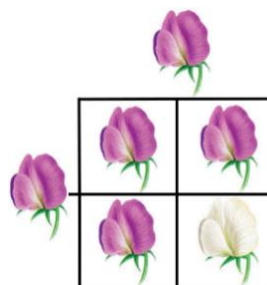




Choose the correct answer: (2 marks for each right answer)

1. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$

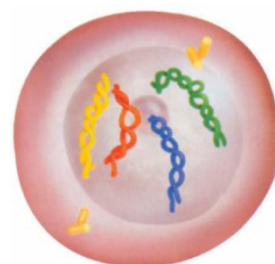


2. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated
B) the plants cross-pollinated
C) the plants self and cross pollinated
D) the fertilization would not occur

3. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken

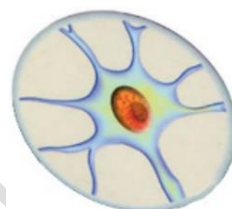


4. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males
B) only in females
C) in males more often than in females
D) in females more often than in males

5. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues



6. Which of the following is made of living and dead cells?

- A) skin
B) hair
C) nail
D) All of them are correct

7. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas
B) small intestine
C) stomach
D) large intestine

8. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach
B) stomach to the pancreas
C) liver to the pancreas
D) stomach to the liver

9. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

10. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23
B) 92
C) 46
D) 44

11. The ovaries are the organs that:-

- A) release the estrogen and progesterone
B) release testosterone
C) make eggs
D) both (A and C) are correct.

12. In the male reproductive system, semen is made: -

- A) only of the sperm
B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands
D) of the sperm and urine

13. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence
B) childhood and adulthood
C) infancy and childhood
D) adolescence and adulthood

14. To keep your teeth healthy:-

- A) brush your teeth as hard as you can
B) floss your teeth at least once a week
C) brush your teeth at least twice a day
D) use a toothbrush until they worn out

15. Modern vaccines contain: -

- A) antibiotic
B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed
D) both (B and C) are correct

16. What does physical dependence mean: -

- A) withdrawal from the drug
B) the body needs more amounts of the drug
C) feel powerful craving for the drug
D) no need for the drug

17. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc
B) fluorine
C) iodine
D) potassium

18. The digestive system breaks down protein into: -

- A) individual amino acids
B) small fat droplets
C) monosaccharides
D) vitamins

19. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid
B) carbonic acid
C) citric acid
D) both (B and C) are correct

20. Which of the following causes chemical weathering of rocks?

- A) water
B) acid
C) wind
D) All of them are correct

21. Which of the following soil properties influences soil moisture?

- A) soil horizon
B) soil fertility
C) soil structure
D) soil pH

22. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion
B) weathering
C) abrasion
D) saltation

23. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing
B) terracing
C) no-till farming
D) cover crop

24. Which of the following causes erosion?

- A) rivers
B) wind and rain
C) ice and snow
D) all of them are correct

25. Which of the following drains a watershed?

- A) a divide.
B) a drainage basin.
C) a tributary.
D) a water system.

26. The stages of river development are divided into: -

- A) 2 stages
B) 3 stages
C) 4 stages
D) 5 stages

27. A.....is an area made up of material deposited by waves.

- A) shoreline
B) beach
C) sea caves
D) watershed

28. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar
B) potassium hydroxide
C) table salt
D) none of them

29. An acid is used to etch glass:-

- A) hydrochloric acid
B) sulfuric acid
C) hydrofluoric acid
D) phosphoric acid.

30. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

31. The pH of calcium hydroxide solution is:-

- A) equal to 7
- B) less than 7
- C) greater than 7
- D) cannot determine

32. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base
- B) acid
- C) magnesium hydroxide
- D) salt

33. Which of the following relationships is the correct way to calculate kinetic energy?

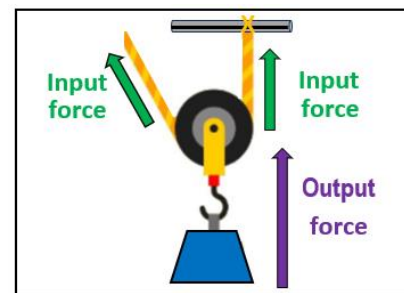
- A) $KE = mv$
- B) $KE = \frac{1}{2} mv$
- C) $KE = \frac{1}{2} mv^2$
- D) $KE = \frac{1}{2} m^2 v$

34. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N)
- B) Joule (J)
- C) Meter (m)
- D) Watt (w)

35. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
- B) A movable pulley, and its mechanical advantage is (1)
- C) A fixed pulley, and its mechanical advantage is (2)
- D) A fixed pulley, and its mechanical advantage is (1)

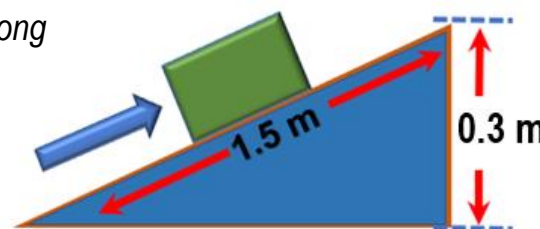


36. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8
- B) 8.3
- C) 150
- D) 900

37. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3
- B) 0.12
- C) 5
- D) 1.2



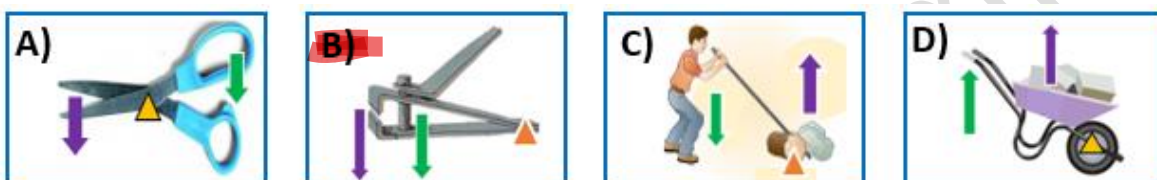
38. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter
- B) Earth and Mars
- C) Uranus and Neptune
- D) Mars and Venus

39. A star begins as a ball of gas and dust pulled together by.....

- A) gravity
- B) heavy metals
- C) electrons and protons
- D) black holes

40. Which of the following shapes is an example of a third -Class Lever?



41. A natural or artificial body that revolves around a planet:

- A) Asteroids
- B) The sun
- C) Satellite
- D) Meteoroid

42. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt
- B) 100 Watt
- C) 1440 Watt
- D) 14400 Watt

43. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5
- B) 0.5
- C) 0.2
- D) 2

44. In which of the following situations work is done?

- A) A crane lifting a car.
- B) you push a wall.
- C) you push a car and it does not move.
- D) both (B and C) are correct

45. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J
- B) 50 J
- C) 500 J
- D) 4800 J

46. Which of the following planets is considered an outer solar system?

- A) Venus
- B) Earth
- C) Uranus
- D) Mercury

47. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

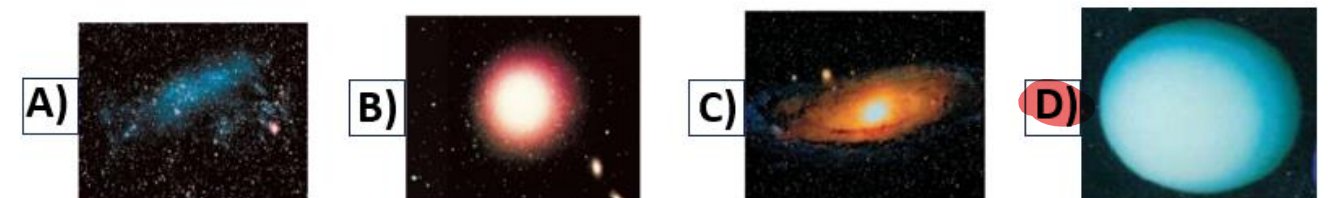
48. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
- B) The color of a star depends on its temperature.
- C) Astronomers classify stars according to temperature and brightness.
- D) All of them are correct

49. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy
- B) Potential energy
- C) Thermal energy
- D) Mechanical energy

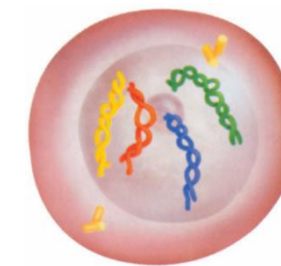
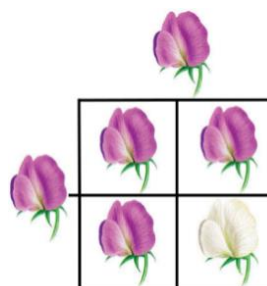
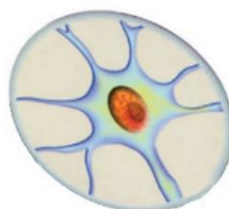
50. All of the following shapes are Galaxies EXCEPT:





Choose the correct answer: (2 marks for each right answer)

- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44



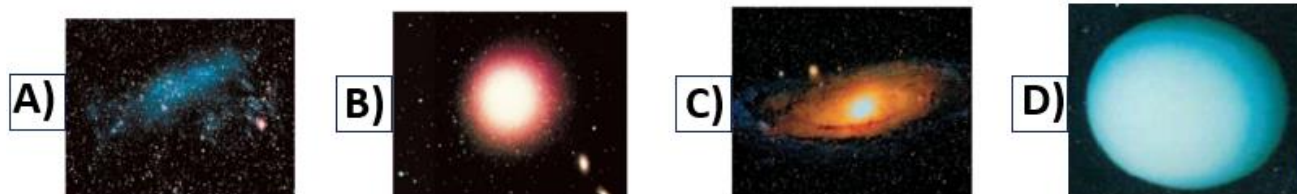
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- Which of the following causes erosion?
A) rivers B) wind and rain C) ice and snow D) all of them are correct
- Which of the following soil properties influences soil moisture?
A) soil horizon B) soil fertility C) soil structure D) soil pH
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- The pH of calcium hydroxide solution is: -
A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion B) weathering C) abrasion D) saltation
- Which of the following causes chemical weathering of rocks?
A) water B) acid C) wind D) All of them are correct
- An acid is used to etch glass:-
A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base B) acid C) magnesium hydroxide D) salt
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar B) potassium hydroxide C) table salt D) none of them
- The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages

29. A is an area made up of material deposited by waves.
A) shoreline **B)** beach **C)** sea caves **D)** watershed
30. In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct
31. Which of the following drains a watershed?
A) a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.

32. A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

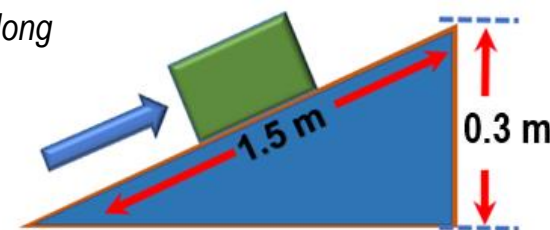
33. A natural or artificial body that revolves around a planet:
A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid

34. All of the following shapes are Galaxies **EXCEPT**:



35. In which of the following situations work is done?
A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct

36. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?



- A)** 3 **B)** 0.12
C) 5 **D)** 1.2
37. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

38. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)

39. A star begins as a ball of gas and dust pulled together by.....:
A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

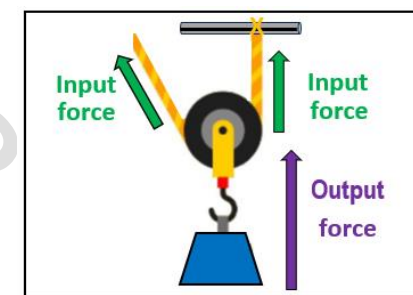
40. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.
A) 3.8 **B)** 8.3 **C)** 150 **D)** 900

41. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?
A) 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

42. Which of the following relationships is the correct way to calculate kinetic energy?
A) $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$

43. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?
A) 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt

44. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?



- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)

45. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

46. Which of the following statements is correct?
A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

47. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....
A) Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus

48. Which of the following shapes is an example of a third -Class Lever?

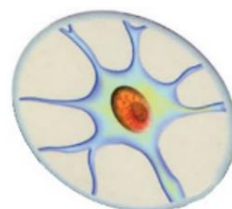
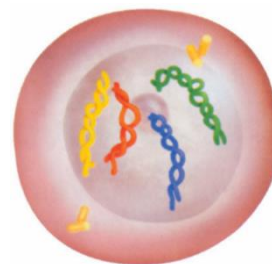


49. Which of the following planets is considered an outer solar system?
A) Venus **B)** Earth **C)** Uranus **D)** Mercury
50. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?
A) 5 **B)** 0.5 **C)** 0.2 **D)** 2

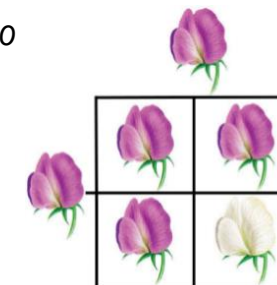


Choose the correct answer: (2 marks for each right answer)

- In the male reproductive system, semen is made: -
A) only of the sperm **B)** only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands **D)** of the sperm and urine
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B)** release testosterone
C) make eggs **D)** both (A and C) are correct.
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B)** fluorine **C)** iodine **D)** potassium
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B)** 92 **C)** 46 **D)** 44
- The digestive system breaks down protein into: -
A) individual amino acids **B)** small fat droplets **C)** monosaccharides **D)** vitamins
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- To keep your teeth healthy:-
A) brush your teeth as hard as you can **B)** floss your teeth at least once a week
C) brush your teeth at least twice a day **D)** use a toothbrush until they worn out
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B)** small intestine **C)** stomach **D)** large intestine
- What does physical dependence mean: -
A) withdrawal from the drug **B)** the body needs more amounts of the drug
C) feel powerful craving for the drug **D)** no need for the drug
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B)** stomach to the pancreas
C) liver to the pancreas **D)** stomach to the liver



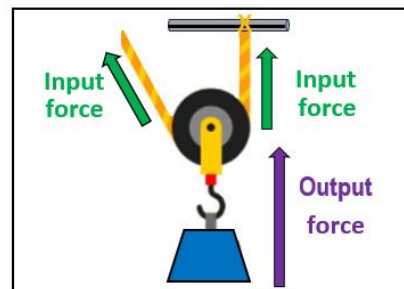
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- Modern vaccines contain: -
A) antibiotic **B)** pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed **D)** both (B and C) are correct
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males **B)** only in females
C) in males more often than in females **D)** in females more often than in males
- Which of the following is made of living and dead cells?
A) skin **B)** hair **C)** nail **D)** All of them are correct
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B)** the plants cross-pollinated
C) the plants self and cross pollinated **D)** the fertilization would not occur
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence **B)** childhood and adulthood
C) infancy and childhood **D)** adolescence and adulthood
- Which of the following soil properties influences soil moisture?
A) soil horizon **B)** soil fertility **C)** soil structure **D)** soil pH
- Which of the following causes chemical weathering of rocks?
A) water **B)** acid **C)** wind **D)** All of them are correct
- An acid is used to etch glass:-
A) hydrochloric acid **B)** sulfuric acid **C)** hydrofluoric acid **D)** phosphoric acid.
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar **B)** potassium hydroxide **C)** table salt **D)** none of them
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing **B)** terracing **C)** no-till farming **D)** cover crop
- In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct
- The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine
- Which of the following drains a watershed?
A) a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.



28. A is an area made up of material deposited by waves.
A) shoreline **B) beach** **C) sea caves** **D) watershed**
29. The stages of river development are divided into: -
A) 2 stages **B) 3 stages** **C) 4 stages** **D) 5 stages**
30. A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
31. Which of the following causes erosion?
A) rivers **B) wind and rain** **C) ice and snow** **D) all of them are correct**
32. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion **B) weathering** **C) abrasion** **D) saltation**
33. In which of the following situations work is done?
A) A crane lifting a car. **B) you push a wall.**
C) you push a car and it does not move. **D) both (B and C) are correct**
34. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?
A) 5 **B) 0.5** **C) 0.2** **D) 2**

35. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B) Potential energy** **C) Thermal energy** **D) Mechanical energy**

36. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

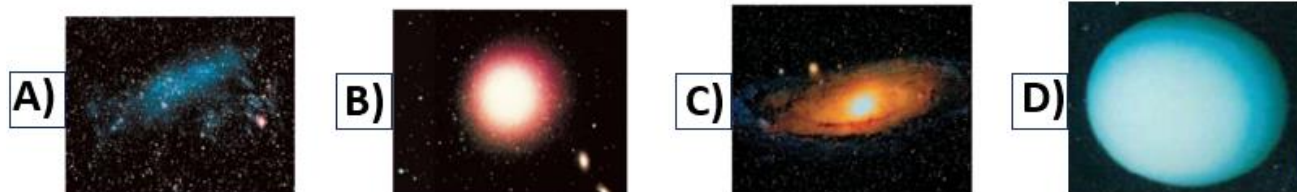


- A) A movable pulley, and its mechanical advantage is (2)**
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)

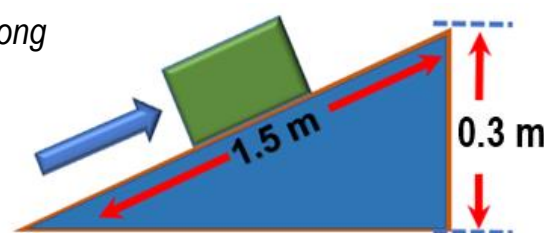
37. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt** **B) 100 Watt** **C) 1440 Watt** **D) 14400 Watt**

38. All of the following shapes are Galaxies **EXCEPT**:



39. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?



