Monthly Progressive Test

Class: IX (G)

Subject: PCMB

Academic Excellence Programme TECHNO ACE

Test Booklet No.: MPT06 **Test Date: 03102024**

Time: 120 mins **Full Marks: 200**

Important Instructions :

1. The Test is of 120 mins duration and the Test Booklet contains 100 multiple choice questions of single correct option only. There are four sections with four subjects. You have to attempt all 100 questions (Candidates are advised to read all 100 questions). Questions 1 to 25 contain Physics, Questions 26 to 50 contain Chemistry, Questions 51 to 75 contain Mathematics, Questions 76 to 100 contain Biology.
2. Each question carries 2 marks. For each correct response, the candidate will get 2 marks. There is no negative mark for wrong response. The maximum mark is 200.
3. Use Blue / Black Ball point Pen only for writing particulars marking responses on Answer Sheet.
4. Rough work is to be done in the space provided for this purpose in the Test Booklet only.
5. On completion of the test, the candidate must handover the Answer Sheet to the invigilator before leaving the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
6. The CODE for this Booklet is Off Line MPT06(G)03102024
7. The candidates should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your UID No. anywhere else except in the specified space. Use of white fluid for correction is NOT permissible on the Answer Sheet. **Do not scrible or write on or beyond discrete bars of OMR Sheet at both sides**.
8. Each candidate must show on-demand his/her Registration document to the Invigilator.
9. No candidate, without special permission of the Centre Superintendent or Invigilator, would leave his/her seat.
10. Use of Electronic Calculator/Cellphone is prohibited.
11. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
12. No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.
13. There is no scope for altering response mark in Answer Sheet.

Space For Rough Works

Physics

1. The evidence to show existence of force acting between Sun and Earth and directed towards the Sun is

   Ⓐ Spin motion of Earth about its axis Ⓑ Deviation of falling body

   Ⓒ Phenomenon of day and night

   Ⓓ Apparent motion of the Sun around the Earth

2. The value of G

   Ⓐ Decreases with height Ⓑ Is zero at the centre of Earth

   Ⓒ Increases with height Ⓓ Remains same everywhere

3. If the distance between the Sun and Earth is increased to twice then the F_{new} will

   Ⓐ Decrease by 75% Ⓑ Increase 25% Ⓒ Remain same Ⓓ Decrease by 25%

4. Two bodies having masses u and v are separated by a distance x, then the gravitational force between them will be F =

   Ⓐ $\frac{gw}{x}$ Ⓑ $\frac{Gw}{x^2}$ Ⓒ $\frac{Gw^2}{x}$ Ⓓ $\frac{gw}{x^2}$

5. If the masses of two objects are halved (each) and separation between them is also halved, the new gravitation force between them becomes Fnew =

   Ⓐ $F_{initial}$ Ⓑ $2\,F_{initial}$ Ⓒ $0.5 \times F_{initial}$ Ⓓ $4\,F_{initial}$

6. A stone is allowed to fall from the top of a tower 100 m high and at the same time another stone is projected vertically upwards from the ground with a velocity of 25 m/s, then

   Ⓐ Two stones meet after 4 s at a height 10 m from the ground

   Ⓑ Two stones meet after 4 s at a height of 20 m from the ground

   Ⓒ Two stones meet after 5 s

   Ⓓ Two stones meet at a height of 30 m

7. If the weight of a body is same at height h and depth d (where h and d are much smaller than the radius of earth), then h : d =

   Ⓐ 1 : 2 Ⓑ 1 : 3 Ⓒ 1 : 4 Ⓓ 1 : 1

8. A falling apple led to realize that the earth attracts all objects towards its centre.

   Ⓐ True Ⓑ False Ⓒ May be true Ⓓ None of the above.

9. Every object in the universe attracts each other object.

   Ⓐ True Ⓑ False Ⓒ May be true Ⓓ None of the above.

10. The force of attraction between two objects in the universe is independent of intervening medium.

Ⓐ False Ⓑ May be false Ⓒ True Ⓓ We can not say

11. The gravitational force of attraction between any two particles is directly proportional to the

Ⓐ Square of the product of their masses

Ⓑ Square root of the product of their masses

Ⓒ product of their masses.

Ⓓ None of these.

12. The gravitational force of attraction obeys inverse square law of the distance between the objects

Ⓐ May be true Ⓑ False Ⓒ True Ⓓ Data insufficient.

