CLASS - IX (CBSE)

MCQ EXAMINATION : 2025-26

Candidate's Name in CAPITAL letters | Sec.

Branch

Roll No. : | Candidate's Signature | Invigilator's Signature

Date :

INSTRUCTIONS FOR OMR SHEET:-

1. **Attempt ALL the questions.**
2. **Use only black or blue (ball pen) for darkening / writing in appropriate oval / box.**
3. **While darkening the oval / box it is to be ensured that these are darkened completely.**
4. **OMR sheet shall not be folded or tampered in any way.**
5. **Over writing / erasing / dual data & use of correction fluid will render OMR sheet invalid.**

M.M. : 100

Time : 2 Hrs.

SCIENCE
[BIOLOGY]

1. What is the primary function of the cell membrane?
   (a) To control the movement of materials in out of the cell
   (b) To provided structural support to the cell
   (c) To synthesize proteins
   (d) To store genetic information
2. Which organelle is responsible for photosynthesis in plant cells?
   (a) Mitochondria
   (b) Chloroplast
   (c) Nucleus
   (d) Endoplasmic reticulum
3. What is the function of nucleus in a cell?
   (a) To synthesize proteins
   (b) To store genetic information
   (c) To provided structural support to the cell
   (d) To regulate cell growth
4. Which orgenelle is responsible for generating energy for the cell?
   (a) Mitochondria
   (b) Chloroplast
   (c) Lysosome
   (d) Golgi apparatus
5. What is the function of lysosomes in a cell?
   (a) To synthesize proteins
   (b) To store genetic information
   (c) To digest and recycle cellular waste
   (d) To regulate cell growth
6. Which organelle is involved in protein synthesis?
   (a) Ribosome
   (b) Endoplasmic reticulum
   (c) Golgi apparatus
   (d) All of the above

Space for rough work

What is the main difference between prokaryotic and eukaryotic cells?
(a) Presence of a nucleus
(b) Presence of mitochondria
(c) Presence of chloroplasts
(d) Presence of a cell wall

8. Which type of cell has a true nucleus?
(a) Prokaryotic cell
(b) Eukaryotic cell
(c) Plant cell
(d) Animal cell

9. What is the function of the cell wall in plant cells?
(a) To provide structural support
(b) To regulate cell growth
(c) To synthesize proteins
(d) To store genetic information

10. Which organelle is responsible for packaging and modifying proteins?
(a) Endoplasmic reticulum
(b) Golgi apparatus
(c) Lysosome
(d) Mitochondria

11. What is the function of cytoplasm in a cell?
(a) To store genetic information
(b) To synthesize proteins
(c) To provide a medium for organell to function
(d) To regulate cell growth

12. Which type of cell division results in four daughter cells?
(a) Mitosis
(b) Meiosis
(c) Binary fission
(d) Endoreduplication

13. What is the function of centrioles in animal cells?
(a) To synthesize proteins
(b) To store genetic information
(c) To form cilia and flagella
(d) To regulate cell division

14. Which organelle is involved in lipid synthesis?
(a) Endoplasmic reticulum
(b) Golgi apparatus
(c) Mitochondria
(d) Lysosome

15. What is the primary function of the cytoskeleton?
(a) To provide structural support
(b) To regulate cell growth
(c) To synthesize proteins
(d) To store genetic information

16. Which type of cell has a large central vacuole?
(a) Animal cell
(b) Plant cell
(c) Prokaryotic cell
(d) Eukaryotic cell

17. What is the function of plastids in plant cells?
(a) To synthesize proteins
(b) To store genetic information
(c) To photosynthesize and store pigments
(d) To regulate cell growth

18. Which organelle is responsible for detoxification in cells?
(a) Mitochondria
(b) Endoplasmic reticulum
(c) Lysosome
(d) Peroxisome

19. What is the function of ribosomes in cells?
(a) To synthesize proteins
(b) To store genetic information
(c) To regulate cell growth
(d) To provide structural support