- A) 3** **B) 0.12**
C) 5 **D) 1.2**

40. Which of the following planets is considered an outer solar system?

- A) Venus** **B) Earth** **C) Uranus** **D) Mercury**

41. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity** **B) heavy metals** **C) electrons and protons** **D) black holes**

42. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.**
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

43. Which of the following shapes is an example of a third -Class Lever?



44. A natural or artificial body that revolves around a planet:

- A) Asteroids** **B) The sun** **C) Satellite** **D) Meteoroid**

45. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$** **B) $KE = \frac{1}{2} mv$** **C) $KE = \frac{1}{2} mv^2$** **D) $KE = \frac{1}{2} m^2 v$**

46. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

47. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8** **B) 8.3** **C) 150** **D) 900**

48. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter** **B) Earth and Mars** **C) Uranus and Neptune** **D) Mars and Venus**

49. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N)** **B) Joule (J)** **C) Meter (m)** **D) Watt (w)**

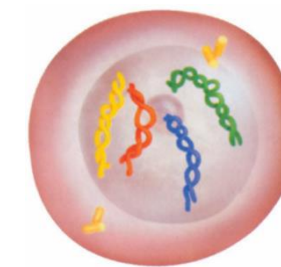
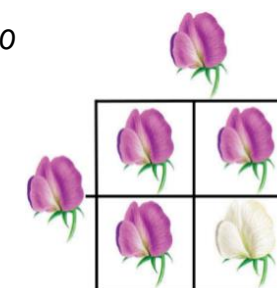
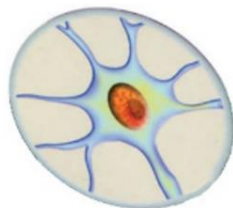
50. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J** **B) 50 J** **C) 500 J** **D) 4800 J**



Choose the correct answer: (2 marks for each right answer)

- In the male reproductive system, semen is made: -
A) only of the sperm **B)** only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands **D)** of the sperm and urine
- Modern vaccines contain: -
A) antibiotic **B)** pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed **D)** both (B and C) are correct
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B)** small intestine **C)** stomach **D)** large intestine
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B)** stomach to the pancreas
C) liver to the pancreas **D)** stomach to the liver
- The digestive system breaks down protein into: -
A) individual amino acids **B)** small fat droplets **C)** monosaccharides **D)** vitamins
- What does physical dependence mean: -
A) withdrawal from the drug **B)** the body needs more amounts of the drug
C) feel powerful craving for the drug **D)** no need for the drug
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B)** the plants cross-pollinated
C) the plants self and cross pollinated **D)** the fertilization would not occur
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B)** fluorine **C)** iodine **D)** potassium
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B)** 92 **C)** 46 **D)** 44
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B)** release testosterone
C) make eggs **D)** both (A and C) are correct.
- To keep your teeth healthy:-
A) brush your teeth as hard as you can **B)** floss your teeth at least once a week
C) brush your teeth at least twice a day **D)** use a toothbrush until they worn out



- Which of the following is made of living and dead cells?
A) skin **B)** hair **C)** nail **D)** All of them are correct
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males **B)** only in females
C) in males more often than in females **D)** in females more often than in males
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence **B)** childhood and adulthood
C) infancy and childhood **D)** adolescence and adulthood
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion **B)** weathering **C)** abrasion **D)** saltation
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar **B)** potassium hydroxide **C)** table salt **D)** none of them
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- An acid is used to etch glass:-
A) hydrochloric acid **B)** sulfuric acid **C)** hydrofluoric acid **D)** phosphoric acid.
- A.....is an area made up of material deposited by waves.
A) shoreline **B)** beach **C)** sea caves **D)** watershed
- The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine
- Which of the following causes erosion?
A) rivers **B)** wind and rain **C)** ice and snow **D)** all of them are correct
- The stages of river development are divided into: -
A) 2 stages **B)** 3 stages **C)** 4 stages **D)** 5 stages
- In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct

29. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing **B)** terracing **C)** no-till farming **D)** cover crop

30. Which of the following soil properties influences soil moisture?
A) soil horizon **B)** soil fertility **C)** soil structure **D)** soil pH

31. Which of the following causes chemical weathering of rocks?
A) water **B)** acid **C)** wind **D)** All of them are correct

32. Which of the following drains a watershed?
A) a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.

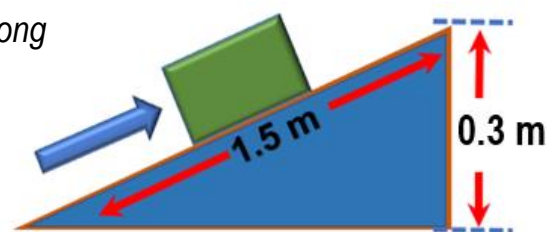
33. In which of the following situations work is done?
A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct

34. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

35. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

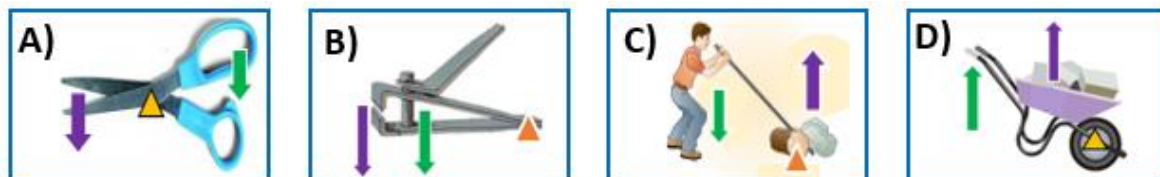
- A)** 3 **B)** 0.12
C) 5 **D)** 1.2



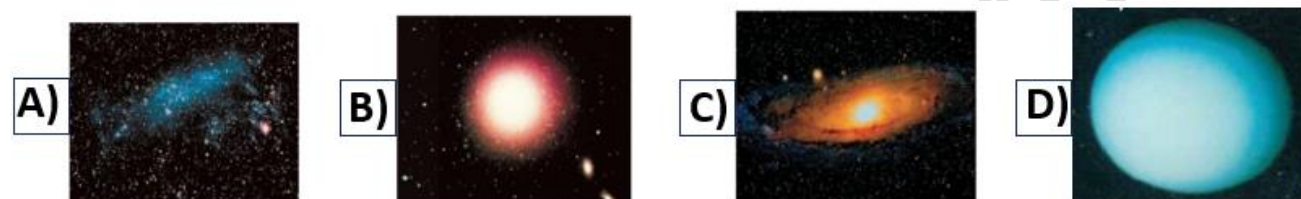
36. A natural or artificial body that revolves around a planet:
A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid

37. A star begins as a ball of gas and dust pulled together by.....:
A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

38. Which of the following shapes is an example of a third -Class Lever?



39. All of the following shapes are Galaxies EXCEPT:



40. Which of the following statements is correct?
A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

41. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)

42. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

43. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A)** 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt

44. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A)** 5 **B)** 0.5 **C)** 0.2 **D)** 2

45. Which of the following planets is considered an outer solar system?

- A)** Venus **B)** Earth **C)** Uranus **D)** Mercury

46. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A)** Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus

47. Which of the following relationships is the correct way to calculate kinetic energy?

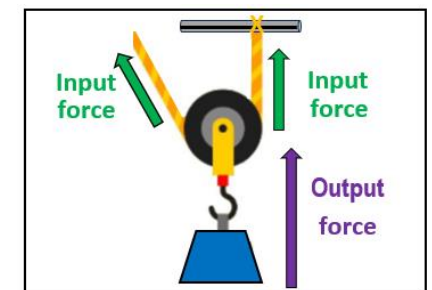
- A)** $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$

48. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A)** 3.8 **B)** 8.3 **C)** 150 **D)** 900

49. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



50. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A)** 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

29. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

30. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion B) weathering C) abrasion D) saltation

31. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

32. The stages of river development are divided into:-

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

33. Which of the following is a unit for Gravitational Potential energy (PE)?

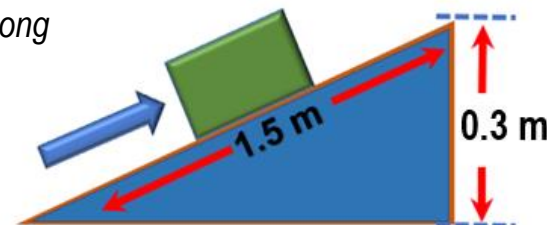
- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

34. A heavy box is pushed up a ramp that has an incline of 1.5 m long

and 0.3 m high. What is the mechanical advantage

of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



35. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

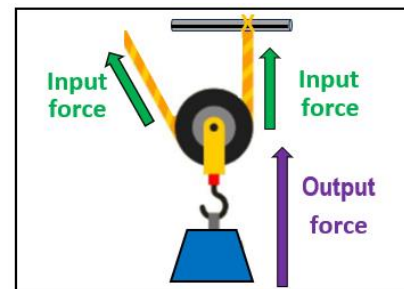
36. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

37. What type of pulley is shown in the adjacent figure,

and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



38. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

39. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

40. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

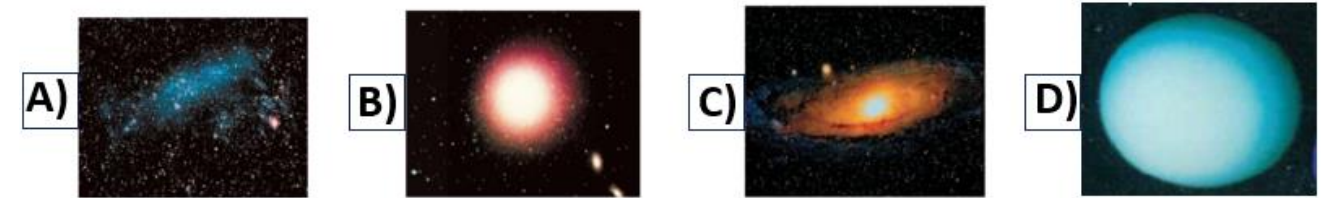
41. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

42. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

43. All of the following shapes are Galaxies **EXCEPT**:



44. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

45. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

46. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

47. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

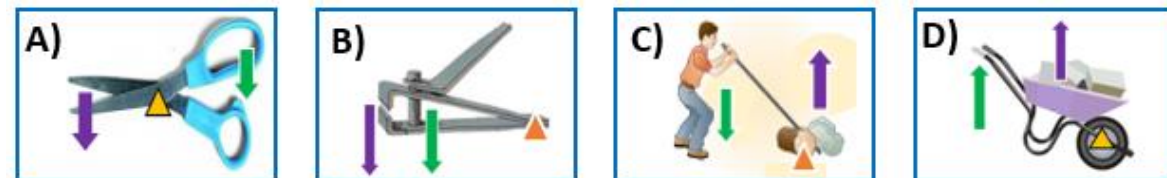
48. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

49. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

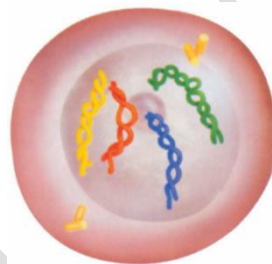
50. Which of the following shapes is an example of a third -Class Lever?



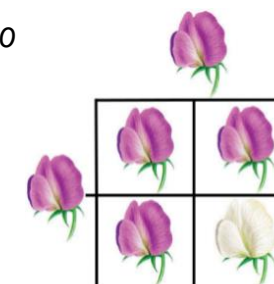
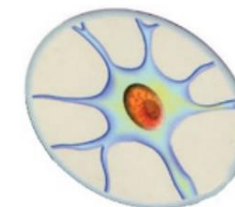


Choose the correct answer: (2 marks for each right answer)

- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B)** stomach to the pancreas
C) liver to the pancreas **D)** stomach to the liver
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B)** the plants cross-pollinated
C) the plants self and cross pollinated **D)** the fertilization would not occur
- Modern vaccines contain: -
A) antibiotic **B)** pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed **D)** both (B and C) are correct
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B)** fluorine **C)** iodine **D)** potassium
- The digestive system breaks down protein into: -
A) individual amino acids **B)** small fat droplets **C)** monosaccharides **D)** vitamins
- Which of the following is made of living and dead cells?
A) skin **B)** hair **C)** nail **D)** All of them are correct
- In the male reproductive system, semen is made: -
A) only of the sperm **B)** only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands **D)** of the sperm and urine
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- What does physical dependence mean: -
A) withdrawal from the drug **B)** the body needs more amounts of the drug
C) feel powerful craving for the drug **D)** no need for the drug
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B)** 92 **C)** 46 **D)** 44
- To keep your teeth healthy:-
A) brush your teeth as hard as you can **B)** floss your teeth at least once a week
C) brush your teeth at least twice a day **D)** use a toothbrush until they worn out
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B)** small intestine **C)** stomach **D)** large intestine



- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males **B)** only in females
C) in males more often than in females **D)** in females more often than in males
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence **B)** childhood and adulthood
C) infancy and childhood **D)** adolescence and adulthood
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B)** release testosterone
C) make eggs **D)** both (A and C) are correct.
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- An acid is used to etch glass:-
A) hydrochloric acid **B)** sulfuric acid **C)** hydrofluoric acid **D)** phosphoric acid.
- Which of the following causes chemical weathering of rocks?
A) water **B)** acid **C)** wind **D)** All of them are correct
- Which of the following drains a watershed?
A) a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.
- The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt
- Which of the following causes erosion?
A) rivers **B)** wind and rain **C)** ice and snow **D)** all of them are correct



26. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

27. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

28. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

29. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

30. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

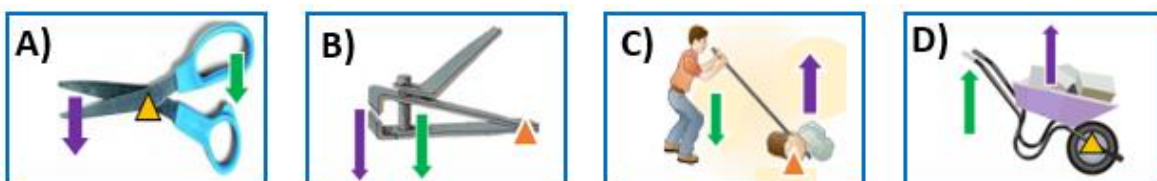
31. A.....is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

32. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

33. Which of the following shapes is an example of a third -Class Lever?



34. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

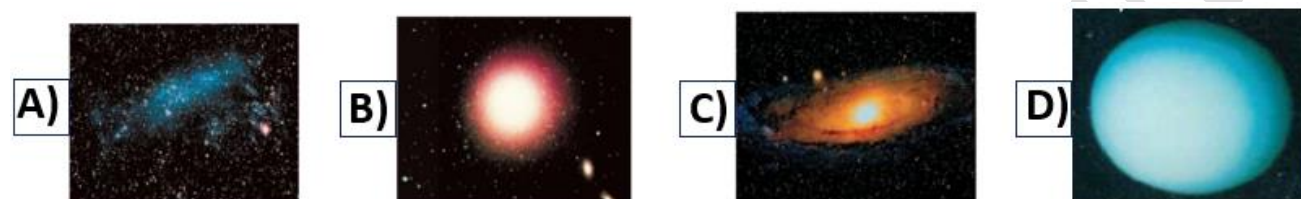
35. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

36. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

37. All of the following shapes are Galaxies EXCEPT:



38. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

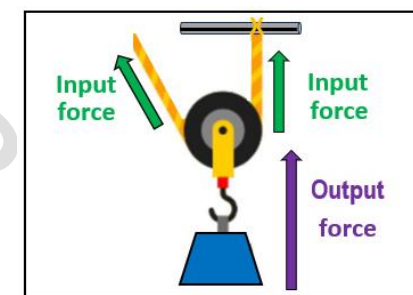
- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

39. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall. C) you push a car and it does not move. D) both (B and C) are correct

40. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



41. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

42. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

43. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

44. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

45. A natural or artificial body that revolves around a planet:

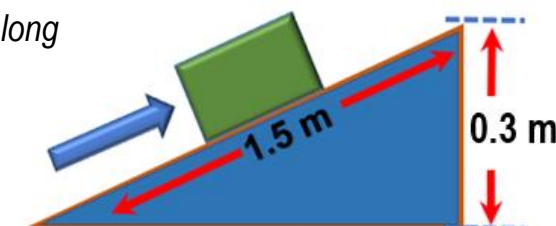
- A) Asteroids B) The sun C) Satellite D) Meteoroid

46. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

47. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



48. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

49. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

50. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2v$

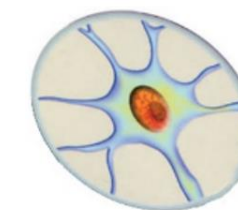


Choose the correct answer: (2 marks for each right answer)

- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct

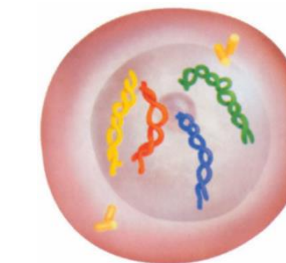
14. The function of the tissue shown in the adjacent figure:-

- is made of cells that contract and relax to produce movement
- joins organs
- sends electrical signals through the body
- covers and protects underlying tissues



15. The adjacent figure shows a stage(step) of mitosis,

- homologous chromosomes line up along the equator of the cell
- chromosomes reduce the thickness
- homologous chromatids line up along the equator of the cell
- chromosomes thicken

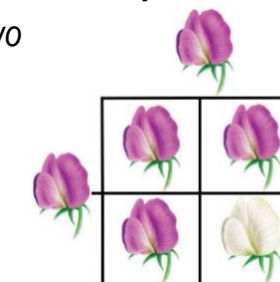


16. The digestive system breaks down protein into: -

- individual amino acids
- small fat droplets
- monosaccharides
- vitamins

17. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- $PP \times PP$
- $PP \times Pp$
- $Pp \times Pp$
- $pp \times pp$



18. To keep your teeth healthy:-

- brush your teeth as hard as you can
- floss your teeth at least once a week
- brush your teeth at least twice a day
- use a toothbrush until they worn out

19. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- base
- acid
- magnesium hydroxide
- salt

20. Which of the following drains a watershed?

- a divide.
- a drainage basin.
- a tributary.
- a water system.

21. A.....is an area made up of material deposited by waves.

- shoreline
- beach
- sea caves
- watershed

22. Which of the following soil properties influences soil moisture?

- soil horizon
- soil fertility
- soil structure
- soil pH

23. The pH of calcium hydroxide solution is: -

- equal to 7
- less than 7
- greater than 7
- cannot determine

24. Which of the following causes chemical weathering of rocks?

- water
- acid
- wind
- All of them are correct

25. In certain places ground water contains acids, such as:-

- hydrofluoric acid
- carbonic acid
- citric acid
- both (B and C) are correct

26. Is a chemical compound formed by the sharing of valence electrons:-

- sugar
- potassium hydroxide
- table salt
- none of them

27. An acid is used to etch glass:-

- hydrochloric acid
- sulfuric acid
- hydrofluoric acid
- phosphoric acid.

28. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- contour plowing
- terracing
- no-till farming
- cover crop

29. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

30. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion
- B) weathering
- C) abrasion
- D) saltation

31. The stages of river development are divided into: -

- A) 2 stages
- B) 3 stages
- C) 4 stages
- D) 5 stages

32. Which of the following causes erosion?

- A) rivers
- B) wind and rain
- C) ice and snow
- D) all of them are correct

33. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt
- B) 100 Watt
- C) 1440 Watt
- D) 14400 Watt

34. A natural or artificial body that revolves around a planet:

- A) Asteroids
- B) The sun
- C) Satellite
- D) Meteoroid

35. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N)
- B) Joule (J)
- C) Meter (m)
- D) Watt (w)

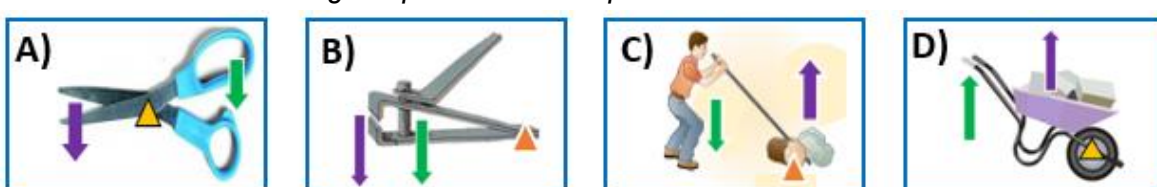
36. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

37. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8
- B) 8.3
- C) 150
- D) 900

38. Which of the following shapes is an example of a third -Class Lever?



39. In which of the following situations work is done?

- A) A crane lifting a car.
- B) you push a wall.
- C) you push a car and it does not move.
- D) both (B and C) are correct

40. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy
- B) Potential energy
- C) Thermal energy
- D) Mechanical energy

41. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity
- B) heavy metals
- C) electrons and protons
- D) black holes

42. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5
- B) 0.5
- C) 0.2
- D) 2

43. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
- B) The color of a star depends on its temperature.
- C) Astronomers classify stars according to temperature and brightness.
- D) All of them are correct

44. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

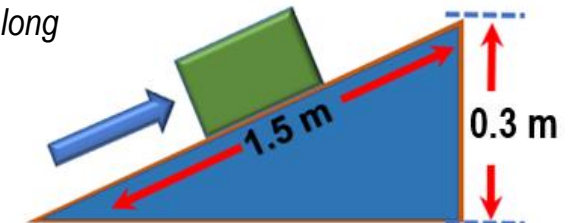
- A) 32 J
- B) 50 J
- C) 500 J
- D) 4800 J

45. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter
- B) Earth and Mars
- C) Uranus and Neptune
- D) Mars and Venus

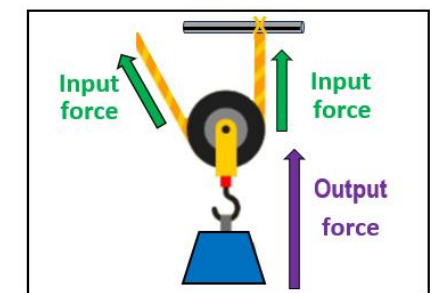
46. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3
- B) 0.12
- C) 5
- D) 1.2

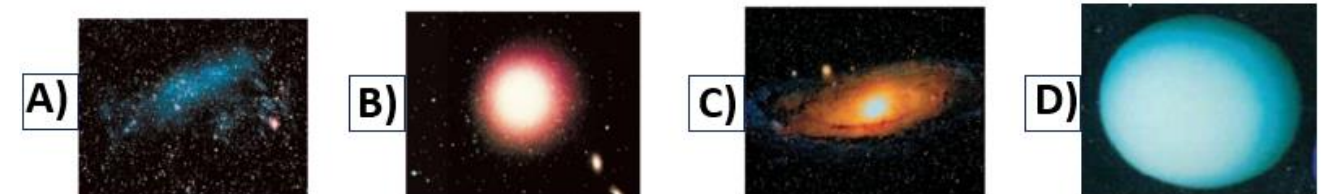


47. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
- B) A movable pulley, and its mechanical advantage is (1)
- C) A fixed pulley, and its mechanical advantage is (2)
- D) A fixed pulley, and its mechanical advantage is (1)



48. All of the following shapes are Galaxies EXCEPT:



49. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$
- B) $KE = \frac{1}{2} mv$
- C) $KE = \frac{1}{2} mv^2$
- D) $KE = \frac{1}{2} m^2 v$

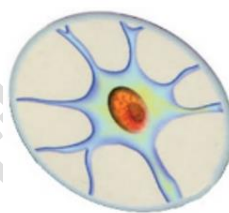
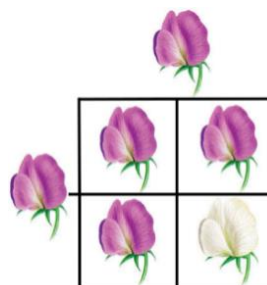
50. Which of the following planets is considered an outer solar system?

- A) Venus
- B) Earth
- C) Uranus
- D) Mercury



Choose the correct answer: (2 marks for each right answer)

- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B) the plants cross-pollinated**
C) the plants self and cross pollinated **D) the fertilization would not occur**
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) PP × PP
B) PP × Pp
C) Pp × Pp
D) pp × pp
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B) small intestine** **C) stomach** **D) large intestine**
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B) fluorine** **C) iodine** **D) potassium**
- Which of the following is made of living and dead cells?
A) skin **B) hair** **C) nail** **D) All of them are correct**
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B) 92** **C) 46** **D) 44**
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B) stomach to the pancreas**
C) liver to the pancreas **D) stomach to the liver**
- The digestive system breaks down protein into: -
A) individual amino acids **B) small fat droplets** **C) monosaccharides** **D) vitamins**
- What does physical dependence mean: -
A) withdrawal from the drug **B) the body needs more amounts of the drug**
C) feel powerful craving for the drug **D) no need for the drug**
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males **B) only in females**
C) in males more often than in females **D) in females more often than in males**



13.After birth the two periods of most rapid growth are:-

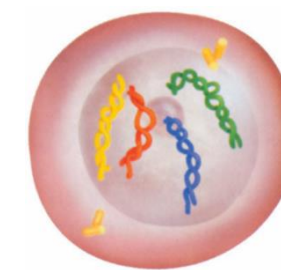
- A) childhood and adolescence** **B) childhood and adulthood**
C) infancy and childhood **D) adolescence and adulthood**

14.Modern vaccines contain: -

- A) antibiotic** **B) pathogens that are specially treated so that they cannot make you very sick**
C) pathogens that are killed **D) both (B and C) are correct**

15.The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell**
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



16.In the male reproductive system, semen is made: -

- A) only of the sperm** **B) only of the fluids from male reproductive system glands**
C) the sperm and the fluids from male reproductive system glands **D) of the sperm and urine**

17.To keep your teeth healthy:-

- A) brush your teeth as hard as you can** **B) floss your teeth at least once a week**
C) brush your teeth at least twice a day **D) use a toothbrush until they worn out**

18.The ovaries are the organs that:-

- A) release the estrogen and progesterone** **B) release testosterone**
C) make eggs **D) both (A and C) are correct.**

19.Which of the following causes chemical weathering of rocks?

- A) water** **B) acid** **C) wind** **D) All of them are correct**

20.Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing** **B) terracing** **C) no-till farming** **D) cover crop**

21.Which of the following soil properties influences soil moisture?

- A) soil horizon** **B) soil fertility** **C) soil structure** **D) soil pH**

22.Which of the following drains a watershed?

- A) a divide.** **B) a drainage basin.** **C) a tributary.** **D) a water system.**

23.In certain places ground water contains acids, such as:-

- A) hydrofluoric acid** **B) carbonic acid** **C) citric acid** **D) both (B and C) are correct**

24.The stages of river development are divided into: -

- A) 2 stages** **B) 3 stages** **C) 4 stages** **D) 5 stages**

25.Which of the following causes erosion?

- A) rivers** **B) wind and rain** **C) ice and snow** **D) all of them are correct**

26.The pH of calcium hydroxide solution is: -

- A) equal to 7** **B) less than 7** **C) greater than 7** **D) cannot determine**

27.An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base** **B) acid** **C) magnesium hydroxide** **D) salt**

28.A.....is an area made up of material deposited by waves.

- A) shoreline** **B) beach** **C) sea caves** **D) watershed**

29. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

30. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar
- B) potassium hydroxide
- C) table salt
- D) none of them

31. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion
- B) weathering
- C) abrasion
- D) saltation

32. An acid is used to etch glass:-

- A) hydrochloric acid
- B) sulfuric acid
- C) hydrofluoric acid
- D) phosphoric acid.

33. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N)
- B) Joule (J)
- C) Meter (m)
- D) Watt (w)

34. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$
- B) $KE = \frac{1}{2} mv$
- C) $KE = \frac{1}{2} mv^2$
- D) $KE = \frac{1}{2} m^2 v$

35. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity
- B) heavy metals
- C) electrons and protons
- D) black holes

36. A natural or artificial body that revolves around a planet:

- A) Asteroids
- B) The sun
- C) Satellite
- D) Meteoroid

37. When energy changes from one form to another, some of the energy always changes into:

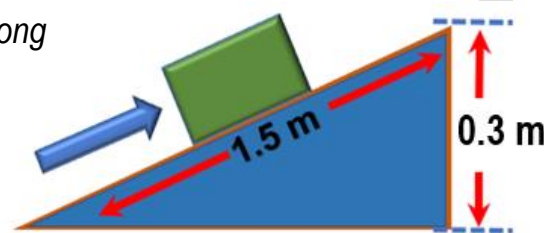
- A) Kinetic energy
- B) Potential energy
- C) Thermal energy
- D) Mechanical energy

38. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter
- B) Earth and Mars
- C) Uranus and Neptune
- D) Mars and Venus

39. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

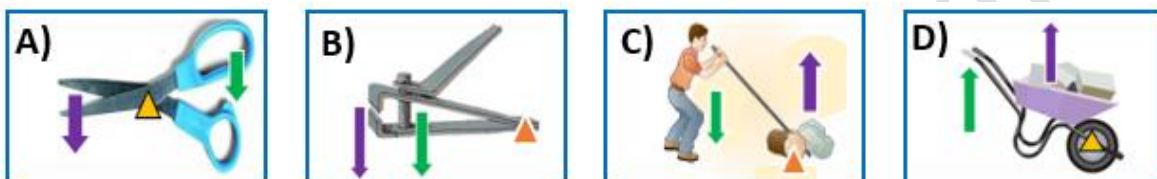
- A) 3
- B) 0.12
- C) 5
- D) 1.2



40. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt
- B) 100 Watt
- C) 1440 Watt
- D) 14400 Watt

41. Which of the following shapes is an example of a third -Class Lever?



42. All of the following shapes are Galaxies EXCEPT:



43. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
- B) The color of a star depends on its temperature.
- C) Astronomers classify stars according to temperature and brightness.
- D) All of them are correct

44. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8
- B) 8.3
- C) 150
- D) 900

45. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

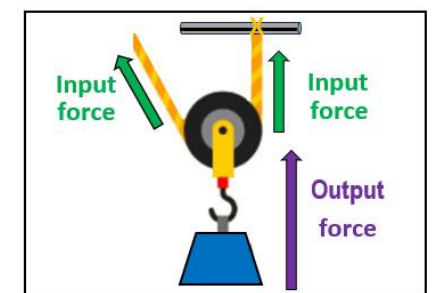
- A) 32 J
- B) 50 J
- C) 500 J
- D) 4800 J

46. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

47. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
- B) A movable pulley, and its mechanical advantage is (1)
- C) A fixed pulley, and its mechanical advantage is (2)
- D) A fixed pulley, and its mechanical advantage is (1)



48. In which of the following situations work is done?

- A) A crane lifting a car.
- B) you push a wall.
- C) you push a car and it does not move.
- D) both (B and C) are correct

49. Which of the following planets is considered an outer solar system?

- A) Venus
- B) Earth
- C) Uranus
- D) Mercury

50. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

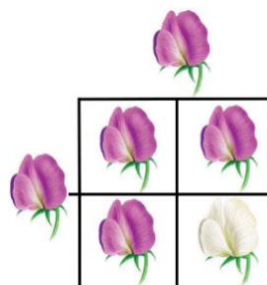
- A) 5
- B) 0.5
- C) 0.2
- D) 2



Choose the correct answer: (2 marks for each right answer)

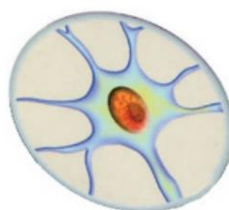
1. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
- B) $PP \times Pp$
- C) $Pp \times Pp$
- D) $pp \times pp$



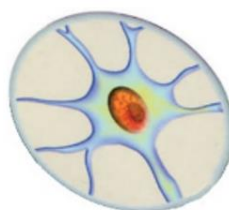
2. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas
- B) small intestine
- C) stomach
- D) large intestine



3. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
- B) joins organs
- C) sends electrical signals through the body
- D) covers and protects underlying tissues



4. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc
- B) fluorine
- C) iodine
- D) potassium

5. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated
- B) the plants cross-pollinated
- C) the plants self and cross pollinated
- D) the fertilization would not occur

6. Which of the following is made of living and dead cells?

- A) skin
- B) hair
- C) nail
- D) All of them are correct

7. The ovaries are the organs that:-

- A) release the estrogen and progesterone
- B) release testosterone
- C) make eggs
- D) both (A and C) are correct.

8. In the male reproductive system, semen is made: -

- A) only of the sperm
- B) only of the fluids from male reproductive system glands
- C) the sperm and the fluids from male reproductive system glands
- D) of the sperm and urine

9. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
- B) a concentrated mixture of waste materials
- C) most water and a concentrated mixture of waste materials
- D) some nutrients and a concentrated mixture of waste materials

10. What does physical dependence mean: -

- A) withdrawal from the drug
- B) the body needs more amounts of the drug
- C) feel powerful craving for the drug
- D) no need for the drug

11. To keep your teeth healthy:-

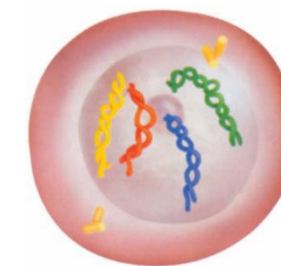
- A) brush your teeth as hard as you can
- B) floss your teeth at least once a week
- C) brush your teeth at least twice a day
- D) use a toothbrush until they worn out

12. Modern vaccines contain: -

- A) antibiotic
- B) pathogens that are specially treated so that they cannot make you very sick
- C) pathogens that are killed
- D) both (B and C) are correct

13. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
- B) chromosomes reduce the thickness
- C) homologous chromatids line up along the equator of the cell
- D) chromosomes thicken



14. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23
- B) 92
- C) 46
- D) 44

15. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males
- B) only in females
- C) in males more often than in females
- D) in females more often than in males

16. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach
- B) stomach to the pancreas
- C) liver to the pancreas
- D) stomach to the liver

17. The digestive system breaks down protein into: -

- A) individual amino acids
- B) small fat droplets
- C) monosaccharides
- D) vitamins

18. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence
- B) childhood and adulthood
- C) infancy and childhood
- D) adolescence and adulthood

19. Which of the following drains a watershed?

- A) a divide.
- B) a drainage basin.
- C) a tributary.
- D) a water system.

20. An acid is used to etch glass:-

- A) hydrochloric acid
- B) sulfuric acid
- C) hydrofluoric acid
- D) phosphoric acid.

21. Which of the following causes erosion?

- A) rivers
- B) wind and rain
- C) ice and snow
- D) all of them are correct

22. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion
- B) weathering
- C) abrasion
- D) saltation

23. Which of the following soil properties influences soil moisture?

- A) soil horizon
- B) soil fertility
- C) soil structure
- D) soil pH

24. The stages of river development are divided into: -

- A) 2 stages
- B) 3 stages
- C) 4 stages
- D) 5 stages

25. The pH of calcium hydroxide solution is: -

- A) equal to 7
- B) less than 7
- C) greater than 7
- D) cannot determine

26. A base is a substance that:-

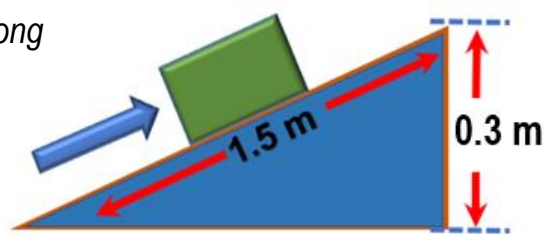
- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

27. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing
- B) terracing
- C) no-till farming
- D) cover crop

28. A is an area made up of material deposited by waves.
A) shoreline **B)** beach **C)** sea caves **D)** watershed
29. Which of the following causes chemical weathering of rocks?
A) water **B)** acid **C)** wind **D)** All of them are correct
30. In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct
31. An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt
32. Is a chemical compound formed by the sharing of valence electrons:-
A) sugar **B)** potassium hydroxide **C)** table salt **D)** none of them
33. Which of the following relationships is the correct way to calculate kinetic energy?
A) $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$
34. A star begins as a ball of gas and dust pulled together by.....
A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

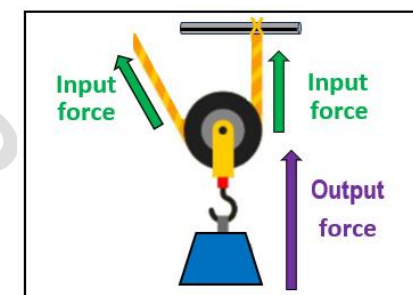
35. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?



- A)** 3 **B)** 0.12
C) 5 **D)** 1.2
36. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy
37. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)
38. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....
A) Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus
39. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?
A) 5 **B)** 0.5 **C)** 0.2 **D)** 2
40. In which of the following situations work is done?
A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct
41. A natural or artificial body that revolves around a planet:
A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid
42. Which of the following statements is correct?
A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct
43. Which of the following planets is considered an outer solar system?
A) Venus **B)** Earth **C)** Uranus **D)** Mercury
44. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

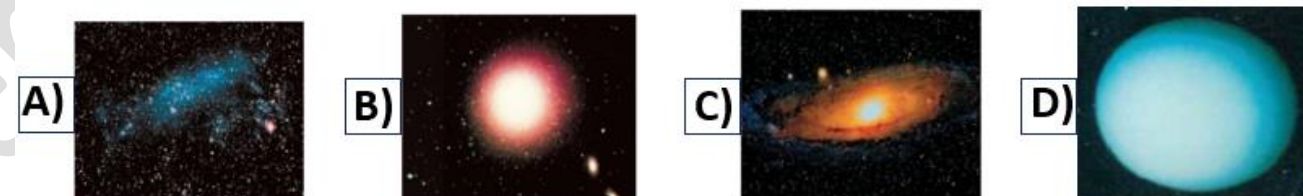
45. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?



- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)
46. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?
A) 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt
47. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.
A) 3.8 **B)** 8.3 **C)** 150 **D)** 900
48. Which of the following shapes is an example of a third -Class Lever?