Assertion-Reason type Questions (13–14):

Directions: Read the following questions and choose any one of the following four responses.

A: Assertion and Reason both are correct and Reason is the correct explanation of Assertion

B: Assertion and Reason both are correct and Reason is not the correct explanation of Assertion

C: Assertion is correct but Reason is wrong

D: Assertion is wrong but Reason is correct

13. **Assertion :** Whenever an object moves near the surface of earth, with no other object pushing or pulling it ,it is accelerated.

Reason : The acceleration is caused due to the force of gravity and is called the acceleration due to gravity.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

14. **Assertion :** The direction of acceleration due to gravity is towards the centre of earth.

Reason : In SI unit ,the value of g is 9.8 m/s^2

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

Case Based Questions (Q. No. 15) :

We know that planets go around the Sun. The moon goes around the earth. We know that a force is needed to change the speed or direction of motion of an object. We have observed that an object dropped from a height falls towards the earth with higher speed. The same force is responsible for all these .This force is called gravitational force.

15. The concept of universal law of gravitation can explain the motion of planets around the Sun.

Ⓐ False Ⓑ May be false Ⓒ True Ⓓ None of the above.

16. If a body starts from rest and moves with uniform acceleration, then:

Ⓐ $v \propto t$ Ⓑ $s \propto t$ Ⓒ $s \propto s$ Ⓓ $s \propto \sqrt{t}$

17. A body from rest, moves with an acceleration of 2 $m\,s^{-2}$. Then the distance travelled in the 4th second is (m).

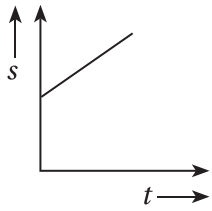
Ⓐ 10 Ⓑ 6 Ⓒ 7 Ⓓ 28

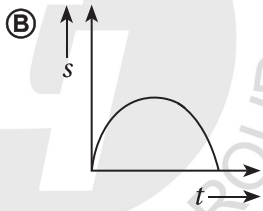
18. A man is at a distance of 6 m from a bus. The bus begins to move with a constant acceleration of 3 $m\,s^{-2}$. In order to catch the bus, the minimum speed with which the man should run towards the bus is (in 2 s)

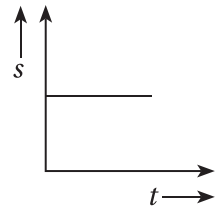
Ⓐ 2 $m\,s^{-1}$ Ⓑ 4 $m\,s^{-1}$ Ⓒ 6 $m\,s^{-1}$ Ⓓ 8 $m\,s^{-1}$

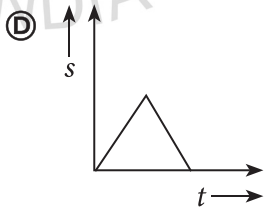
19. Which one of the following represents uniform motion?

a

Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

20. A stone is thrown upwards from the surface with an initial speed of 5 m/s. The stone comes to rest height of ($g = 10\ m/s^2$) h m from ground. Then 10h =

Ⓐ 1.25 m Ⓑ 12.5 m Ⓒ 125 m Ⓓ 2.45 m

21. If the weight of a body is same at height h and depth d (where h and d are much smaller than the radius of earth), then h : d =

Ⓐ 1 : 2 Ⓑ 1 : 3 Ⓒ 1 : 4 Ⓓ 1 : 1

22. If the change in the value of g at a depth d and at the height h above the surface of Earth is same then

Ⓐ d = 3h Ⓑ d = 2h Ⓒ 2d = h Ⓓ d = 1.5h

23. If g_e and g_p denote accelerations due to gravity on the surface of the earth and on a planet respectively whose mass and radius are twice that of the earth, then

Ⓐ $g_e = g_p$ Ⓑ $g_e = 2g_p$ Ⓒ $2g_e = g_p$ Ⓓ $g_e = 4g_p$

24. An earth satellite of mass x revolves in a circular orbit at a height y from the surface of the Earth. If R is the radius and g is the acceleration due to gravity, the expression of velocity of satellite in its orbit is

Ⓐ $\sqrt{gR}$ Ⓑ $\frac{gR^2}{R+y}$ Ⓒ $R\sqrt{\frac{g}{R+y}}$ Ⓓ $\sqrt{\frac{gy}{R+2y}}$

25. A sphere of mass 2 kg is falling freely under gravity from 20 m height. Which of the following physical quantity remains unchanged?

