Q1. Larger the slope of a displacement-time graph: **1 Mark**

A Lesser the velocity **B** Higher the velocity **C** Lesser the acceleration **D** Higher the acceleration

Q2. When a stone falls freely towards the earth, its total energy ? **1 Mark**

A First decreases and then becomes zero **B** Remains constant
C Increases **D** Decreases

Q3. The gravitational force of attraction between two objects is x. Keeping the masses of the objects unchanged, if the distance between the objects is halved, then the magnitude of gravitational force between them will become: **1 Mark**

A $\frac{x}{4}$ **B** $\frac{x}{2}$ **C** $2x$ **D** $4x$

Q4. While mixing sugar with water, the level of water does not increase because _____? **1 Mark**

A Matter has large particles which destroy water particles **B** Tiny particles of sugar adjust among the space between tiny particles of water
C Tiny particles of sugar destroy large particles of water **D** None of the above

Q5. If crop rotation is done properly then: **1 Mark**

A Two or three crops can be grown in a year with good harvests. **B** Three or four crops can be grown in a year with good harvests.
C Four or five crops can be grown in a year with good harvest. **D** None of these.

Q6. A body is said to be under balanced forces when the resultant force acting on the body is: **1 Mark**

A Unity **B** Zero **C** Infinite **D** None of these

Q7. In hydrogen peroxide (H_2O_2), the proportion of hydrogen and oxygen by mass is: **1 Mark**

A 1 : 8 **B** 1 : 16 **C** 8 : 1 **D** 16 : 1

Q8. Why do clothes dry faster on a windy day: **1 Mark**

A Evaporation increases with increase in wind speed. **B** Evaporation increases with increase in humidity.
C Evaporation decreases with increase in wind speed. **D** None of these

Q9. When we say 'sound travels in a medium' we mean: **1 Mark**

A The particles of the medium travel **B** The source travels
C The disturbance travels **D** None of the above

Q10. Elements having valency 'one' are: **1 Mark**

A Always metals. **B** Always non-metals.
C Always metalloids. **D** Either metals or non-metals.

Q11. When a piece of cork is put into the water it starts floating on the surface of water due to the upward buoyant force from water. **1 Mark**

If the cork is pushed more inside the water by applying the force than the buoyant force:

A Will increase as the cork is immersed into the water. **B** Will decrease as the cork is immersed into the water.
C Will first increase and then decrease as the cork is immersed more into the water. **D** Will remain the same as long as the cork is inside the water.

Q12. What happens when a solid melts: **1 Mark**

A Its molecules move faster **B** Its molecules move closer together
C The movement of its molecules decreases **D** The temperature decreases although heat is added

Q13. When a solid block is fully immersed in water, the volume of the water displaced is: **1 Mark**

A Greater than the volume ofthe block
B Less than the volume of the block
C Equal to the volume of the block
D Depends upon the manner in which the block is immersed in the liquid

Q14. Which of the following statements is/ are correct: **1 Mark**

A Inter particle spaces are maximum in the gaseous state of a substance
B Particles which constitute gas follow a zig-zag path
C Solid state is the most compact state of substance.
D All are correct

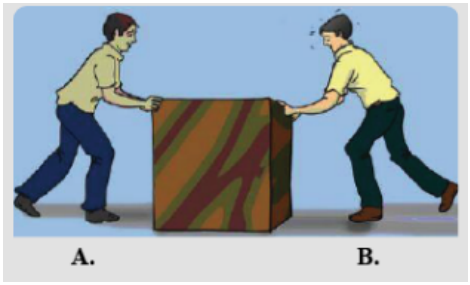
Q15. The force of buoyancy is equal to: **1 Mark**

A Weight of the body
B Weight of the liquid displaced by the body
C Apparent weight of the body
D None of these

Q16. Intestine absorb the digested food materials. What type of epithelial cells are responsible for that? **1 Mark**

A Stratified squamous epithelium.
B Columnar epithelium.
C Spindle fibres.
D Cuboidal epithelium.

Q17. In above figure, two boys A and B are shown applying force on a block. If the block moves towards the right, which one of the following statements is correct? **1 Mark**



A Magnitude of force applied by A is greater than that of B.
B Magnitude of force applied by A is smaller than that of B.
C Net force on the block is towards A.
D Magnitude of force applied by A is equal to that of B.