49. All of the following shapes are Galaxies **EXCEPT**:

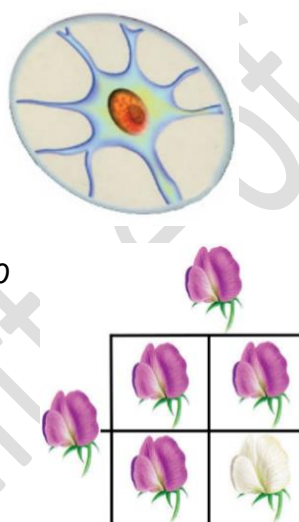


50. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?
A) 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

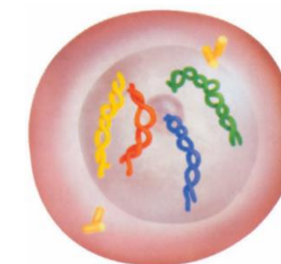


Choose the correct answer: (2 marks for each right answer)

- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct



- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Which of the following soil properties influences soil moisture?
A) soil horizon B) soil fertility C) soil structure D) soil pH
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion B) weathering C) abrasion D) saltation
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar B) potassium hydroxide C) table salt D) none of them
- An acid is used to etch glass:-
A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.
- A.....is an area made up of material deposited by waves.
A) shoreline B) beach C) sea caves D) watershed
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base B) acid C) magnesium hydroxide D) salt
- The pH of calcium hydroxide solution is: -
A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine
- Which of the following drains a watershed?
A) a divide. B) a drainage basin. C) a tributary. D) a water system.
- In certain places ground water contains acids, such as:-
A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct



30. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

31. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

32. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

33. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

34. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

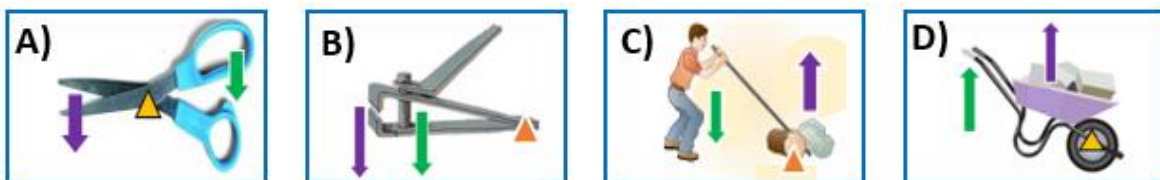
35. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

36. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

37. Which of the following shapes is an example of a third -Class Lever?

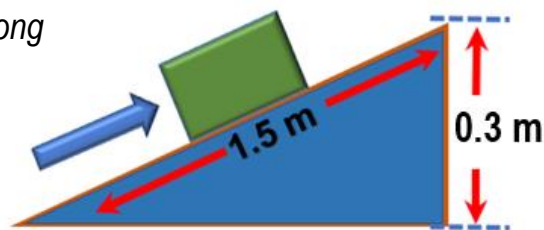


38. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

39. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



40. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

41. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

42. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

43. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

44. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

45. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

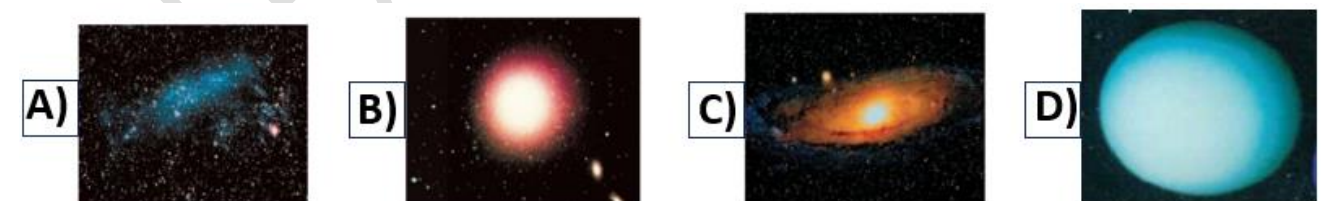
46. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

47. A star begins as a ball of gas and dust pulled together by.....:

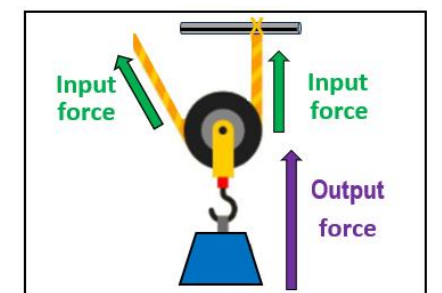
- A) gravity B) heavy metals C) electrons and protons D) black holes

48. All of the following shapes are Galaxies **EXCEPT**:



49. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



50. A natural or artificial body that revolves around a planet:

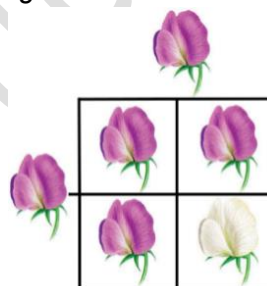
- A) Asteroids B) The sun C) Satellite D) Meteoroid



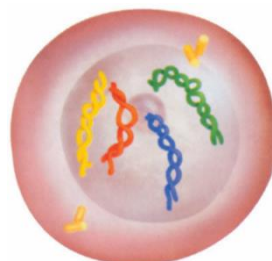
Choose the correct answer: (2 marks for each right answer)

- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$

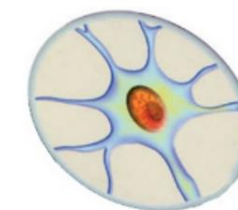


- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



12. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues



13. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver

14. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood

15. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc B) fluorine C) iodine D) potassium

16. What does physical dependence mean: -

- A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug

17. Modern vaccines contain: -

- A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct

18. The digestive system breaks down protein into: -

- A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins

19. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

20. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

21. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

22. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

23. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

24. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

25. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base B) acid C) magnesium hydroxide D) salt

26. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

27. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

28. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

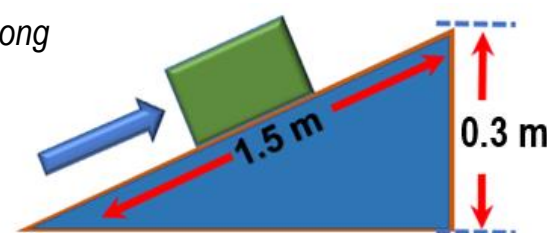
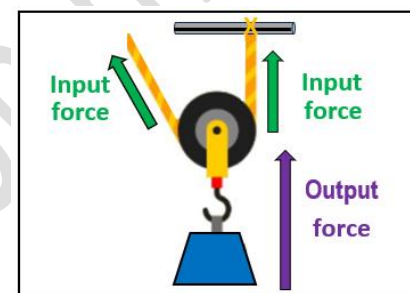
29. A.....is an area made up of material deposited by waves.
A) shoreline **B)** beach **C)** sea caves **D)** watershed
30. An acid is used to etch glass:-
A) hydrochloric acid **B)** sulfuric acid **C)** hydrofluoric acid **D)** phosphoric acid.
31. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion **B)** weathering **C)** abrasion **D)** saltation
32. The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine
33. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)
34. In which of the following situations work is done?
A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct
35. A natural or artificial body that revolves around a planet:
A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid
36. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?
A) 5 **B)** 0.5 **C)** 0.2 **D)** 2
37. Which of the following planets is considered an outer solar system?
A) Venus **B)** Earth **C)** Uranus **D)** Mercury
38. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?
A) 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt
39. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....
A) Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus
40. A star begins as a ball of gas and dust pulled together by.....:
A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes
41. Which of the following relationships is the correct way to calculate kinetic energy?
A) $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$
42. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.
A) 3.8 **B)** 8.3 **C)** 150 **D)** 900

43. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

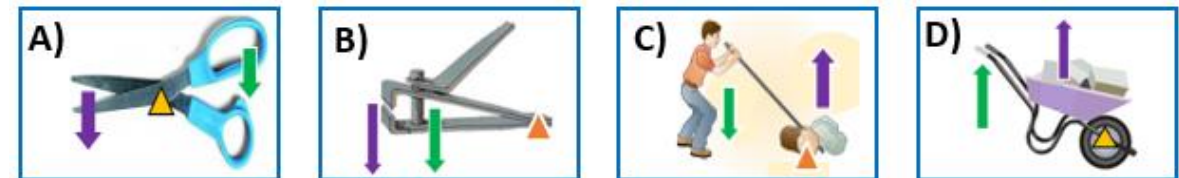
- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)

44. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A)** 3 **B)** 0.12
C) 5 **D)** 1.2



45. Which of the following shapes is an example of a third -Class Lever?



46. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A)** 32 J **B)** 50 J **C)** 500 J **D)** 4800 J
47. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

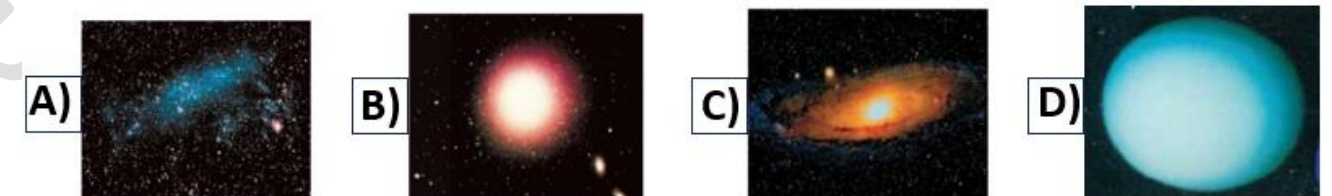
48. Which of the following statements is correct?

- A)** Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

49. Which of the following statements represents a correct energy transformation?

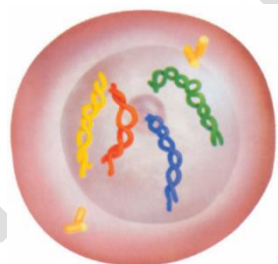
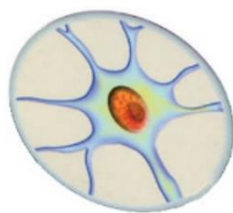
A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

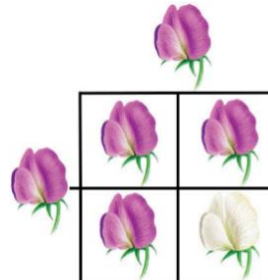
50. All of the following shapes are Galaxies EXCEPT:





Choose the correct answer: (2 marks for each right answer)

- After birth the two periods of most rapid growth are:-
A) childhood and adolescence **B) childhood and adulthood**
C) infancy and childhood **D) adolescence and adulthood**
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B) fluorine** **C) iodine** **D) potassium**
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B) 92** **C) 46** **D) 44**
- Modern vaccines contain: -
A) antibiotic **B) pathogens that are specially treated so that they cannot make you very sick**
C) pathogens that are killed **D) both (B and C) are correct**
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males **B) only in females**
C) in males more often than in females **D) in females more often than in males**
- What does physical dependence mean: -
A) withdrawal from the drug **B) the body needs more amounts of the drug**
C) feel powerful craving for the drug **D) no need for the drug**
- To keep your teeth healthy:-
A) brush your teeth as hard as you can **B) floss your teeth at least once a week**
C) brush your teeth at least twice a day **D) use a toothbrush until they worn out**
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- Which of the following is made of living and dead cells?
A) skin **B) hair** **C) nail** **D) All of them are correct**
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B) stomach to the pancreas**
C) liver to the pancreas **D) stomach to the liver**
- The function of the tissue shown in the adjacent figure:-

A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In the male reproductive system, semen is made: -
A) only of the sperm **B) only of the fluids from male reproductive system glands**
C) the sperm and the fluids from male reproductive system glands **D) of the sperm and urine**

- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The digestive system breaks down protein into: -
A) individual amino acids **B) small fat droplets** **C) monosaccharides** **D) vitamins**
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

A) PP × PP
B) PP × Pp
C) Pp × Pp
D) pp × pp
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B) small intestine** **C) stomach** **D) large intestine**
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B) release testosterone**
C) make eggs **D) both (A and C) are correct.**
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B) the plants cross-pollinated**
C) the plants self and cross pollinated **D) the fertilization would not occur**
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B) acid** **C) magnesium hydroxide** **D) salt**
- The stages of river development are divided into: -
A) 2 stages **B) 3 stages** **C) 4 stages** **D) 5 stages**
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- Which of the following soil properties influences soil moisture?
A) soil horizon **B) soil fertility** **C) soil structure** **D) soil pH**
- In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B) carbonic acid** **C) citric acid** **D) both (B and C) are correct**
- Which of the following drains a watershed?
A) a divide. **B) a drainage basin.** **C) a tributary.** **D) a water system.**
- Which of the following causes chemical weathering of rocks?
A) water **B) acid** **C) wind** **D) All of them are correct**
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing **B) terracing** **C) no-till farming** **D) cover crop**
- The pH of calcium hydroxide solution is: -
A) equal to 7 **B) less than 7** **C) greater than 7** **D) cannot determine**
- An acid is used to etch glass:-
A) hydrochloric acid **B) sulfuric acid** **C) hydrofluoric acid** **D) phosphoric acid.**

29. A is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

30. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

31. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

32. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion B) weathering C) abrasion D) saltation

33. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

34. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

35. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

36. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

37. One astronomical unit (AU) is the average distance between the earth and sun; approximately million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

38. Which of the following statements is correct?

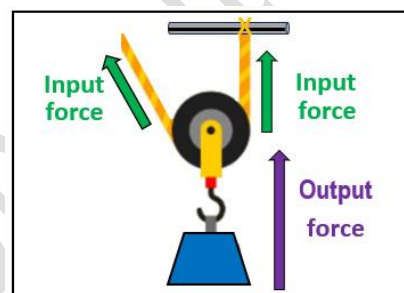
- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

39. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

40. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

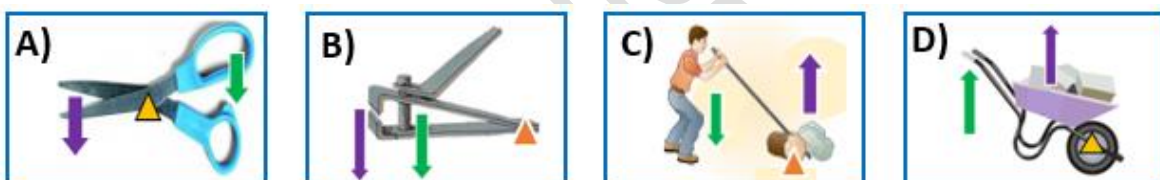
- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



41. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

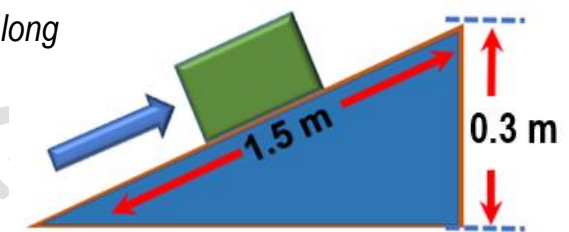
- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

42. Which of the following shapes is an example of a third -Class Lever?



43. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



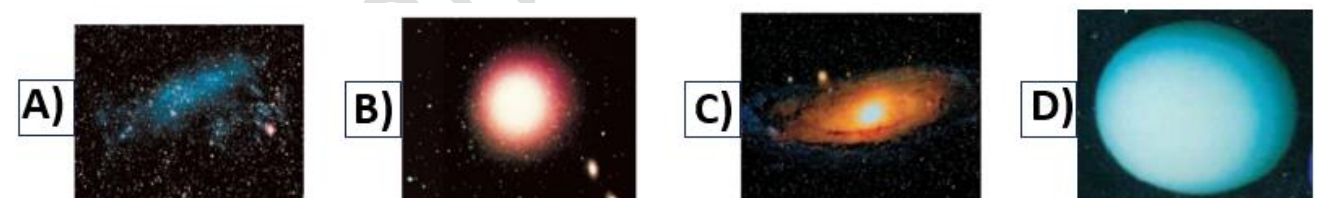
44. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

45. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

46. All of the following shapes are Galaxies EXCEPT:



47. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

48. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

49. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

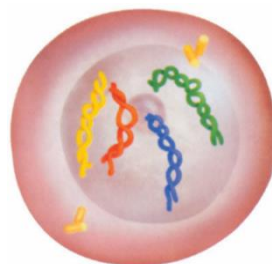
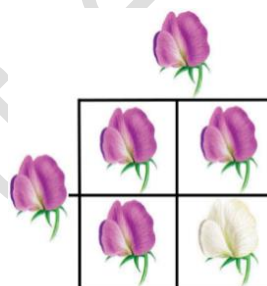
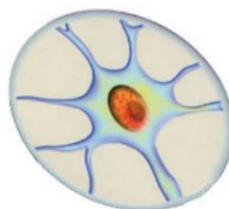
50. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)



Choose the correct answer: (2 marks for each right answer)

- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- Which of the following causes chemical weathering of rocks?
A) water B) acid C) wind D) All of them are correct
- An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base B) acid C) magnesium hydroxide D) salt
- The pH of calcium hydroxide solution is: -
A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine
- Which of the following drains a watershed?
A) a divide. B) a drainage basin. C) a tributary. D) a water system.
- The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar B) potassium hydroxide C) table salt D) none of them
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- In certain places ground water contains acids, such as:-
A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

28. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

29. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

30. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion B) weathering C) abrasion D) saltation

31. A..... is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

32. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

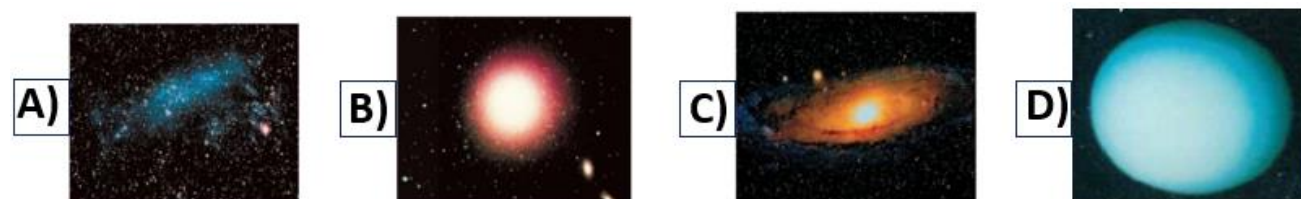
33. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

34. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

35. All of the following shapes are Galaxies **EXCEPT**:

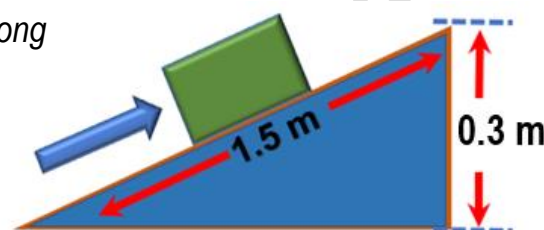


36. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

37. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



38. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

39. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

40. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

41. Which of the following relationships is the correct way to calculate kinetic energy?

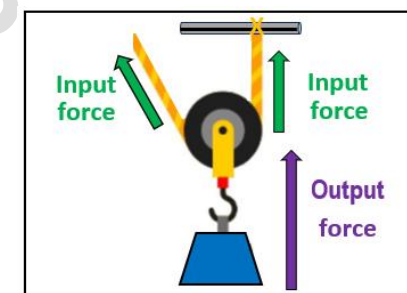
- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

42. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

43. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



44. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

45. Which of the following shapes is an example of a third -Class Lever?



46. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

47. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

48. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

49. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

50. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

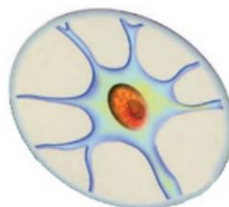
- A) 3.8 B) 8.3 C) 150 D) 900



Choose the correct answer: (2 marks for each right answer)

1. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
- B) joins organs
- C) sends electrical signals through the body
- D) covers and protects underlying tissues



2. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males
- B) only in females
- C) in males more often than in females
- D) in females more often than in males

3. Which of the following is made of living and dead cells?

- A) skin
- B) hair
- C) nail
- D) All of them are correct

4. To keep your teeth healthy:-

- A) brush your teeth as hard as you can
- B) floss your teeth at least once a week
- C) brush your teeth at least twice a day
- D) use a toothbrush until they worn out

5. Modern vaccines contain: -

- A) antibiotic
- B) pathogens that are specially treated so that they cannot make you very sick
- C) pathogens that are killed
- D) both (B and C) are correct

6. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc
- B) fluorine
- C) iodine
- D) potassium

7. What does physical dependence mean: -

- A) withdrawal from the drug
- B) the body needs more amounts of the drug
- C) feel powerful craving for the drug
- D) no need for the drug

8. In the male reproductive system, semen is made: -

- A) only of the sperm
- B) only of the fluids from male reproductive system glands
- C) the sperm and the fluids from male reproductive system glands
- D) of the sperm and urine

9. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
- B) a concentrated mixture of waste materials
- C) most water and a concentrated mixture of waste materials
- D) some nutrients and a concentrated mixture of waste materials

10. The digestive system breaks down protein into: -

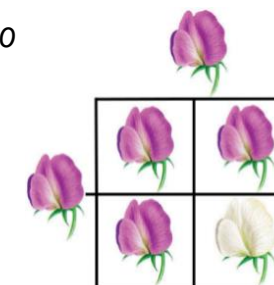
- A) individual amino acids
- B) small fat droplets
- C) monosaccharides
- D) vitamins

11. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas
- B) small intestine
- C) stomach
- D) large intestine

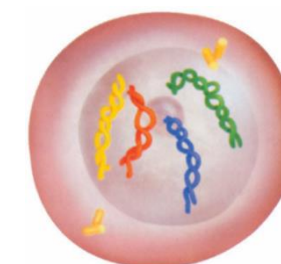
12. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
- B) $PP \times Pp$
- C) $Pp \times Pp$
- D) $pp \times pp$



13. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
- B) chromosomes reduce the thickness
- C) homologous chromatids line up along the equator of the cell
- D) chromosomes thicken



14. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence
- B) childhood and adulthood
- C) infancy and childhood
- D) adolescence and adulthood

15. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23
- B) 92
- C) 46
- D) 44

16. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach
- B) stomach to the pancreas
- C) liver to the pancreas
- D) stomach to the liver

17. The ovaries are the organs that:-

- A) release the estrogen and progesterone
- B) release testosterone
- C) make eggs
- D) both (A and C) are correct.

18. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated
- B) the plants cross-pollinated
- C) the plants self and cross pollinated
- D) the fertilization would not occur

19. Which of the following drains a watershed?

- A) a divide.
- B) a drainage basin.
- C) a tributary.
- D) a water system.

20. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid
- B) carbonic acid
- C) citric acid
- D) both (B and C) are correct

21. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion
- B) weathering
- C) abrasion
- D) saltation

22. A.....is an area made up of material deposited by waves.

- A) shoreline
- B) beach
- C) sea caves
- D) watershed

23. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar
- B) potassium hydroxide
- C) table salt
- D) none of them

24. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

25. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base
- B) acid
- C) magnesium hydroxide
- D) salt

26. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

27. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

28. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

29. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

30. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

31. The pH of calcium hydroxide solution is: -

- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

32. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

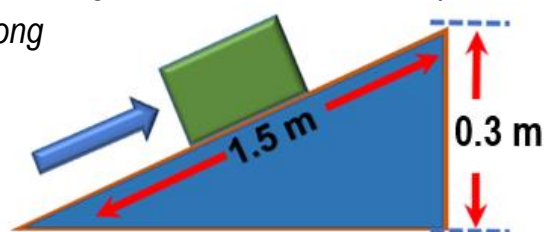
- A) contour plowing B) terracing C) no-till farming D) cover crop

33. A heavy box is pushed up a ramp that has an incline of 1.5 m long

and 0.3 m high. What is the mechanical advantage

of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



34. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

35. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

36. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

37. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

38. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

39. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

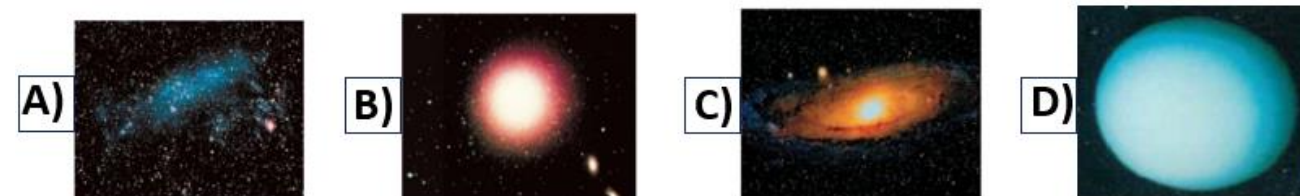
40. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

41. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

42. All of the following shapes are Galaxies **EXCEPT**:



43. A star begins as a ball of gas and dust pulled together by.....:

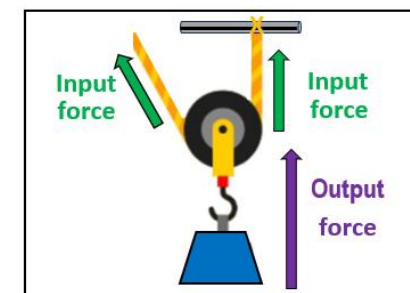
- A) gravity B) heavy metals C) electrons and protons D) black holes

44. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

45. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



46. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

47. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

48. Which of the following shapes is an example of a third -Class Lever?



49. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

50. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)



Choose the correct answer: (2 marks for each right answer)

1. The ovaries are the organs that:-

- A) release the estrogen and progesterone
B) release testosterone
C) make eggs
D) both (A and C) are correct.

2. After birth the two periods of most rapid growth are:-

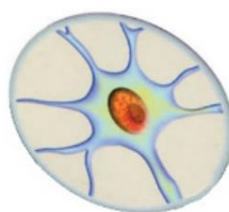
- A) childhood and adolescence
B) childhood and adulthood
C) infancy and childhood
D) adolescence and adulthood

3. To keep your teeth healthy:-

- A) brush your teeth as hard as you can
B) floss your teeth at least once a week
C) brush your teeth at least twice a day
D) use a toothbrush until they worn out

4. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues



5. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males
B) only in females
C) in males more often than in females
D) in females more often than in males

6. In the male reproductive system, semen is made:-

- A) only of the sperm
B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands
D) of the sperm and urine

7. Modern vaccines contain:-

- A) antibiotic
B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed
D) both (B and C) are correct

8. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated
B) the plants cross-pollinated
C) the plants self and cross pollinated
D) the fertilization would not occur

9. Which of the following is made of living and dead cells?

- A) skin
B) hair
C) nail
D) All of them are correct

10. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

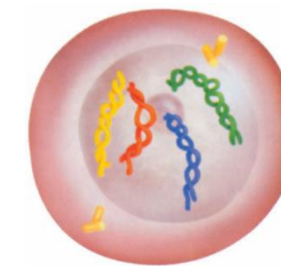
- A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

11. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc
B) fluorine
C) iodine
D) potassium

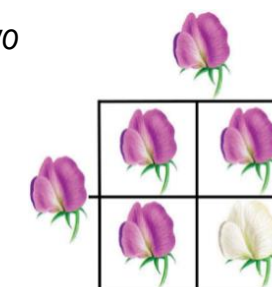
12. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



13. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



14. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas
B) small intestine
C) stomach
D) large intestine

15. The digestive system breaks down protein into:-

- A) individual amino acids
B) small fat droplets
C) monosaccharides
D) vitamins

16. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23
B) 92
C) 46
D) 44

17. What does physical dependence mean:-

- A) withdrawal from the drug
B) the body needs more amounts of the drug
C) feel powerful craving for the drug
D) no need for the drug

18. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach
B) stomach to the pancreas
C) liver to the pancreas
D) stomach to the liver

19. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

20. Which of the following causes erosion?

- A) rivers
B) wind and rain
C) ice and snow
D) all of them are correct

21. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains:-

- A) contour plowing
B) terracing
C) no-till farming
D) cover crop

22. Which of the following drains a watershed?

- A) a divide.
B) a drainage basin.
C) a tributary.
D) a water system.

23. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion
B) weathering
C) abrasion
D) saltation

24. Which of the following soil properties influences soil moisture?

- A) soil horizon
B) soil fertility
C) soil structure
D) soil pH

25. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base
B) acid
C) magnesium hydroxide
D) salt

26. A.....is an area made up of material deposited by waves.

- A) shoreline
B) beach
C) sea caves
D) watershed

27. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

28. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

29. The stages of river development are divided into:-

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

30. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

31. The pH of calcium hydroxide solution is:-

- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

32. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

33. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

34. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

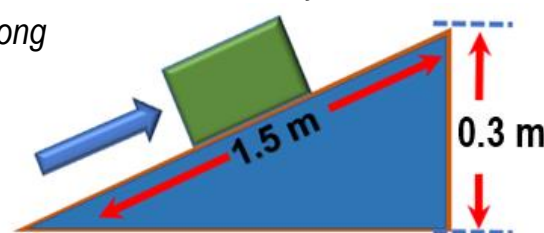
- A) 32 J B) 50 J C) 500 J D) 4800 J

35. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

36. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



37. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

38. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

39. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

40. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

41. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

42. A natural or artificial body that revolves around a planet:

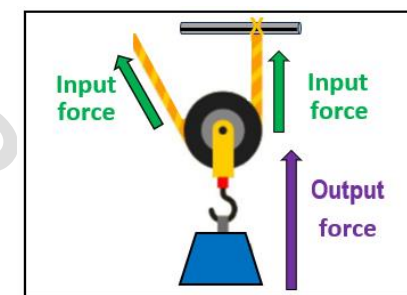
- A) Asteroids B) The sun C) Satellite D) Meteoroid

43. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

44. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



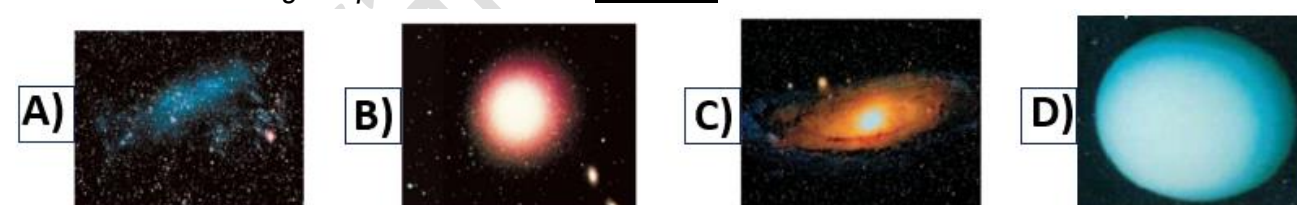
45. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

46. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

47. All of the following shapes are Galaxies **EXCEPT**:



48. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

49. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

50. Which of the following shapes is an example of a third -Class Lever?





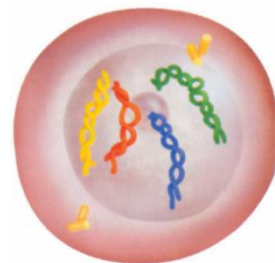
Choose the correct answer: (2 marks for each right answer)

1. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood

2. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



3. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc B) fluorine C) iodine D) potassium

4. The digestive system breaks down protein into: -

- A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins

5. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males B) only in females
C) in males more often than in females D) in females more often than in males

6. The ovaries are the organs that:-

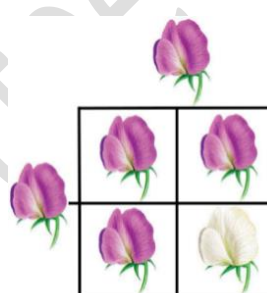
- A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.

7. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver

8. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



9. Which of the following is made of living and dead cells?

- A) skin B) hair C) nail D) All of them are correct

10. To keep your teeth healthy:-

- A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out

11. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur

12. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas B) small intestine C) stomach D) large intestine

13. Modern vaccines contain: -

- A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct

14. What does physical dependence mean: -

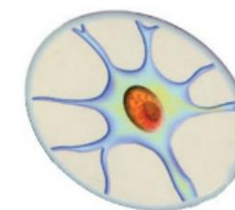
- A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug

15. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

16. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues



17. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23 B) 92 C) 46 D) 44

18. In the male reproductive system, semen is made: -

- A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine

19. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

20. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

21. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

22. The pH of calcium hydroxide solution is: -

- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

23. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

24. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

25. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

26. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

27. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

28. A.....is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

29. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

30. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

31. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

32. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

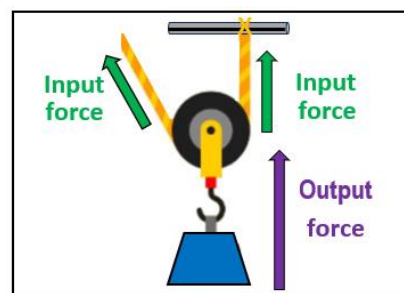
- A) base B) acid C) magnesium hydroxide D) salt

33. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

34. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



35. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

36. All of the following shapes are Galaxies EXCEPT:



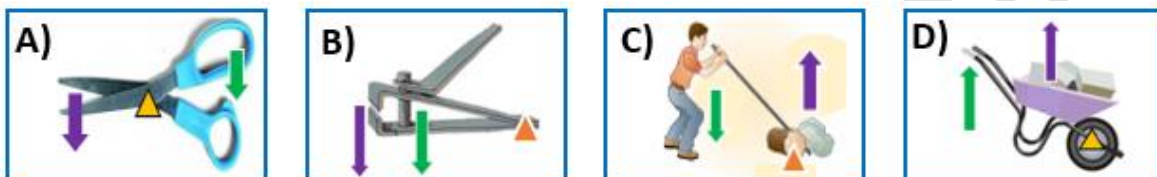
37. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

38. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

39. Which of the following shapes is an example of a third -Class Lever?



40. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

41. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

42. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

43. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

44. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

45. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

46. Which of the following statements is correct?

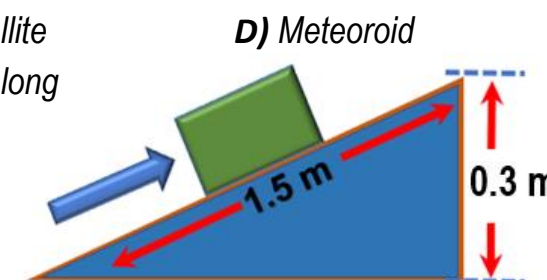
- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

47. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite

48. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



49. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

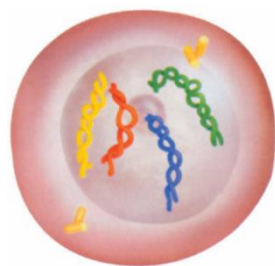
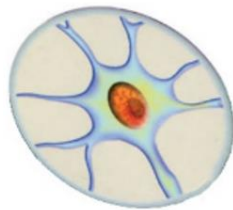
50. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct



Choose the correct answer: (2 marks for each right answer)

- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



13. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver

14. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back into blood vessels, that wrap around the nephrons.

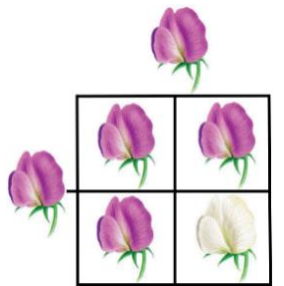
- A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

15. The ovaries are the organs that:-

- A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.

16. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



17. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas B) small intestine C) stomach D) large intestine

18. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23 B) 92 C) 46 D) 44

19. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

20. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

21. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

22. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

23. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

24. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

25. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base B) acid C) magnesium hydroxide D) salt

26. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

27. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

28. Which of the following causes chemical weathering of rocks?
A) water **B) acid** **C) wind** **D) All of them are correct**

29. The pH of calcium hydroxide solution is: -
A) equal to 7 **B) less than 7** **C) greater than 7** **D) cannot determine**

30. Is a chemical compound formed by the sharing of valence electrons:-
A) sugar **B) potassium hydroxide** **C) table salt** **D) none of them**

31. A.....is an area made up of material deposited by waves.
A) shoreline **B) beach** **C) sea caves** **D) watershed**

32. The stages of river development are divided into: -
A) 2 stages **B) 3 stages** **C) 4 stages** **D) 5 stages**

33. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

A) 3.8 **B) 8.3** **C) 150** **D) 900**

34. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

A) 32 J **B) 50 J** **C) 500 J** **D) 4800 J**

35. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy → Chemical energy
B)	Blender	Electrical energy → Kinetic energy and sound energy
C)	Electric lamp	Electrical energy → Mechanical energy
D)	heater	Electrical energy → Chemical energy

36. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.**
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

37. Which of the following is a unit for Gravitational Potential energy (PE)?

A) Newton (N) **B) Joule (J)** **C) Meter (m)**

38. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

A) 3 **B) 0.12**
C) 5 **D) 1.2**

39. In which of the following situations work is done?

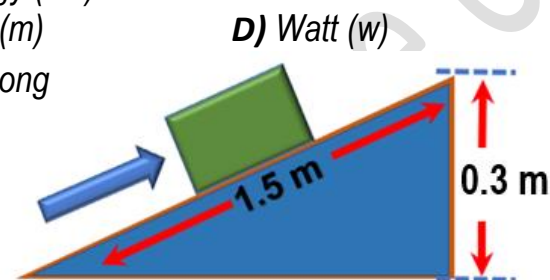
- A) A crane lifting a car.** **B) you push a wall.**
C) you push a car and it does not move. **D) both (B and C) are correct**

40. When energy changes from one form to another, some of the energy always changes into:

A) Kinetic energy **B) Potential energy** **C) Thermal energy** **D) Mechanical energy**

41. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

A) Mars and Jupiter **B) Earth and Mars** **C) Uranus and Neptune** **D) Mars and Venus**



42. All of the following shapes are Galaxies **EXCEPT**:

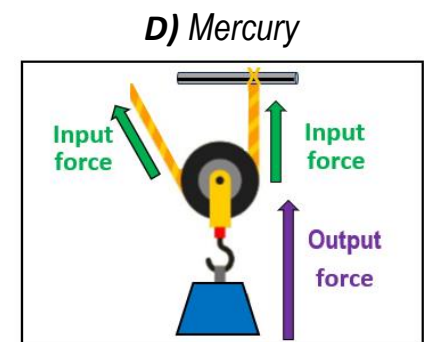


43. Which of the following planets is considered an outer solar system?

A) Venus **B) Earth** **C) Uranus**

44. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)**
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



45. Which of the following shapes is an example of a third -Class Lever?



46. A natural or artificial body that revolves around a planet:

A) Asteroids **B) The sun** **C) Satellite** **D) Meteoroid**

47. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

A) 5 **B) 0.5** **C) 0.2** **D) 2**

48. Which of the following relationships is the correct way to calculate kinetic energy?

A) $KE = mv$ **B) $KE = \frac{1}{2} mv$** **C) $KE = \frac{1}{2} mv^2$** **D) $KE = \frac{1}{2} m^2 v$**

49. A star begins as a ball of gas and dust pulled together by.....:

A) gravity **B) heavy metals** **C) electrons and protons** **D) black holes**

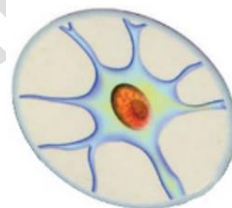
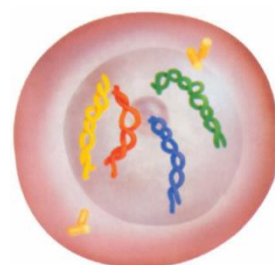
50. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

A) 10 Watt **B) 100 Watt** **C) 1440 Watt** **D) 14400 Watt**



Choose the correct answer: (2 marks for each right answer)

- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach **B)** stomach to the pancreas
C) liver to the pancreas **D)** stomach to the liver
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B)** release testosterone
C) make eggs **D)** both (A and C) are correct.
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B)** 92 **C)** 46 **D)** 44
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B)** small intestine **C)** stomach **D)** large intestine
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Which of the following is made of living and dead cells?
A) skin **B)** hair **C)** nail **D)** All of them are correct
- The digestive system breaks down protein into: -
A) individual amino acids **B)** small fat droplets **C)** monosaccharides **D)** vitamins
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In the male reproductive system, semen is made: -
A) only of the sperm **B)** only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands **D)** of the sperm and urine
- Modern vaccines contain: -
A) antibiotic **B)** pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed **D)** both (B and C) are correct
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B)** fluorine **C)** iodine **D)** potassium



13. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A)** only in males **B)** only in females
C) in males more often than in females **D)** in females more often than in males

14. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A)** the plants self-pollinated **B)** the plants cross-pollinated
C) the plants self and cross pollinated **D)** the fertilization would not occur

15. What does physical dependence mean: -

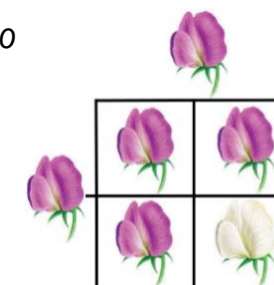
- A)** withdrawal from the drug **B)** the body needs more amounts of the drug
C) feel powerful craving for the drug **D)** no need for the drug

16. After birth the two periods of most rapid growth are:-

- A)** childhood and adolescence **B)** childhood and adulthood
C) infancy and childhood **D)** adolescence and adulthood

17. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A)** $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



18. To keep your teeth healthy:-

- A)** brush your teeth as hard as you can **B)** floss your teeth at least once a week
C) brush your teeth at least twice a day **D)** use a toothbrush until they worn out

19. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A)** base **B)** acid **C)** magnesium hydroxide **D)** salt

20. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A)** erosion **B)** weathering **C)** abrasion **D)** saltation

21. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A)** contour plowing **B)** terracing **C)** no-till farming **D)** cover crop

22. Which of the following causes erosion?

- A)** rivers **B)** wind and rain **C)** ice and snow **D)** all of them are correct

23. Is a chemical compound formed by the sharing of valence electrons:-

- A)** sugar **B)** potassium hydroxide **C)** table salt **D)** none of them

24. Which of the following drains a watershed?

- A)** a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.