Ⓐ Weight Ⓑ Mass Ⓒ Velocity Ⓓ Both A and B

Chemistry

26. Kalium is the Latin name of _____

Ⓐ Potassium Ⓑ Krypton Ⓒ Calcium Ⓓ Proton

27. The gram molecular mass of ammonia is _____. [N = 14, H = 1]

Ⓐ 17 grams Ⓑ 31 grams Ⓒ 20 grams Ⓓ 25 grams

28. Atomic mass of calcium is 40. The mass of 2.5 gm atoms of calcium is _____

Ⓐ 40 g Ⓑ 2.5 g Ⓒ 100 g Ⓓ 80 g

29. The molecular formula of nitre is _____.

Ⓐ $NaNO_3$ Ⓑ KNO_3 Ⓒ KNO_2 Ⓓ KCN

30. The value of Avogadro constant is _____.

Ⓐ 6.022×10^{24} Ⓑ 6.022×10^{22} Ⓒ 60.22×10^{23} Ⓓ 6.022×10^{23}

31. All samples of carbon dioxide contain carbon and oxygen in the mass ratio of 3 : 8. This is in agreement with the Law of _____.

Ⓐ Conservation of Mass Ⓑ Constant Proportion

Ⓒ Multiple Proportion Ⓓ Reciprocal Proportion

32. The number of atoms in a molecule of the elementary substances is called _____.

Ⓐ Atomic number Ⓑ Avogadro number Ⓒ Atomic mass Ⓓ Atomicity

Assertion Reason Type Question (33-34):

Read the two statements carefully and select the correct option given below.

A: Assertion and Reason both are correct and Reason is the correct explanation of Assertion

B: Assertion and Reason both are correct and Reason is not the correct explanation of Assertion

C: Assertion is correct but Reason is wrong

D: Assertion is wrong but Reason is correct

33. **Assertion (A):** Chemical properties of nitrogen and oxygen are different

Reason (R): Both nitrogen and oxygen are gaseous

34. **Assertion (A):** Atomicity of sulphuric acid is 9

Reason (R): Atomicity is defined as the total number of atoms present in the molecule

Case Based Questions (35–36):

John Dalton proposed the first atomic theory of a substance and according to this theory, atoms are the smallest individual part and they are indivisible and they cannot be created or destroyed. Atoms of different elements have different chemical and physical properties. Atoms combine in simple whole number ratio of their masses. The relative number and kinds of atoms are constant in given compound

35. The smallest individual part of an element is

Ⓐ Molecule Ⓑ Atom Ⓒ Mixture Ⓓ Compound

36. Atoms cannot be created or destroyed. This statement supports

Ⓐ Law of definite proportion Ⓑ Law of increase in mass and energy

Ⓒ Law of conservation of mass Ⓓ Law of conservation of volume

37. Atomic mass of element 'X' is 41 u and that for 'Y' is 72 u. The formula unit mass of the X_2Y_3 is

Ⓐ 342 u Ⓑ 298 u Ⓒ 254 u Ⓓ *264 u*

38. A container has 3.011×10^{21} neon atoms. What is the number of mole ?

Ⓐ 0.005 mole Ⓑ 0.05 mole Ⓒ 0.0005 mole Ⓓ 0.5 mole

39. If atomic mass of oxygen is 16 u then correct value of number of moles of 4 gm oxygen molecules is

Ⓐ 0.25 mole Ⓑ 0.75 mole Ⓒ 0.125 mole Ⓓ 0.425 mole

40. Consider the equation $P_4 + 5O_2 \longrightarrow 2P_2O_5$. What mass of P_2O_5 will be formed when

0.31 gm phosphorus will be reacting completely ? [atomic mass : P = 31, O = 16]

Ⓐ 0.71 gm Ⓑ 0.142 gm Ⓒ 0.284 gm Ⓓ 0.355 gm

41. The chemical formula of Aluminium sulphate is

Ⓐ $AlSO_4$ Ⓑ Al_2SO_4 Ⓒ $Al_2(SO_4)_3$ Ⓓ $Al_3(SO_4)_2$

42. The value of *a*, *b* and *c* in the equation

$a\,Pb(NO_3)_2 \xrightarrow{\Delta} b\,PbO + c\,NO_2 + O_2$ are respectively

Ⓐ 4, 2, 2 Ⓑ 2, 4, 2 Ⓒ 2, 2, 2 Ⓓ 2, 2, 4

43. Aqueous solution of barium chloride reacts with the aqueous solution of

Ⓐ hydrochloric acid Ⓑ sodium chloride

Ⓒ sodium sulphate Ⓓ sodium bromide

44. Fractional distillation makes use of the difference in _____

Ⓐ rates of dissolution Ⓑ purity

Ⓒ solubilities Ⓓ boiling point

45. Wrong statements about atoms are

(I) Only all liquid and solid matters are made up of atoms

(II) At the end of a reaction, atoms are destroyed

(III) The relative number and kind of atoms are not constant for a given compound