Q18. Perforated card boards are used in halls, for: **1 Mark**

A Reflection of sound
B Absorption of sound
C Refraction of sound
D As a decorative material

Q19. A body rolling down a hill has: **1 Mark**

A K.E. only **B** P.E. only **C** Neither K.E. nor P.E. **D** Both K.E. and P.E

Q20. Before playing the orchestra in a musical concert, a sitarist tries to adjust the tension and pluck the strings suitably. By doing so he is adjusting: **1 Mark**

A Intensity of sound only.
B Amplitude of sound only.
C Frequency of the sitar string with the frequency of other musical instruments.
D Loudness of sound.

Q21. When salt is dissolved in water _____? **1 Mark**

A The particles of water get into the spaces between particles of salt
B The particles of salt get into the spaces between particles of water
C The particles of salt sit on the top of particles of water
D The particles of water sit on the top of particles of salt

Q22. Why does a mug full of water feel lighter inside water: **1 Mark**

A Because of Buoyant force
B Because of Gravitational force
C Because of an increase in velocity
D Because of its kinetic energy

Q23. The depth of ocean at any place can be measured (estimated) with the help of: **1 Mark**

A X rays **B** Ultrasonic waves **C** Radio waves **D** Ultraviolet rays

Q24. Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions: **1 Mark**

A Low temperature, low pressure.
B High temperature, low pressure.
C Low temperature, high pressure.
D High temperature, high pressure.

Q25. The property of ultrasonic waves used in manufacturing emulsion for photographic films is its _____: **1 Mark**

A High speed **B** High frequency **C** Higher wavelength **D** High amplitude

Q26. The school bags are generally provided with the broad strips because: **1 Mark**

A It will spread the force of the bag over the large area of the shoulder of the child producing large pressure.
B It will spread the force of the bag over the large area of the shoulder of the child producing less pressure.

C It has become a trend among the students to carry the bags with wide strips.

D It will spread the force of the bag over the small area of the shoulder of the child producing less pressure.

Q27. What happens when prong of a tuning fork is stretched outward from its normal position? **1 Mark**

A It compresses surrounding air molecules

B It expands surrounding air molecules

C It reflects surrounding air molecules

D It deflects surrounding air molecules

Q28. Why do we wear cotton clothes in summer: **1 Mark**

A Cotton absorbs water **B** It leads to sweating **C** Both a and b **D** None of above

Q29. Which of the following vehicles is undergoing a deceleration? **1 Mark**

A A car driving straight to the east on a road at a constant speed

B A truck rounding a corner at a constant speed

C A van slowing down as it approaches a stop sign

D None of these

Q30. Which of the following parameters determines the loudness of sound? **1 Mark**

A Frequency **B** Amplitude **C** Wavelength **D** Speed

Q31. Animal husbandry is the scientific management of: **1 Mark**

1. Animal breeding.
2. Culture of animals.
3. Animal livestock.
4. Rearing of animals.

A (i), (ii) and (iii)

B (ii), (iii) and (iv)

C (i), (ii) and (iv)

D (i), (iii) and (iv)

Q32. Choose the correct statement(s): **1 Mark**

A Motion necessarily takes place along the direction of force

B If no force acts, the body is at rest

C A body in motion, need not be acted upon by a force

D A change in speed is always there, whenever a force is applied on the moving body

Q33. When we increase the loudness of sound of a TV, the property of sound that changes is: **1 Mark**

A Amplitude **B** Frequency **C** Wavelength **D** Speed

Q34. A water tank filled upto $\frac{2}{3}$ of its height is moving with a uniform speed. On sudden application of the brake, the water in the tank would: **1 Mark**

A Move backward **B** Move forward **C** Come to the rest **D** Be unaffected

Q35. In which state of matter, process of diffusion is fastest? **1 Mark**

A Liquids **B** Gases **C** Solids **D** Semi - solids

Q36. A quiet sound is produced by a loudspeaker. The loudness of the sound is increased. Which property of the sound wave is increased? **1 Mark**

A Amplitude **B** Frequency **C** Speed **D** Wavelength

Q37. The smell of hot sizzling food reaches you several meters away, but to get the smell of the cold food you have to go close.Which property of matter does this activity show: **1 Mark**

A Particles of matter have space

B Energy of particles of matter increases with increase in temperature

C Particles of matter attract each other

D None of the above

Q38. Heat of fusion is the process of conversion of: **1 Mark**

A Liquid into gas **B** Solid into gas **C** Solid into liquid **D** Liquid into solid

Q39. Apparent loss of weight of a body when immersed in a liquid can be explained on the basis of: **1 Mark**

A Molecular theory **B** Electron theory **C** Archimedes' principle. **D** Bernoulli's principle.