20. Which type of cell division results in two daughter cells?
(a) Mitosis
(b) Meiosis
(c) Binary fission
(d) Multiple Fission

21. Which plant tissue provides mechanical strength and rigidity?
(a) Parenchyma
(b) Collenchyma
(c) Sclerenchyma
(d) Xylem

22. What is the primary function of meristematic tissue in plants?
a) Storage of nutrients
b) Transportation of food
(c) Growth by cell division
(d) Providing rigidity

23. Which tissue is responsible for transporting water and minerals in plants?
(a) Xylem
(b) Phloem
(c) Epidermis
(d) Cortex

24. What type of muscle tissue is found in the heart?
(a) Striated muscle
(b) Smooth muscle
(c) Cardiac muscle
(d) Skeletal muscle

25. Which tissue connects muscles to bones in humans?
(a) Ligament
(b) Tendon
(c) Cartilage
(d) Areolar tissue

26. What is the primary function of nervous tissue?
(a) Contraction and relaxation for movement
(b) Transmission of nerve impulses
(c) Binding and supporting other tissues
(d) Covering body surfaces and cavities

27. Wnat is tne characteristic feature of sclerenchyma tissue?
(a) Living cells with highly thickened walls
(b) Living cells with thin walls
(c) Dead cells with thin walls
(d) Dead cells with thickened walls

28. Which type of epithelial tissue forms the inner lining of our mo
(a) Squamous epithelium
(b) Cuboidal epithelium
(c) Columnar epithelium
(d) Ciliated epithelium

29. What is the function of adipose tissues?
(a) Storage of proteins
(b) Storage of fats
(c) Storage of carbohydrates
(d) Storage of minerals

30. Which tissue is responsible for the movement of our body?
(a) Epithelial tissue
(b) Connective tissue
(c) Muscular tissue
(d) Nervous tissue

31. What is the primary function of connective tissue?
(a) Binding and supporting other tissues
(b) Covering body surfaces and cavities
(c) Transmission of nerve impulses
(d) Contraction and relaxation for movement

32. Which type of muscle fibers are involuntary and unstriated?
(a) Cardiac muscles
(b) Skeletal muscles
(c) Smooth muscles
(d) Striated muscles

33. What is the role of cartilage in our body?
(a) It provides mechanical strength
(b) It smoothens bone surfaces at joints
(c) It stores fats
d) It transmits nerve impulses

34. Which cells are responsible for transmitting nerve impulses ?
(a) Neurons
(b) Myocytes
(c) Fibroblasts
(d) Chondrocytes

35. What is the primary function of phloem tissue in plants?
(a) Transportation of water and minerals
(b) Transportation of food
(c) Storage of nutrients
(d) Providing structural support

36. Which type of tissue is found between skin and muscles?
(a) Areolar tissue
(b) Adipose tissue
(c) Cartilage
(d) Bone

37. What is the function of tendons?
(a) Connecting bones to bones
(b) Connecting muscles to bones
(c) Storing fats
(d) Transmitting nerve impulses

38. Which type of epithelial tissue is formed when epithelial tissue folds inward?
(a) Squamous epithelium
(b) Cuboidal epithelium
(c) Columnar epithelium
(d) Glandular epithelium

39. What is the rcle of ligaments?
(a) Connecting muscles to bones
(b) Connecting bones to bones
(c) Storing fats
(d) Transmitting nerve impulses

40. What is the primary function of blood?
(a) Transportation of oxygen
(b) Transportation of nutrients
(c) Transportation of hormones.
(d) All of the Above.