Ⓐ I, II, III Ⓑ I, II Ⓒ II, III Ⓓ I, III

46. The atomicity of ozone, sulphur and argon is respectively

Ⓐ 8, 3, 1 Ⓑ 1, 8, 3 Ⓒ 3, 8, 1 Ⓓ 8, 1, 3

47. How many molecules are present in 200 gm calcium carbonate [Atomic mass : calcium = 40, carbon = 12, oxygen = 16, Avogadro number =]

Ⓐ 1.2044×10^{21} Ⓑ 12.044×10^{23} Ⓒ 12.044×10^{24} Ⓓ 1.2044×10^{23}

48. What weight in grams is represented by 1.5 moles of sulphur dioxide? [S = 32, O = 16]

Ⓐ 60g Ⓑ 140g Ⓒ 96g Ⓓ 91g

Assertion Reason Type Question (49):

Read the two statements carefully and select the correct option given below.

A: Assertion and Reason both are correct and Reason is the correct explanation of Assertion

B: Assertion and Reason both are correct and Reason is not the correct explanation of Assertion

C: Assertion is correct but Reason is wrong

D: Assertion is wrong but Reason is correct

49. **Assertion (A):** Atomic Mass of Mg is 24

Reason (R): An atom of magnesium is 24 times heavier than $\frac{1}{12}$th of the mass of carbon atom (C – 12)

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

Case study based Questions (50):

Read the passage given below and answer the question that follow:

A mole is a collection of 6.02×10^{23} particles and the number 6.02×10^{23} is called Avogadro's number. The mass of this number of atom in an element is equal to its gram atomic mass and mass of this number of molecules in a compound is equal to its gram molecular mass. The volume occupied by this number of molecules of a gas at N.T.P. is 22.4 C. When 6.02×10^{23} molecules of a substance are dissolved in 1L of solution, the solution is Known as 1 molar solution.

50. 0.49 gm sulphuric acid is added to 1.8 gm water. What is the total number of moles of the mixture ? [Atomic mass : hydrogen = 1, sulpher = 32, oxygen = 16, Avogadro number = 6.02×10^{23}]

Ⓐ 0.015 mole Ⓑ 0.105 mole Ⓒ 0.15 mole Ⓓ 0.03 mole

Mathametics

51. Abscissa of all the points on x-axis is _____.

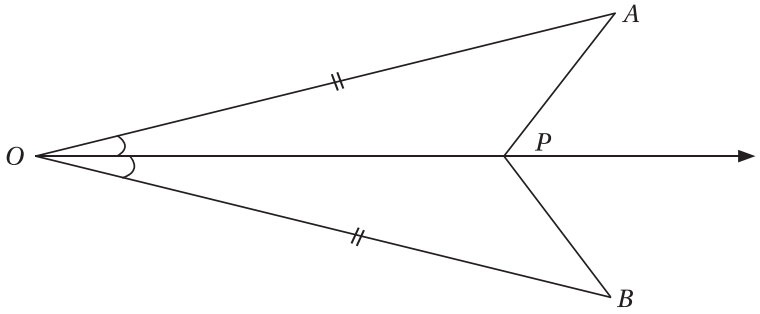
Ⓐ 0 Ⓑ 1 Ⓒ 2 Ⓓ any number

52. The line x – 7 = 0 is

Ⓐ parallel to y-axis Ⓑ parallel to x-axis

Ⓒ passing through the origin Ⓓ parallel to x-axis

53. $\Delta OAP \cong \Delta OBP$ in given figure. The criteria by which the triangles are congruent is

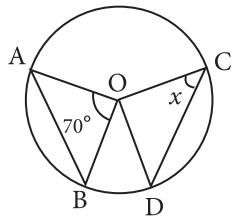


Ⓐ SAS Ⓑ SSS Ⓒ RHS Ⓓ ASA

54. In a parallelogram ABCD, $\angle BAD = 75°$, $\angle CBD = 65°$; then the value of $\angle BDC$ is

Ⓐ 40° Ⓑ 45° Ⓒ 50° Ⓓ 60°

55. O is the centre of the circle, If chord AB = chord CD, then x =



Ⓐ 70° Ⓑ 50° Ⓒ 55° Ⓓ 45°

56. In a trapezium ABCD, AB || DC and AB = 7 cm and DC = 5 cm. If E, F are the mid-point of AD and BC respectively then the length of EF is