25. The pH of calcium hydroxide solution is: -

- A)** equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine

26. The stages of river development are divided into: -

- A)** 2 stages **B)** 3 stages **C)** 4 stages **D)** 5 stages

27. In certain places ground water contains acids, such as:-

- A)** hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct

28. Which of the following soil properties influences soil moisture?

- A)** soil horizon **B)** soil fertility **C)** soil structure **D)** soil pH

29. An acid is used to etch glass:-

- A)** hydrochloric acid **B)** sulfuric acid **C)** hydrofluoric acid **D)** phosphoric acid.

30. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

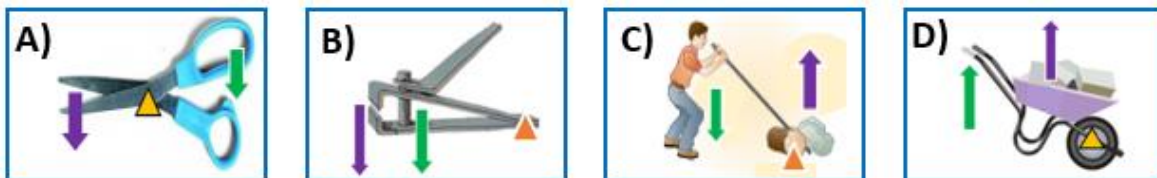
31. Which of the following causes chemical weathering of rocks?

- A) water
- B) acid
- C) wind
- D) All of them are correct

32. A..... is an area made up of material deposited by waves.

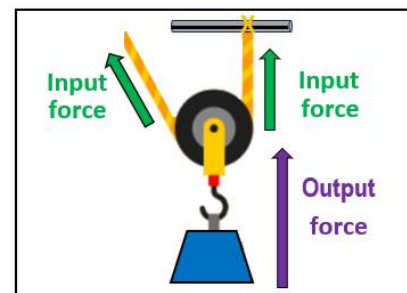
- A) shoreline
- B) beach
- C) sea caves
- D) watershed

33. Which of the following shapes is an example of a third -Class Lever?



34. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
- B) A movable pulley, and its mechanical advantage is (1)
- C) A fixed pulley, and its mechanical advantage is (2)
- D) A fixed pulley, and its mechanical advantage is (1)



35. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5
- B) 0.5
- C) 0.2
- D) 2

36. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt
- B) 100 Watt
- C) 1440 Watt
- D) 14400 Watt

37. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity
- B) heavy metals
- C) electrons and protons
- D) black holes

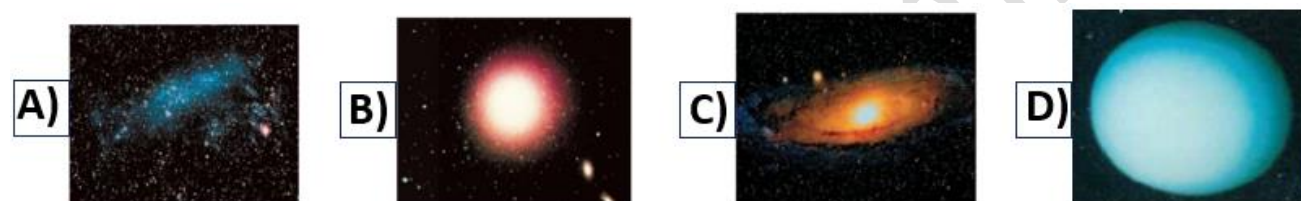
38. A natural or artificial body that revolves around a planet:

- A) Asteroids
- B) The sun
- C) Satellite
- D) Meteoroid

39. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

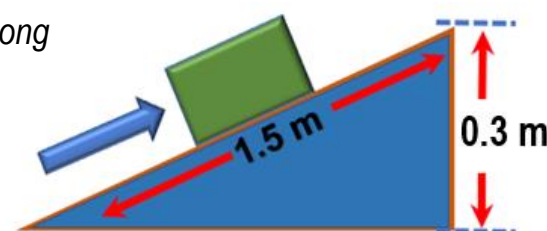
- A) Mars and Jupiter
- B) Earth and Mars
- C) Uranus and Neptune
- D) Mars and Venus

40. All of the following shapes are Galaxies EXCEPT:



41. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3
- B) 0.12
- C) 5
- D) 1.2



42. In which of the following situations work is done?

- A) A crane lifting a car.
- B) you push a wall.
- C) you push a car and it does not move.
- D) both (B and C) are correct

43. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

44. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy
- B) Potential energy
- C) Thermal energy
- D) Mechanical energy

45. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8
- B) 8.3
- C) 150
- D) 900

46. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N)
- B) Joule (J)
- C) Meter (m)
- D) Watt (w)

47. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
- B) The color of a star depends on its temperature.
- C) Astronomers classify stars according to temperature and brightness.
- D) All of them are correct

48. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J
- B) 50 J
- C) 500 J
- D) 4800 J

49. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$
- B) $KE = \frac{1}{2} mv$
- C) $KE = \frac{1}{2} mv^2$
- D) $KE = \frac{1}{2} m^2 v$

50. Which of the following planets is considered an outer solar system?

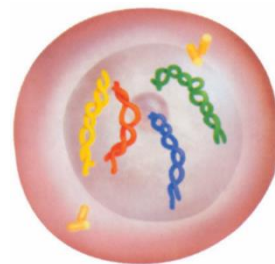
- A) Venus
- B) Earth
- C) Uranus
- D) Mercury



Choose the correct answer: (2 marks for each right answer)

1. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
- B) chromosomes reduce the thickness
- C) homologous chromatids line up along the equator of the cell
- D) chromosomes thicken



2. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc
- B) fluorine
- C) iodine
- D) potassium

3. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach
- B) stomach to the pancreas
- C) liver to the pancreas
- D) stomach to the liver

4. What does physical dependence mean: -

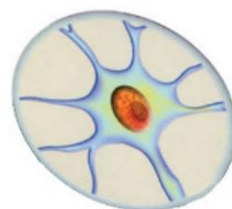
- A) withdrawal from the drug
- B) the body needs more amounts of the drug
- C) feel powerful craving for the drug
- D) no need for the drug

5. The digestive system breaks down protein into: -

- A) individual amino acids
- B) small fat droplets
- C) monosaccharides
- D) vitamins

6. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
- B) joins organs
- C) sends electrical signals through the body
- D) covers and protects underlying tissues



7. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas
- B) small intestine
- C) stomach
- D) large intestine

8. Modern vaccines contain: -

- A) antibiotic
- B) pathogens that are specially treated so that they cannot make you very sick
- C) pathogens that are killed
- D) both (B and C) are correct

9. In the male reproductive system, semen is made: -

- A) only of the sperm
- B) only of the fluids from male reproductive system glands
- C) the sperm and the fluids from male reproductive system glands
- D) of the sperm and urine

10. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males
- B) only in females
- C) in males more often than in females
- D) in females more often than in males

11. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
- B) a concentrated mixture of waste materials
- C) most water and a concentrated mixture of waste materials
- D) some nutrients and a concentrated mixture of waste materials

12. To keep your teeth healthy:-

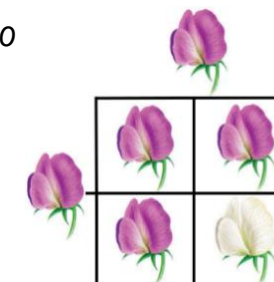
- A) brush your teeth as hard as you can
- B) floss your teeth at least once a week
- C) brush your teeth at least twice a day
- D) use a toothbrush until they worn out

13. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence
- B) childhood and adulthood
- C) infancy and childhood
- D) adolescence and adulthood

14. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
- B) $PP \times Pp$
- C) $Pp \times Pp$
- D) $pp \times pp$



15. Which of the following is made of living and dead cells?

- A) skin
- B) hair
- C) nail
- D) All of them are correct

16. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23
- B) 92
- C) 46
- D) 44

17. The ovaries are the organs that:-

- A) release the estrogen and progesterone
- B) release testosterone
- C) make eggs
- D) both (A and C) are correct.

18. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated
- B) the plants cross-pollinated
- C) the plants self and cross pollinated
- D) the fertilization would not occur

19. The stages of river development are divided into: -

- A) 2 stages
- B) 3 stages
- C) 4 stages
- D) 5 stages

20. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid
- B) carbonic acid
- C) citric acid
- D) both (B and C) are correct

21. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar
- B) potassium hydroxide
- C) table salt
- D) none of them

22. Which of the following causes chemical weathering of rocks?

- A) water
- B) acid
- C) wind
- D) All of them are correct

23. Which of the following soil properties influences soil moisture?

- A) soil horizon
- B) soil fertility
- C) soil structure
- D) soil pH

24. Which of the following drains a watershed?

- A) a divide.
- B) a drainage basin.
- C) a tributary.
- D) a water system.

25. An acid is used to etch glass:-

- A) hydrochloric acid
- B) sulfuric acid
- C) hydrofluoric acid
- D) phosphoric acid.

26. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
- B) reacts with metals to produce hydrogen gas
- C) turns blue litmus paper red
- D) both (B and C) are correct

27. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base
- B) acid
- C) magnesium hydroxide
- D) salt

28. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

29. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

30. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

31. The pH of calcium hydroxide solution is: -

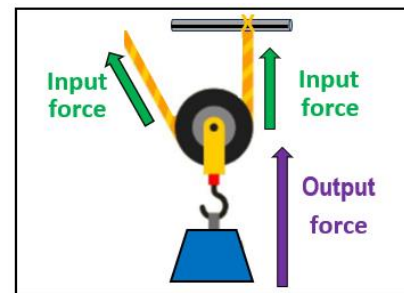
- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

32. A.....is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

33. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

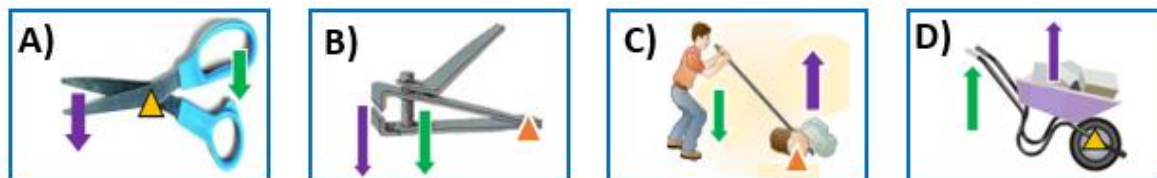
- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



34. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

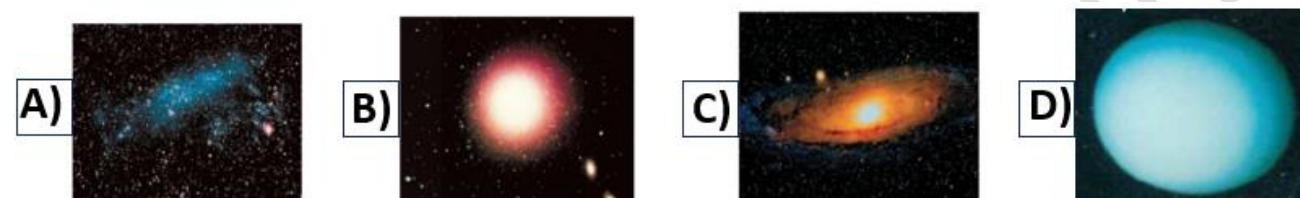
35. Which of the following shapes is an example of a third -Class Lever?



36. Which of the following statements is correct?

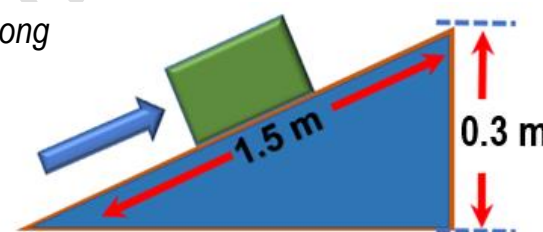
- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

37. All of the following shapes are Galaxies EXCEPT:



38. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



39. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

40. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

41. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

42. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

43. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

44. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

45. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

46. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

47. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

48. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

49. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

50. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)



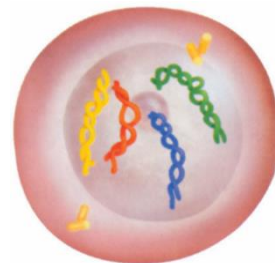
Choose the correct answer: (2 marks for each right answer)

1. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23 B) 92 C) 46 D) 44

2. The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



3. To keep your teeth healthy:-

- A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out

4. The ovaries are the organs that:-

- A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.

5. Modern vaccines contain: -

- A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct

6. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

7. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver

8. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood

9. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

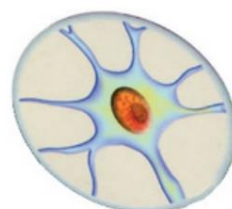
- A) zinc B) fluorine C) iodine D) potassium

10. What does physical dependence mean: -

- A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug

11. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues

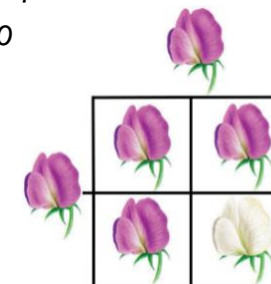


12. In the male reproductive system, semen is made: -

- A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine

13. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



14. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas B) small intestine C) stomach D) large intestine

15. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males B) only in females
C) in males more often than in females D) in females more often than in males

16. Which of the following is made of living and dead cells?

- A) skin B) hair C) nail D) All of them are correct

17. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur

18. The digestive system breaks down protein into: -

- A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins

19. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

20. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

21. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

22. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

23. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

24. The pH of calcium hydroxide solution is: -

- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

25. A base is a substance that:-

- A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

26. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

27. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base B) acid C) magnesium hydroxide D) salt

28. A is an area made up of material deposited by waves.

- A) shoreline B) beach C) sea caves D) watershed

29. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

30. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

31. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

32. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

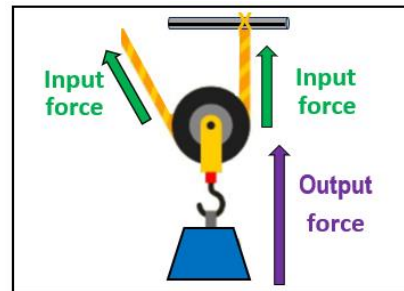
33. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

34. What type of pulley is shown in the adjacent figure,

and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



35. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

36. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

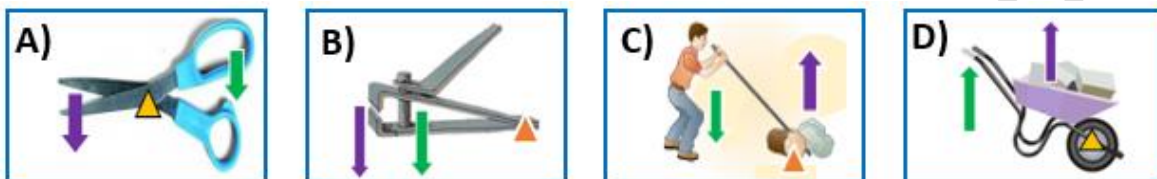
37. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

38. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

39. Which of the following shapes is an example of a third -Class Lever?



40. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

41. When energy changes from one form to another, some of the energy always changes into:

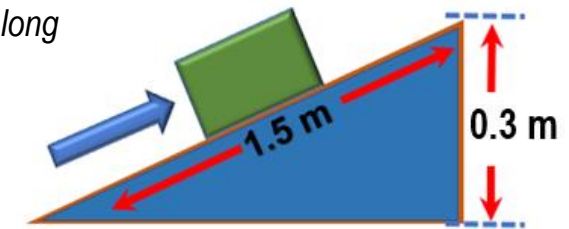
- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

42. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

43. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



44. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

45. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

46. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

47. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

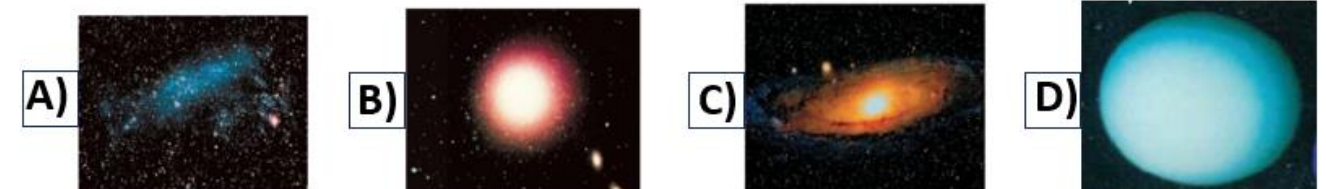
48. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

49. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

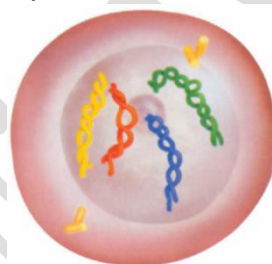
50. All of the following shapes are Galaxies EXCEPT:





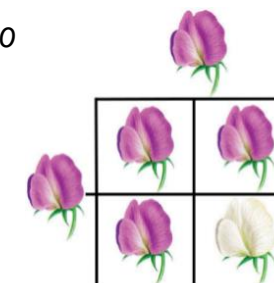
Choose the correct answer: (2 marks for each right answer)

- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium

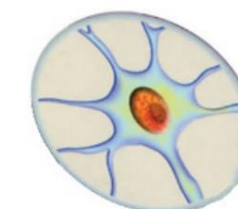


13. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



14. The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
15. In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
16. Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
17. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
18. The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
19. Which of the following drains a watershed?
A) a divide. B) a drainage basin. C) a tributary. D) a water system.
20. In certain places ground water contains acids, such as:-
A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct
21. A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
22. Which of the following causes erosion?
A) rivers B) wind and rain C) ice and snow D) all of them are correct
23. Is a chemical compound formed by the sharing of valence electrons:-
A) sugar B) potassium hydroxide C) table salt D) none of them
24. Which of the following soil properties influences soil moisture?
A) soil horizon B) soil fertility C) soil structure D) soil pH
25. A.....is an area made up of material deposited by waves.
A) shoreline B) beach C) sea caves D) watershed
26. The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages



27. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

28. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base B) acid C) magnesium hydroxide D) salt

29. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is:-

- A) erosion B) weathering C) abrasion D) saltation

30. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains:-

- A) contour plowing B) terracing C) no-till farming D) cover crop

31. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

32. The pH of calcium hydroxide solution is:-

- A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine

33. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

34. All of the following shapes are Galaxies EXCEPT:



35. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

36. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

37. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

38. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

39. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

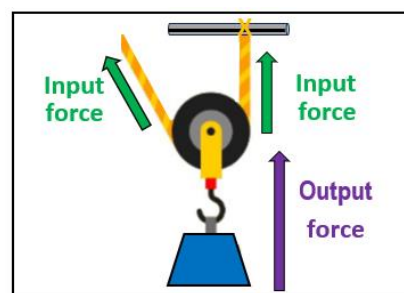
- A) 3.8 B) 8.3 C) 150 D) 900

40. In which of the following situations work is done?

- A) A crane lifting a car.
B) you push a wall.
C) you push a car and it does not move.
D) both (B and C) are correct

41. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



42. Which of the following shapes is an example of a third -Class Lever?



43. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

44. When energy changes from one form to another, some of the energy always changes into:

- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

45. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

46. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

47. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

48. Which of the following statements represents a correct energy transformation?

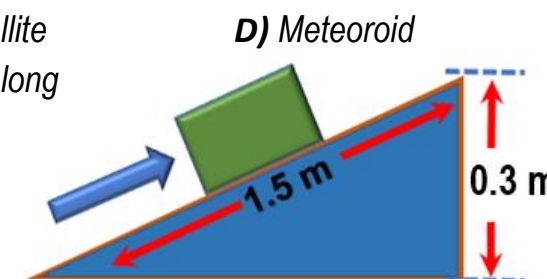
A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

49. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

50. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

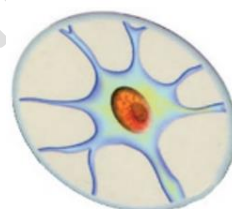
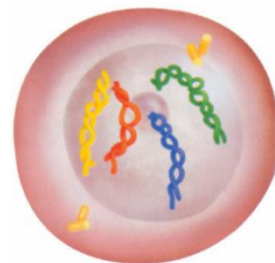
- A) 3 B) 0.12
C) 5 D) 1.2



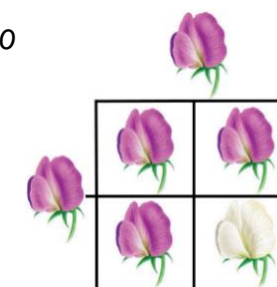


Choose the correct answer: (2 marks for each right answer)

- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood



- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages
- Which of the following causes chemical weathering of rocks?
A) water B) acid C) wind D) All of them are correct
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion B) weathering C) abrasion D) saltation
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- A.....is an area made up of material deposited by waves.
A) shoreline B) beach C) sea caves D) watershed
- Which of the following causes erosion?
A) rivers B) wind and rain C) ice and snow D) all of them are correct
- The pH of calcium hydroxide solution is: -
A) equal to 7 B) less than 7 C) greater than 7 D) cannot determine
- An acid is used to etch glass:-
A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.



28. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

29. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

30. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base B) acid C) magnesium hydroxide D) salt

31. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

32. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

33. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

34. A star begins as a ball of gas and dust pulled together by.....:

- A) gravity B) heavy metals C) electrons and protons D) black holes

35. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

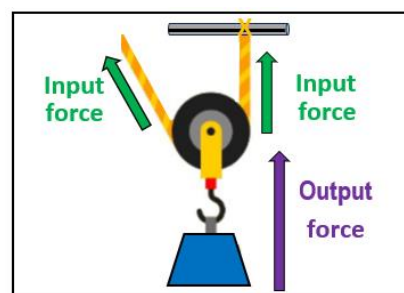
- A) 10 Watt B) 100 Watt C) 1440 Watt D) 14400 Watt

36. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A) 3.8 B) 8.3 C) 150 D) 900

37. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



38. Which of the following statements is correct?

- A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

39. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

40. When energy changes from one form to another, some of the energy always changes into:

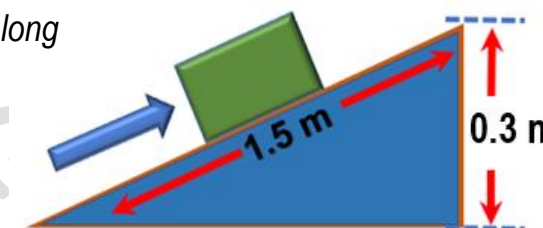
- A) Kinetic energy B) Potential energy C) Thermal energy D) Mechanical energy

41. In which of the following situations work is done?

- A) A crane lifting a car. B) you push a wall.
C) you push a car and it does not move. D) both (B and C) are correct

42. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A) 3 B) 0.12
C) 5 D) 1.2



43. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A) 5 B) 0.5 C) 0.2 D) 2

44. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A) 32 J B) 50 J C) 500 J D) 4800 J

45. Which of the following shapes is an example of a third -Class Lever?



46. A natural or artificial body that revolves around a planet:

- A) Asteroids B) The sun C) Satellite D) Meteoroid

47. Which of the following is a unit for Gravitational Potential energy (PE)?

- A) Newton (N) B) Joule (J) C) Meter (m) D) Watt (w)

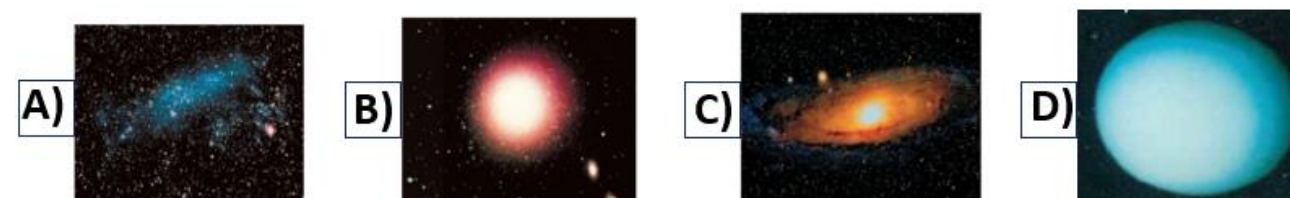
48. Which of the following planets is considered an outer solar system?

- A) Venus B) Earth C) Uranus D) Mercury

49. Which of the following relationships is the correct way to calculate kinetic energy?

- A) $KE = mv$ B) $KE = \frac{1}{2} mv$ C) $KE = \frac{1}{2} mv^2$ D) $KE = \frac{1}{2} m^2 v$

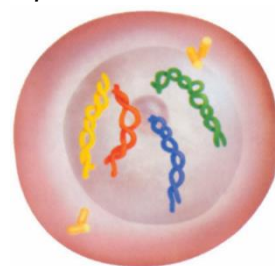
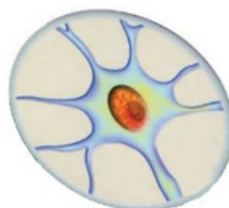
50. All of the following shapes are Galaxies **EXCEPT**:





Choose the correct answer: (2 marks for each right answer)

- The digestive system breaks down protein into: -
A) individual amino acids **B) small fat droplets** **C) monosaccharides** **D) vitamins**
- Which of the following is made of living and dead cells?
A) skin **B) hair** **C) nail** **D) All of them are correct**
- The ovaries are the organs that:-
A) release the estrogen and progesterone **B) release testosterone**
C) make eggs **D) both (A and C) are correct.**
- To keep your teeth healthy:-
A) brush your teeth as hard as you can **B) floss your teeth at least once a week**
C) brush your teeth at least twice a day **D) use a toothbrush until they worn out**
- Modern vaccines contain: -
A) antibiotic **B) pathogens that are specially treated so that they cannot make you very sick**
C) pathogens that are killed **D) both (B and C) are correct**
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated **B) the plants cross-pollinated**
C) the plants self and cross pollinated **D) the fertilization would not occur**
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas **B) small intestine** **C) stomach** **D) large intestine**
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 **B) 92** **C) 46** **D) 44**
- In the male reproductive system, semen is made: -
A) only of the sperm **B) only of the fluids from male reproductive system glands**
C) the sperm and the fluids from male reproductive system glands **D) of the sperm and urine**
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc **B) fluorine** **C) iodine** **D) potassium**
- What does physical dependence mean: -
A) withdrawal from the drug **B) the body needs more amounts of the drug**
C) feel powerful craving for the drug **D) no need for the drug**



14. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males** **B) only in females**
C) in males more often than in females **D) in females more often than in males**

15. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

- A) most of the water and some nutrients**
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials

16. After birth the two periods of most rapid growth are:-

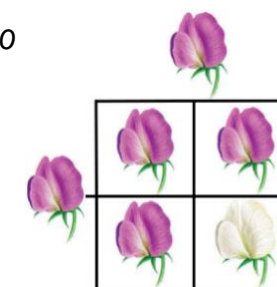
- A) childhood and adolescence** **B) childhood and adulthood**
C) infancy and childhood **D) adolescence and adulthood**

17. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach** **B) stomach to the pancreas**
C) liver to the pancreas **D) stomach to the liver**

18. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) PP × PP**
B) PP × Pp
C) Pp × Pp
D) pp × pp



19. The stages of river development are divided into: -

- A) 2 stages** **B) 3 stages** **C) 4 stages** **D) 5 stages**

20. A.....is an area made up of material deposited by waves.

- A) shoreline** **B) beach** **C) sea caves** **D) watershed**

21. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion** **B) weathering** **C) abrasion** **D) saltation**

22. An ionic compound that forms when a metal atom replace the hydrogen of an acid.

- A) base** **B) acid** **C) magnesium hydroxide** **D) salt**

23. Which of the following soil properties influences soil moisture?

- A) soil horizon** **B) soil fertility** **C) soil structure** **D) soil pH**

24. Which of the following drains a watershed?

- A) a divide.** **B) a drainage basin.** **C) a tributary.** **D) a water system.**

25. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid** **B) carbonic acid** **C) citric acid** **D) both (B and C) are correct**

26. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing** **B) terracing** **C) no-till farming** **D) cover crop**

27. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar** **B) potassium hydroxide** **C) table salt** **D) none of them**

28. An acid is used to etch glass:-

- A) hydrochloric acid** **B) sulfuric acid** **C) hydrofluoric acid** **D) phosphoric acid.**

29. The pH of calcium hydroxide solution is: -

- A) equal to 7** **B) less than 7** **C) greater than 7** **D) cannot determine**

30. Which of the following causes erosion?
A) rivers **B)** wind and rain **C)** ice and snow **D)** all of them are correct

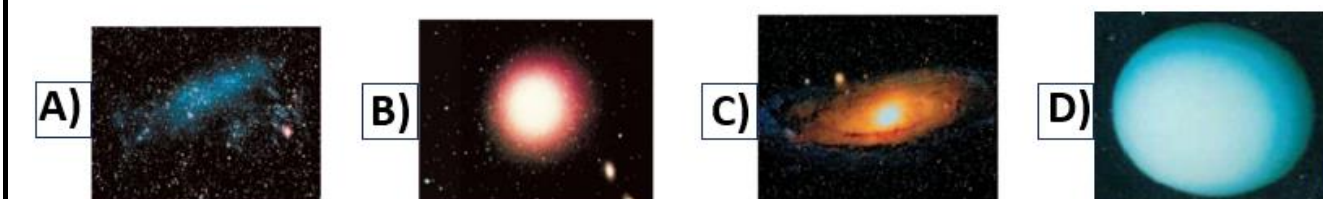
31. A base is a substance that:-

- A)** when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct

32. Which of the following causes chemical weathering of rocks?

- A)** water **B)** acid **C)** wind **D)** All of them are correct

33. All of the following shapes are Galaxies **EXCEPT**:



34. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A)** Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus

35. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A)** 5 **B)** 0.5 **C)** 0.2 **D)** 2

36. Which of the following planets is considered an outer solar system?

- A)** Venus **B)** Earth **C)** Uranus **D)** Mercury

37. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

38. Which of the following is a unit for Gravitational Potential energy (PE)?

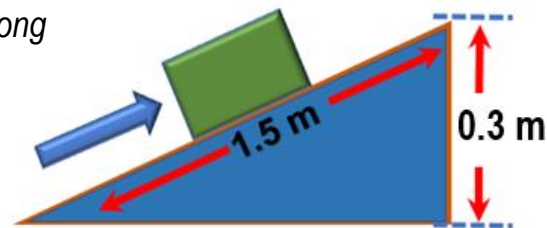
- A)** Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)

39. A star begins as a ball of gas and dust pulled together by.....

- A)** gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

40. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A)** 3 **B)** 0.12
C) 5 **D)** 1.2



41. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

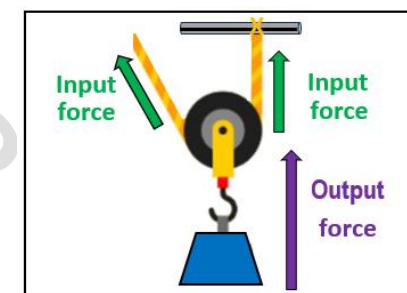
- A)** 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt

42. In which of the following situations work is done?

- A)** A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct

43. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



44. When energy changes from one form to another, some of the energy always changes into:

- A)** Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

45. Which of the following statements is correct?

- A)** Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

46. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A)** 3.8 **B)** 8.3 **C)** 150 **D)** 900

47. A natural or artificial body that revolves around a planet:

- A)** Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid

48. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A)** 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

49. Which of the following shapes is an example of a third -Class Lever?



50. Which of the following relationships is the correct way to calculate kinetic energy?

- A)** $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$



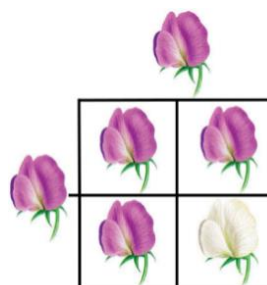
Choose the correct answer: (2 marks for each right answer)

1. The ovaries are the organs that:-

- A) release the estrogen and progesterone B) release testosterone
 C) make eggs D) both (A and C) are correct.

2. The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?

- A) $PP \times PP$
 B) $PP \times Pp$
 C) $Pp \times Pp$
 D) $pp \times pp$



3. The inside wall of the..... is covered with fingerlike projections called villi.

- A) pancreas B) small intestine C) stomach D) large intestine

4. Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.

- A) the plants self-pollinated B) the plants cross-pollinated
 C) the plants self and cross pollinated D) the fertilization would not occur

5. The digestive system breaks down protein into: -

- A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins

6. What does physical dependence mean: -

- A) withdrawal from the drug B) the body needs more amounts of the drug
 C) feel powerful craving for the drug D) no need for the drug

7. To keep your teeth healthy:-

- A) brush your teeth as hard as you can B) floss your teeth at least once a week
 C) brush your teeth at least twice a day D) use a toothbrush until they worn out

8. Modern vaccines contain: -

- A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
 C) pathogens that are killed D) both (B and C) are correct

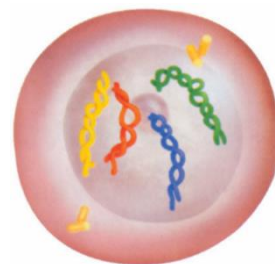
9. In humans the fertilized egg (zygote) contains.....chromosomes.

- A) 23 B) 92 C) 46 D) 44

10. The adjacent figure shows a stage(step) of mitosis,

which of the following happens(occurs) in this stage

- A) homologous chromosomes line up along the equator of the cell
 B) chromosomes reduce the thickness
 C) homologous chromatids line up along the equator of the cell
 D) chromosomes thicken



11. Esophagus a long straight tube that connects the:-

- A) pharynx to the stomach B) stomach to the pancreas
 C) liver to the pancreas D) stomach to the liver

12. Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-

- A) only in males B) only in females
 C) in males more often than in females D) in females more often than in males

13. Which of the following does the body need to regulate the heartbeat and produce muscle movement?

- A) zinc B) fluorine C) iodine D) potassium

14. In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.

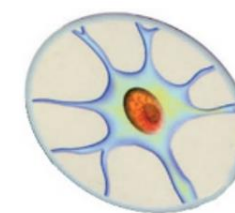
- A) most of the water and some nutrients
 B) a concentrated mixture of waste materials
 C) most water and a concentrated mixture of waste materials
 D) some nutrients and a concentrated mixture of waste materials

15. Which of the following is made of living and dead cells?

- A) skin B) hair C) nail D) All of them are correct

16. The function of the tissue shown in the adjacent figure:-

- A) is made of cells that contract and relax to produce movement
 B) joins organs
 C) sends electrical signals through the body
 D) covers and protects underlying tissues



17. After birth the two periods of most rapid growth are:-

- A) childhood and adolescence B) childhood and adulthood
 C) infancy and childhood D) adolescence and adulthood

18. In the male reproductive system, semen is made: -

- A) only of the sperm B) only of the fluids from male reproductive system glands
 C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine

19. The stages of river development are divided into: -

- A) 2 stages B) 3 stages C) 4 stages D) 5 stages

20. Which of the following causes erosion?

- A) rivers B) wind and rain C) ice and snow D) all of them are correct

21. Which of the following drains a watershed?

- A) a divide. B) a drainage basin. C) a tributary. D) a water system.

22. In certain places ground water contains acids, such as:-

- A) hydrofluoric acid B) carbonic acid C) citric acid D) both (B and C) are correct

23. Is a chemical compound formed by the sharing of valence electrons:-

- A) sugar B) potassium hydroxide C) table salt D) none of them

24. Which of the following causes chemical weathering of rocks?

- A) water B) acid C) wind D) All of them are correct

25. Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -

- A) contour plowing B) terracing C) no-till farming D) cover crop

26. Which of the following soil properties influences soil moisture?

- A) soil horizon B) soil fertility C) soil structure D) soil pH

27. The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -

- A) erosion B) weathering C) abrasion D) saltation

28. An acid is used to etch glass:-

- A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.