41. Intermixing of particles of two different types of matter on their own is called as :
(a) Diffusion
(b) Mixing
(c) Precipitation
(d) Sublimation

42. Gases can be liquified by :
(a) Applying pressure
(b) Reducing temperature
(c) Both (a) and (b)
(d) None of the above

43. Rate of evaporation increases with :
(a) Increase in surface area
(b) Increase in temperature
(c) Decrease in humidity
(d) All of the above

44. Which one of the following is not a postulate of Dalton's atomic theory :
(a) Matter is made up of very tiny particles.
(b) Atoms are indivisible particles.
(c) Atoms of different elements have different masses and chemical properties.
(d) In a chemical substance the elements are always present in a definite proportion by mass.

45. Which of the following sets of phenomenon would increase on raising the temperature?
(a) Diffusion, _____ evaporation, compression of gases
(b) Evaporation, compression of gases, solubility.
(c) Evaporation, Diffusion, expansion of gases
(d) None of the above

46. Scattering of a beam of light is called as :
(a) Brownian movement
(b) Tyndall effect
(c) Diffusion
(d) None of the above

47. Which of the following is not an example of 'Aerosol'?
(a) Mist
(b) Fog
(c) Clouds
(d) Mud

48. Which of the following statement is not true about metals.
(a) They have lustre
(b) They can conduct heat and electricity
(c) Most of the metals are ductile
(d) They can not conduct heat and electricity

49. Which of the statement is not true about compound :
(a) Elements react to form new compound.
(b) The new substance has totally different properties from its constituents.
(c) The constituents can be separated only by chemical means.
(d) The constituents can be separated easily by physical methods.

50. Which of the followig is not a chemical change :
(a) Ripening of fruit
(b) Rusting of Almirah
(c) Curdling of milk
(d) Cutting wood log into smaller pieces.

51. Select the wrong statement given about suspension :
(a) Suspension is a heterogenous mixture.
(b) Suspension is a homogenous mixture
(c) The particles of suspension can be seen by naked eyes.
(d) The particles of a suspension scatter a beam of light passing through it and make its path visible.

52. Dalton's symbol of phosphorus is :
(a)
(b)
(c)
(d)

53. Which of the following element is not diatomic.
(a) Phosphorus
(b) Chlorine
(c) Bromine
(d) Nitrogen

54. The negatively charged ion is called as :
(a) Cation
(b) Anion
(c) Polyion
(d) None of the above

55. Na_2SO_3 is chemical formula of :
(a) Sodium sulphide
(b) Sodium sulphite
(c) Sodium sulphate
(d) Sodium hydrogen sulphate

56. Choose the correct value of x in phosphate ion PO_4^{-x}
(a) 4 (b) 2
(c) 3 (d) 1

57. Choose the correct formula of ammonium nitrate:
(a) $NH_4(NO_3)_2$
(b) $(NH_4)_2NO_3$
(c) $(NH_4)_3NO_3$
(d) NH_4NO_3

58. Molecular mass of CH_4 is : [C=12, H=1]
(a) 18 u (b) 16 u
(c) 24 u (d) 10 u

59. Choose the formula of calcium bicarbonate
(a) $(Ca(HCO_3)_2$
(b) $CaHCO_3$
(c) $CaCO_3$
(d) None

60. Choose the correct ratio by mass of Ca and O in calcium oxide:
[Ca = 40, O =16]
(a) 5 : 2
(b) 3 : 4
(c) 23 : 32
(d) none of the above

61. Which of the following equation is not in agreement with law of conservation of mass. [At masses H = 1, C= 12, O = 16, N = 14]
(a) $C + O_2 \rightarrow CO_2$
(b) $2H_2 + O_2 \rightarrow 2H_2O$
(c) $N_2 + 3H_2 \rightarrow 2NH_3$
(d) $C + O_2 \rightarrow CO$

62. Which of the following is not a homogenous mixture :
a) Sugar in water
b) Sulphur in carbondisulphide
(c) Water in aicohol
(d) Sugar and salt

63. Which of the following is an example of element :
(a) Water
(b) Methane
(c) Iron
(d) Iron sulphide

64. A colourless gas having smell of rotten egg is :
(a) HCl (b) H_2S
(c) SO_2 (d) CO_2

65. ..... are the elements that show the properties of both metals and nonmetals.
(a) metalloids
(b) metal
(c) non-metal
(d) Inert gases