Ⓐ 5 cm Ⓑ 7 cm Ⓒ 6 cm Ⓓ 12 cm

57. If 3x + 2y = 17 and x and y are positive integers, then y could be which of the following

Ⓐ 2 Ⓑ 3 Ⓒ 4 Ⓓ 5

Assertion-Reason Based Questions (58–59):

Directions: Read the following questions and choose any one of the following four responses.

a. Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.
b. Both Assertion and Reason are true but Reason is not the correct explanation of the Assertion.
c. Assertion is true but the Reason is false.
d. Assertion is false but Reason is true.

58. **Assertion:** The point P (–3, 0) lies on x-axis.

Reason: Every point on x-axis is of the form (x, 0).

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

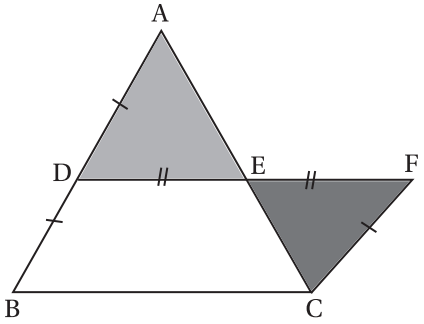
59. **Assertion:** The point O (0, 0) lies on quadrant I.

Reason: The point O (0, 0) lies on both the axes.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

Case Study based Questions (60-62) :

Read the paragraph given below and answer the following questions:



Hareesh and Deep were trying to prove a theorem. For this they did the following : i) Drew a triangle ABC ii) D and E are found as the mid points of AB and AC iii) DE was joined and DE was extended to F so DE = EF iv. FC was joined.

60. ΔADE and ΔCFE are congruent by which criteria?

Ⓐ SSS Ⓑ RHS Ⓒ SAS Ⓓ ASA

61. $\angle EFC$ is equal to which angle?

Ⓐ $\angle DAE$ Ⓑ $\angle EDA$ Ⓒ $\angle AED$ Ⓓ $\angle B$

62. $\angle ECF$ is equal to which angle?

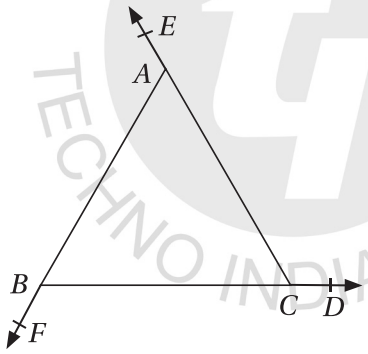
Ⓐ $\angle EAD$ Ⓑ $\angle ADE$ Ⓒ $\angle AED$ Ⓓ $\angle B$

63. Which of the following is not a criterion for congruence of triangles?

Ⓐ SSA Ⓑ SAS Ⓒ ASA Ⓓ SSS

64. The sides BC, CA and AB of ΔABC have been produced to D, E and F respectively as shown in the figure, forming exterior angles $\angle ACD$, $\angle BAE$ and $\angle CBF$.