A) base **B) acid** **C) magnesium hydroxide** **D) salt**

A) when dissolved in water its solution conducts electric current

C) turns blue litmus paper red

D) both (B and C) are correct

A) shoreline **B) beach** **C) sea caves** **D) watershed**

A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine

A) 5 **B) 0.5** **C) 0.2** **D) 2**

A) $KE = mv$ **B) $KE = \frac{1}{2} mv$** **C) $KE = \frac{1}{2} mv^2$** **D) $KE = \frac{1}{2} m^2 v$**

A) gravity **B) heavy metals** **C) electrons and protons** **D) black holes**

A) Newton (N) **B) Joule (J)** **C) Meter (m)** **D) Watt (w)**

A) Blue stars have a higher temperature than red stars.

B) *The color of a star depends on its temperature.*

c) Astronomers classify stars according to temperature and brightness.

D) All of them are correct

A) Venus **B) Earth** **C) Uranus** **D) Mercury**

A)	Alarm	Electrical energy $\longrightarrow$ Chemical energy
B)	Blender	Electrical energy $\longrightarrow$ Kinetic energy and sound energy
C)	Electric lamp	Electrical energy $\longrightarrow$ Mechanical energy
D)	heater	Electrical energy $\longrightarrow$ Chemical energy

A) 10 Watt **B) 100 Watt** **C) 1440 Watt** **D) 14400 Watt**

A) A movable pulley, and its mechanical advantage is (2)

B) A movable pulley, and its mechanical advantage is (1)

C) A fixed pulley, and its mechanical advantage is (2)

D) A fixed pulley, and its mechanical advantage is (1)

A) 3.8 **B)** 8.3 **C)** 150 **D)** 900

A) Kinetic energy **B) Potential energy** **C) Thermal energy** **D) Mechanical energy**

A) Asteroids **B) The sun** **C) Satellite** **D) Meteoroid**

A) Mars and Jupiter B) Earth and Mars C) Uranus and Neptune D) Mars and Venus

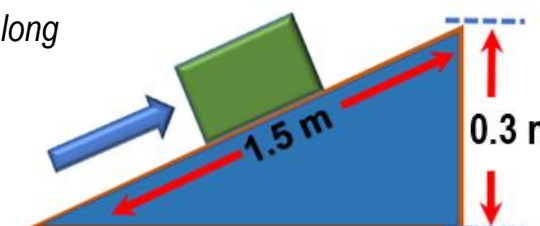
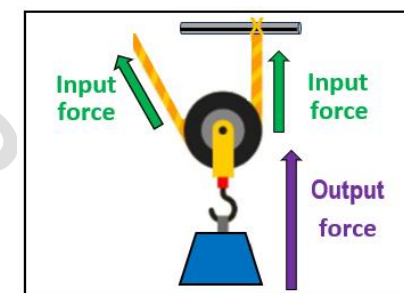
A) 3 **B) 0.12**

C) 5

A) 32 J **B) 50 J** **C) 500 J** **D) 4800 J**

A) A crane lifting a car. **B)** you push a wall.

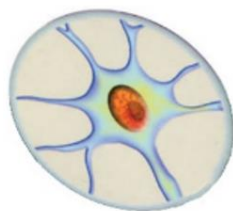
C) you push a car and it does not move. **D)** both (B and C) are correct



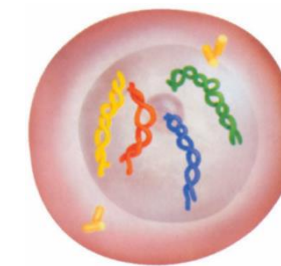


Choose the correct answer: (2 marks for each right answer)

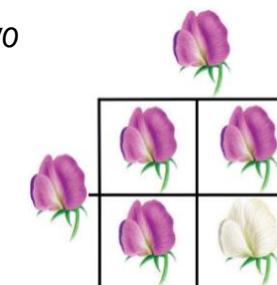
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out



- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken



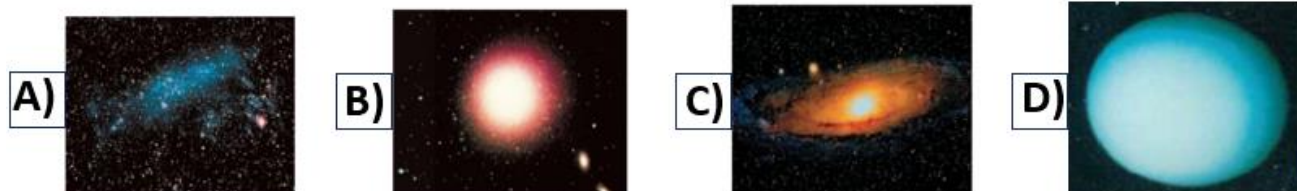
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$



- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- Which of the following causes erosion?
A) rivers B) wind and rain C) ice and snow D) all of them are correct
- A.....is an area made up of material deposited by waves.
A) shoreline B) beach C) sea caves D) watershed
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- An acid is used to etch glass:-
A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.
- Which of the following causes chemical weathering of rocks?
A) water B) acid C) wind D) All of them are correct
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion B) weathering C) abrasion D) saltation

26. The stages of river development are divided into: -
A) 2 stages **B)** 3 stages **C)** 4 stages **D)** 5 stages
27. Is a chemical compound formed by the sharing of valence electrons:-
A) sugar **B)** potassium hydroxide **C)** table salt **D)** none of them
28. An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt
29. In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct
30. The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine
31. Which of the following drains a watershed?
A) a divide. **B)** a drainage basin. **C)** a tributary. **D)** a water system.
32. Which of the following soil properties influences soil moisture?
A) soil horizon **B)** soil fertility **C)** soil structure **D)** soil pH
33. Which of the following statements is correct?
A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

34. All of the following shapes are Galaxies **EXCEPT**:

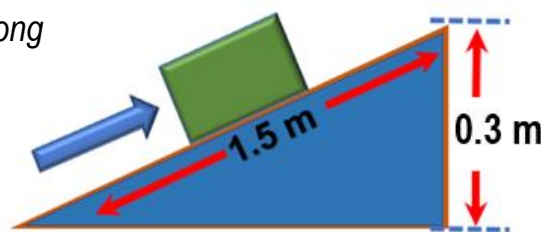


35. In which of the following situations work is done?
A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct

36. A natural or artificial body that revolves around a planet:
A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid

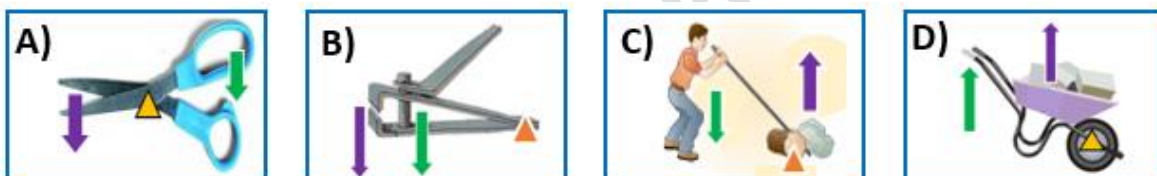
37. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

- A)** 3 **B)** 0.12
C) 5 **D)** 1.2



38. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)

39. Which of the following shapes is an example of a third -Class Lever?



40. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

41. A star begins as a ball of gas and dust pulled together by.....:
A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

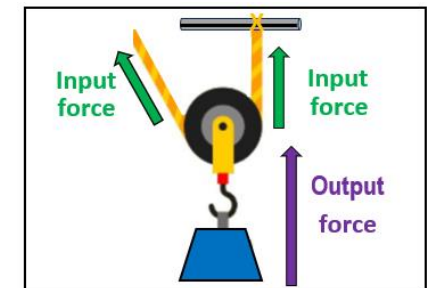
42. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

- A)** 5 **B)** 0.5 **C)** 0.2 **D)** 2

43. Which of the following planets is considered an outer solar system?

- A)** Venus **B)** Earth **C)** Uranus

D) Mercury



44. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

- A)** A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)

45. Which of the following relationships is the correct way to calculate kinetic energy?

- A)** $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$

46. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

- A)** 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt

47. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy

48. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

- A)** Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus

49. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

- A)** 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

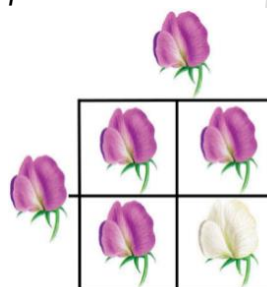
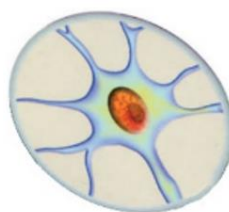
50. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

- A)** 3.8 **B)** 8.3 **C)** 150 **D)** 900

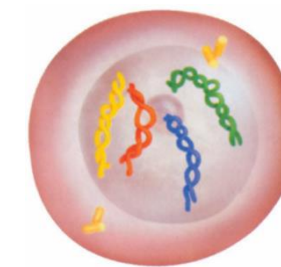


Choose the correct answer: (2 marks for each right answer)

- Mendel in his experiments with the pea plant, to be sure.....he removed the anthers of one plant.
A) the plants self-pollinated B) the plants cross-pollinated
C) the plants self and cross pollinated D) the fertilization would not occur
- Which of the following does the body need to regulate the heartbeat and produce muscle movement?
A) zinc B) fluorine C) iodine D) potassium
- Color blindness and hemophilia are examples of sex-linked disorders, these disorders occur:-
A) only in males B) only in females
C) in males more often than in females D) in females more often than in males
- The function of the tissue shown in the adjacent figure:-
A) is made of cells that contract and relax to produce movement
B) joins organs
C) sends electrical signals through the body
D) covers and protects underlying tissues
- In the male reproductive system, semen is made: -
A) only of the sperm B) only of the fluids from male reproductive system glands
C) the sperm and the fluids from male reproductive system glands D) of the sperm and urine
- The adjacent Punnett square shows the possible results of the cross between two pea plants, which of the following represents the genotypes of the parents?
A) $PP \times PP$
B) $PP \times Pp$
C) $Pp \times Pp$
D) $pp \times pp$
- In the process of blood filtration by the kidneys, when water, glucose, salts, amino acids, and urea flow through the nephrons, ... is (are) moved back. into blood vessels, that wrap around the nephrons.
A) most of the water and some nutrients
B) a concentrated mixture of waste materials
C) most water and a concentrated mixture of waste materials
D) some nutrients and a concentrated mixture of waste materials
- What does physical dependence mean: -
A) withdrawal from the drug B) the body needs more amounts of the drug
C) feel powerful craving for the drug D) no need for the drug
- After birth the two periods of most rapid growth are:-
A) childhood and adolescence B) childhood and adulthood
C) infancy and childhood D) adolescence and adulthood
- The ovaries are the organs that:-
A) release the estrogen and progesterone B) release testosterone
C) make eggs D) both (A and C) are correct.
- In humans the fertilized egg (zygote) contains.....chromosomes.
A) 23 B) 92 C) 46 D) 44



- The digestive system breaks down protein into: -
A) individual amino acids B) small fat droplets C) monosaccharides D) vitamins
- The inside wall of the..... is covered with fingerlike projections called villi.
A) pancreas B) small intestine C) stomach D) large intestine
- Which of the following is made of living and dead cells?
A) skin B) hair C) nail D) All of them are correct
- To keep your teeth healthy:-
A) brush your teeth as hard as you can B) floss your teeth at least once a week
C) brush your teeth at least twice a day D) use a toothbrush until they worn out
- Esophagus a long straight tube that connects the:-
A) pharynx to the stomach B) stomach to the pancreas
C) liver to the pancreas D) stomach to the liver
- The adjacent figure shows a stage(step) of mitosis, which of the following happens(occurs) in this stage
A) homologous chromosomes line up along the equator of the cell
B) chromosomes reduce the thickness
C) homologous chromatids line up along the equator of the cell
D) chromosomes thicken
- Modern vaccines contain: -
A) antibiotic B) pathogens that are specially treated so that they cannot make you very sick
C) pathogens that are killed D) both (B and C) are correct
- A.....is an area made up of material deposited by waves.
A) shoreline B) beach C) sea caves D) watershed
- Which of the following causes erosion?
A) rivers B) wind and rain C) ice and snow D) all of them are correct
- An acid is used to etch glass:-
A) hydrochloric acid B) sulfuric acid C) hydrofluoric acid D) phosphoric acid.
- The stages of river development are divided into: -
A) 2 stages B) 3 stages C) 4 stages D) 5 stages
- Which of the following soil properties influences soil moisture?
A) soil horizon B) soil fertility C) soil structure D) soil pH
- Is a technique from the soil conservation techniques help that prevent erosion from heavy rains: -
A) contour plowing B) terracing C) no-till farming D) cover crop
- A base is a substance that:-
A) when dissolved in water its solution conducts electric current
B) reacts with metals to produce hydrogen gas
C) turns blue litmus paper red
D) both (B and C) are correct
- The process by which rock materials are broken down by the action of physical and chemical processes without transportation is: -
A) erosion B) weathering C) abrasion D) saltation
- Is a chemical compound formed by the sharing of valence electrons:-
A) sugar B) potassium hydroxide C) table salt D) none of them
- Which of the following drains a watershed?
A) a divide. B) a drainage basin. C) a tributary. D) a water system.



29. The pH of calcium hydroxide solution is: -
A) equal to 7 **B)** less than 7 **C)** greater than 7 **D)** cannot determine

30. An ionic compound that forms when a metal atom replace the hydrogen of an acid.
A) base **B)** acid **C)** magnesium hydroxide **D)** salt

31. In certain places ground water contains acids, such as:-
A) hydrofluoric acid **B)** carbonic acid **C)** citric acid **D)** both (B and C) are correct

32. Which of the following causes chemical weathering of rocks?
A) water **B)** acid **C)** wind **D)** All of them are correct

33. Which of the following is a unit for Gravitational Potential energy (PE)?
A) Newton (N) **B)** Joule (J) **C)** Meter (m) **D)** Watt (w)

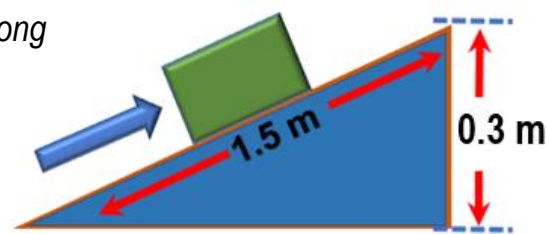
34. When energy changes from one form to another, some of the energy always changes into:
A) Kinetic energy **B)** Potential energy **C)** Thermal energy **D)** Mechanical energy

35. One astronomical unit (AU) is the average distance between the earth and sun; approximately.....million kilometers.

A) 3.8 **B)** 8.3 **C)** 150 **D)** 900

36. A heavy box is pushed up a ramp that has an incline of 1.5 m long and 0.3 m high. What is the mechanical advantage of the ramp shown in the figure?

A) 3 **B)** 0.12
C) 5 **D)** 1.2



37. In which of the following situations work is done?

A) A crane lifting a car. **B)** you push a wall.
C) you push a car and it does not move. **D)** both (B and C) are correct

38. Which of the following relationships is the correct way to calculate kinetic energy?

A) $KE = mv$ **B)** $KE = \frac{1}{2} mv$ **C)** $KE = \frac{1}{2} mv^2$ **D)** $KE = \frac{1}{2} m^2 v$

39. A natural or artificial body that revolves around a planet:

A) Asteroids **B)** The sun **C)** Satellite **D)** Meteoroid

40. Which of the following statements is correct?

A) Blue stars have a higher temperature than red stars.
B) The color of a star depends on its temperature.
C) Astronomers classify stars according to temperature and brightness.
D) All of them are correct

41. What is the gravitational potential energy of a cat that weighs (40 N) standing on a table that is 0.8 m above the ground?

A) 32 J **B)** 50 J **C)** 500 J **D)** 4800 J

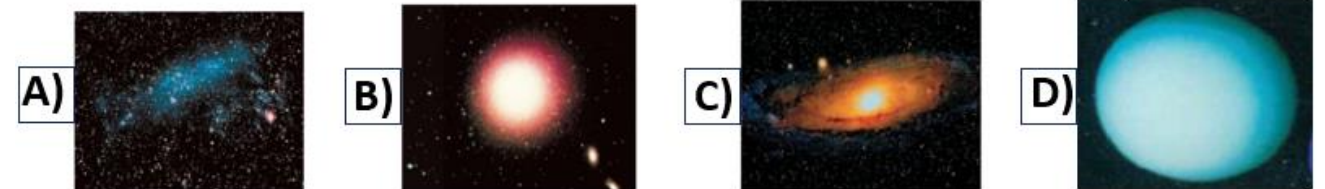
42. Suppose that you exert 60 N on a machine and the machine exerts 300 N on another object. What is the machine's mechanical advantages (MA)?

A) 5 **B)** 0.5 **C)** 0.2 **D)** 2

43. A light bulb is on for 12 s and during that time it uses 1200 J of electrical energy. What is the power of the light bulb?

A) 10 Watt **B)** 100 Watt **C)** 1440 Watt **D)** 14400 Watt

44. All of the following shapes are Galaxies **EXCEPT**:



45. A star begins as a ball of gas and dust pulled together by.....:

A) gravity **B)** heavy metals **C)** electrons and protons **D)** black holes

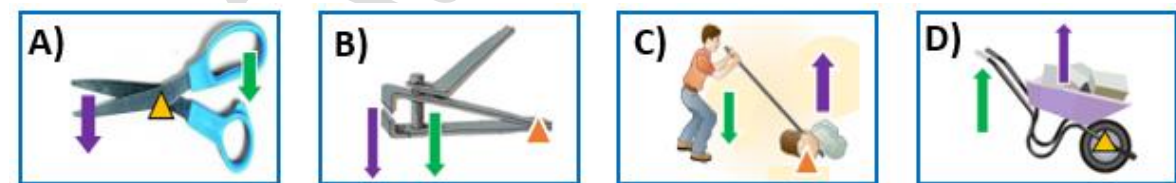
46. The asteroid (Hektor, Ceres, and Vesta) is a wide region between the orbits of.....

A) Mars and Jupiter **B)** Earth and Mars **C)** Uranus and Neptune **D)** Mars and Venus

47. Which of the following planets is considered an outer solar system?

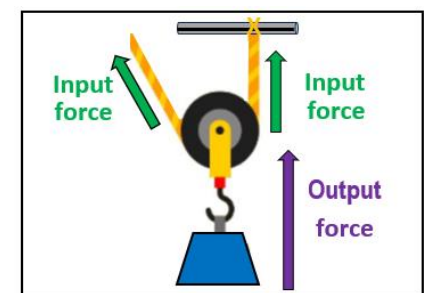
A) Venus **B)** Earth **C)** Uranus **D)** Mercury

48. Which of the following shapes is an example of a third -Class Lever?



49. What type of pulley is shown in the adjacent figure, and what is its mechanical advantage?

A) A movable pulley, and its mechanical advantage is (2)
B) A movable pulley, and its mechanical advantage is (1)
C) A fixed pulley, and its mechanical advantage is (2)
D) A fixed pulley, and its mechanical advantage is (1)



50. Which of the following statements represents a correct energy transformation?

A)	Alarm	Electrical energy	→	Chemical energy
B)	Blender	Electrical energy	→	Kinetic energy and sound energy
C)	Electric lamp	Electrical energy	→	Mechanical energy
D)	heater	Electrical energy	→	Chemical energy