66. Choose the element which is a liquid metal:
(a) Sodium,
(b) Potassium
(c) Mercury
(d) Copper

67. Which of the following is not a physical change:
(a) Melting of wax
(b) Freezing of water
(c) Burning of coal
(d) Breaking of a glass

68. Areated drinks like soda water etc. are ..... in..... solution.
(a) Gas in liquid
(b) Liquid in gas
(c) Solid in liquid
(d) None of the above

69. The amount of heat energy required to change 1 kg of solid into liquid at its melting point is called as :
(a) latent heat of vapourisation
(b) Latent heat of fusion
(c) Both of the above
(d) None of the above

70. Our palm feel cold when we put some acetone or petrol or perfume on it due to ..... process.
(a) Evaporation
(b) Diffusion
(c) Boiling
(d) Condensation

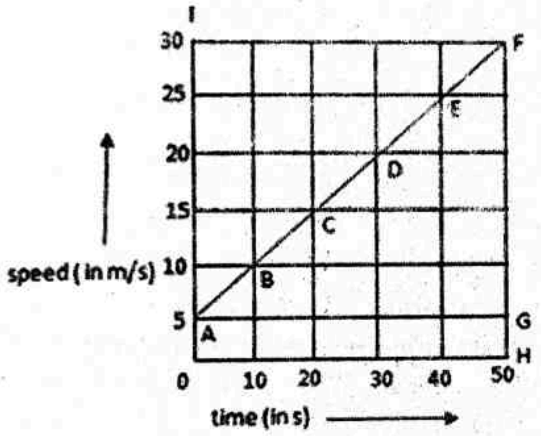
PHYSICS

71. The ratio of speed to the magnitude of velocity when the body is moving in one direction is:
(a) Less than one
(b) Greater than one
(c) Equal to one
(d) Greater than or equal to one

72. If the displacement of an object is proportional to square of time, then the object moves with:
(a) Uniform velocity
(b) Uniform acceleration
(c) Increasing acceleration
(d) Decreasing acceleration

73. Suppose a boy is enjoying a ride on a marry-go-round which is moving with a constant speed of 10 m/s. It implies that the boy is:
(a) At rest
(b) Moving with no acceleration
(c) In accelerated motion
(d) Moving with uniform velocity

74. The speed - time graph of a car is given here. Using the data in the graph calculate the total distance covered by the car.



(a) 1250 m (b) 875 m
(c) 1500 m (d) 750 m

75. Which of the following is most likely not a case of uniform circular motion?
(a) Motion of the earth around the sun
(b) Motion of a toy train on a circular track
(c) Motion of a racing car on a circular track
(d) Motion of hours' hand on the dial of a clock

76. A ball is thrown vertically upwards. At its highest point:
(a) Net force = 0, velocity = 0, acceleration = 0
(b) Net force = 0, velocity = 0, acceleration $\neq$ 0
(c) Net force $\neq$ 0, velocity = 0, acceleration $\neq$ 0
(d) Net force $\neq$ 0, velocity $\neq$ 0, acceleration = 0

77. A player moves along the boundary of a square ground of side 50 m in 200 sec. The magnitude of displacement of the player at the end of 12 minutes 30 seconds from his initial position is
(a) 50 m (b) 150 m
(c) 200 m (d) $50\sqrt{2}$ m

78. The average velocity of a body is equal to mean of its initial velocity and final velocity. The acceleration of the body is:
(a) variable (b) uniform
(c) negative (d) zero

79. The slope of a speed-time graph represents a physical quantity which has the unit of
(a) m (b) m^2
(c) ms^{-1} (d) ms^{-2}

80. A body is gently dropped from a height of 20 m. if its velocity increases uniformly at a rate of 10 m/s^2, after what time will it strike the ground?
(a) 5 s (b) 4 s
(c) 3 s (d) 2 s

81. Balanced forces may ... ...a body.
(a) move
(b) accelerate
(c) retard
(d) deform

82. If the slope of distance-time graph increases with time, it indicates that the velocity of the body is:
(a) increasing with time
(b) decreasing with time
(c) remains constant
(d) uniform.