Q40. What is the effect of pressure on gas: **1 Mark**

A Volume of gas decreases with increase in pressure

B Volume of gas increases with increase in pressure

C Both a and b

D Pressure has no effect on gas

Q41. In a compound, the ratio of the atoms or element by mass remains always the same irrespective of: **1 Mark**

A Temperature **B** Nature of compound **C** Source of compound **D** Size of compound

Q42. Which type of tissue forms glands? **1 Mark**

A Connective **B** Epithelial **C** Nervous **D** Muscle

Q43. Which of the following is an example of zero work even when the body suffers a displacement from its initial position? **1 Mark**

A A coolie carrying a load on his head and moving forward on a horizontal road

B A fielder catching a ball

C A child pushes a wall

D A child pulling a toy car

Q44. The splash is heard 2.05s after the stone is dropped into a well of depth 19.6m.The velocity of sound is? **1 Mark**

A $342ms^{-1}$ **B** $372ms^{-1}$ **C** $392ms^{-1}$ **D** $352ms^{-1}$

Q45. Which of the following statements given below is correct about meristematic tissue? **1 Mark**

A Is made of cells that are incapable of cell division.

B Is made of cells that are capable of cell division.

C Is composed of single type of cells.

D Is composed of more than one type of cell.

Q46. Which of the following statements about Rutherford's model of an atom are correct? **1 Mark**

A It considered the nucleus is positively charged.

B It established that the α -particles are four times as heavy as a hydrogen atom.

C It can be compared to the solar system.

D It was in agreement with Thomson's model.

Q47. Which of the following situations is possible? **1 Mark**

A An object can have acceleration, but constant velocity.

B The velocity of an object may be zero but acceleration is not zero.

C Distance and the magnitude of displacement are equal in circular motion.

D Average speed and the magnitude of average velocity are always equal in circular motion.

Q48. A cell placed in hypotonic solution bursts up. It is: **1 Mark**

A Animal cell. **B** Bacterial cell. **C** Fungal cell. **D** Plant cell.

Q49. A long tree has several branches. The tissue that helps in the side ways conduction of water in the branches is: **1 Mark**

A Collenchyma. **B** Xylem parenchyma. **C** Parenchma. **D** Xylem vessels.

Q50. Which of the following characteristic can be obtained when quality breeding is done? **1 Mark**

A Higher yields of crop in a shorter period of time

B Cropping without irrigation

C Increased lifespan of crops by 10 years

D Carrying out photosynthesis at night

Q51. Which of the following is/are true as per Thomson's model of atom: **1 Mark**

A An atom is not electrically neutral.

B An atom is a positively charged sphere with electrons embedded in it.

C Negative and positive charges in the atom are equal in magnitude.

D None of the above

Q52. On what factor does speed of wave depends: **1 Mark**

A Properties of medium **B** Properties of object **C** Frequency of the sound **D** None

Q53. The ratio of force and acceleration is: **1 Mark**

A Mass **B** Impulse **C** Momentum **D** None of these

Q54...... is said to be done only when the force applied on a body makes the body to move: **1 Mark**

A Work **B** Momentum **C** Retardation **D** None of these

Q55. Intestine absorbs the digested food materials. What type of epithelial cells are responsible for that? **1 Mark**

A Stratified squamous epithelium

B Columnar epithelium

C Spindle fibres

D Cuboidal epithelium

Q56. Buoyant force is directed: **1 Mark**

A Upwards **B** Downwards **C** Sideways **D** At ll directions

Q57. Slope of a velocity – time graph gives: **1 Mark**

A The distance. **B** The displacement. **C** The acceleration. **D** The speed.

Q58. Tendons and ligaments are: **1 Mark**

A Dense connective tissue.

B Loose connective tissue.

C Muscular tissue.

D Vascular tissue.

Q59. Osmosis is the diffusion of: **1 Mark**

A Solute **B** Free energy **C** Water **D** Solute and solvent

Q60...... plays a crucial role in detoxifying many poisons and drugs in a cell. **1 Mark**

A Golgi apparatus

B Lysosome

C Smooth endoplasmic reticulum

D Vacuole