83. A body whose momentum is constant must have constant
(a) force
(b) velocity
(c) acceleration
(d) speed

84. The SI unit of impulse is
(a) $kg.ms^{-1}$
(b) $kg.ms^{-2}$
(c) N
(d) N/s

85. The velocity of a body of mass 20 kg decreases from 20 m/s to 5 m/s in a distance of 100 m. Force on the body is:
(a) - 27.5 N
(b) - 47.5 N
(c) - 37.5 N
(d) - 67.5 N

86. Which of the following is not is not an example of Newton's third law of motion?
(a) A cricket player lowering his hand while catching a ball
(b) Walking on a floor
(c) Rebounding of a rubber ball
(d) Flight of a jet

87. When the distance between the two objects is reduced to half, percentage increase in the force of gravitation will be :
(a) 100% (b) 200%
(c) 300% (d) 400%

88. The acceleration due to gravity:
(a) has the same value everywhere in space.
(b) has the same value everywhere on the earth.
(c) varies with the latitude on the earth.
(d) is greater on the moon.

89. **Assertion:** It is the gravitational force exerted by the sun and the moon on the sea water that causes to the formation of tides in the sea.
Reason : Gravitational force of attraction is a strong force.
(a) If both assertion and reason are true and reason is the correct explanation of assertion.
(b) If both assertion and reason are true but reason is not the correct explanation of assertion
(c) If assertion is true but reason is false
(d) If assertion is false but reason is true

90. Which is a wrong statement about universal gravitational constant?
(a) It has the same value at all places.
(b) It is never zero.
(c) It is vector quantity.
(d) Its value is $6.67 \times 10^{-11}\ Nm^2/kg^2$

91. The point where the pull of the earth exerting on a body is equal to the pull exerted by the moon is called
(a) zero gravity.
(b) null point.
(c) gravitational constant.
(d) escape point.

92. A physical balance is used to measure the ..... of an object.
(a) acceleration
(b) density
(c) weight
(d) mass

93. To increase the effect of force, the area on which it acts :
(a) Should be increased
(b) Should be decreased
(c) Needs no change
(d) All of them

94. Fressure exerted by a liquid on a container (in which it is enclosed) acts on
(a) The base of the container
(b) The walls of the container
(c) Both base and walls of the container
(d) None of these

95. The upward force exerted by the liquid displaced by the body when it is placed inside the liquid, is called as :
(a) Centripetal force
(b) Force of Friction
(c) Gravitational force
(d) Buoyant force

96. The buoyant force acting on the air-ship as it rises in the air will be...
(a) Buoyant force increases
(b) Buoyant force decreases
(c) Buoyant force remains constant
(d) Buoyant force first increases then decrease

97. Choose the correct statement/ statements for work to be done.
I. Action of force is necessary.
II. Displacement is necessary.
III. Displacement in the direction of force is necessary.
(a) Statement I
(b) Statement II
(c) Statement III
(d) Statement I and III

98. Mass of a man is 60 kg. He climbs up 20 m height with a bucket having water of mass 15 kg. So, work done is ..... kJ. ($g = 10\ ms^{-2}$)
(a) 15 (b) 20
(c) 150 (d) 1.5

99. A box of 20 kg mass is pulled by force F with constant velocity on a horizontal surface. If force of friction is 49 N, total work done during displacement of 10 m is... ... ... J.
(a) 490 (b) 245
(c) 980 (d) zero

100. Change in momentum of an object in 4 second while moving 10 m along a straight path is 20 $kgms^{-1}$. Amount of work done will be:
(a) 25 J (b) 50 J
(c) 75 J (d) 100 J

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