Then $\angle ACD + \angle BAE + \angle CBF = ?$



Ⓐ 240° Ⓑ 300° Ⓒ 320° Ⓓ 360°

65. If the point (3, 4) lies on the graph of the equation $3y = ax + 7$, then the value of a is

Ⓐ $\frac{5}{3}$ Ⓑ 1.6 Ⓒ 1 Ⓓ $\frac{2}{5}$

66. Representation of $3.\overline{6}$ in $\frac{p}{q}$ form is

Ⓐ $\frac{11}{3}$ Ⓑ $\frac{3}{11}$ Ⓒ $\frac{10}{10}$ Ⓓ $\frac{33}{10}$

67. If $a^{\frac{1}{3}} + b^{\frac{1}{3}} + c^{\frac{1}{3}} = 0$, then

Ⓐ $a + b + c = 0$ Ⓑ $(a + b + c)^3 = 27abc$

Ⓒ $a + b + c = 3abc$ Ⓓ $a^3 + b^3 + c^3 = 0$

68. If $x + y = 2013$ and $\frac{1}{x}+\frac{1}{y}=2013$ what is the value of xy?

Ⓐ $\frac{1}{2013}$ Ⓑ 4026 Ⓒ 0 Ⓓ 1

69. If $p(x) = x + 4$, then $p(x) + p(-x) = ?$

Ⓐ 0 Ⓑ 4 Ⓒ $2x$ Ⓓ 8

70. In ΔABC, if $\angle A + \angle B = 125°$ and $\angle A + \angle C = 113°$, then $\angle A = ?$

Ⓐ $(62.5)°$ Ⓑ $(56.5)°$ Ⓒ $58°$ Ⓓ $63°$

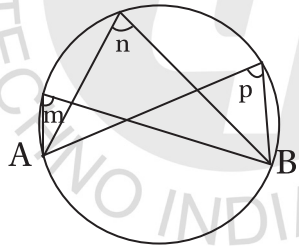
71. If $y = mx + c$ represeents the equation of a line, then m is called slope of this line. Find the slope of the line $\frac{3x}{4}=\frac{5y}{8}+7$.

Ⓐ $1\frac{1}{5}$ Ⓑ $2\frac{1}{5}$ Ⓒ $3\frac{1}{5}$ Ⓓ $2\frac{3}{5}$

72. Which of the points A (0, 6), B (–2, 0), C (0, –5), D (3, 0) and E (1, 2) does not lie on x-axis?

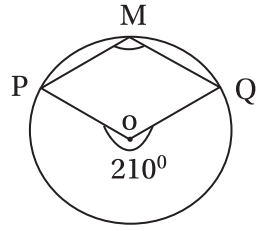
Ⓐ A and C Ⓑ B and D Ⓒ A, C and E Ⓓ E only

73. In the figure as shown ; if $m = 40^0$, then find n + p



Ⓐ $\frac{m}{2}$ Ⓑ 2m Ⓒ 3m Ⓓ $\frac{3}{2}m$

74. If reflex $\angle POQ = 210^\circ$, then find $\angle PMQ$



Ⓐ 105° Ⓑ 60° Ⓒ 75° Ⓓ 90°

75. ABC is an isosceles triangle having AB equal to AC and the angles at B and C are bisected by BO and CO respectively, then

Ⓐ OB = BC Ⓑ OC = BC Ⓒ OB = OC Ⓓ none of these

Biology

76. The meristematic cells show

Ⓐ Thin walls Ⓑ Prominent nuclei Ⓒ Absence of vacuoles Ⓓ All of these

77. Bones are a type of

Ⓐ Cartilage Ⓑ Ligament Ⓒ Connective tissue Ⓓ All of these

78. Cells are living or dead, depends upon the presence of

Ⓐ Nucleus Ⓑ Mitochondria Ⓒ Protoplasm Ⓓ All of these

79. Which of the following acts as a middle man?

Ⓐ WBC Ⓑ Plasma Ⓒ Blood Ⓓ Lymph

80. The cytoplasm of muscle fibre is called _____

Ⓐ Neoplasm Ⓑ Sarcoplasm Ⓒ Glycogen Ⓓ Myofibre

81. The division in meristematic cells is

Ⓐ Mitotic Ⓑ Amitotic Ⓒ Meiotic Ⓓ All

82. Every connective tissue has

Ⓐ Matrix Ⓑ Cells Ⓒ Both A and B Ⓓ Muscle

Case Based Questions (83–87):

Read the given passage and answer the following questions :

Permanent tissues arise from meristematic tissues and have specific structural and functional properties. They are made up of either dead or living cells. Permanent tissues are of two types. Vascular tissues are also a type of permanent tissue.

83. Which of the following is not a permanent tissue?

Ⓐ Parenchyma Ⓑ Xylem Ⓒ Phloem Ⓓ Apical meristem

84. Which of the following is concerned with transport of water in plants?

Ⓐ Xylem Ⓑ Phloem Ⓒ Parenchyma Ⓓ Collenchyma

85. Which tissue shows deposition of pectin on the cell wall?

Ⓐ Parenchyma Ⓑ Collenchyma Ⓒ Sclerenchyma Ⓓ All

86. How many elements of the xylem are dead?

Ⓐ 1 Ⓑ 2 Ⓒ 3 Ⓓ 4

87. Which tissue is found in seed coats?

Ⓐ Parenchyma Ⓑ Collenchyma Ⓒ Sclerenchyma Ⓓ All

Cont.. 12

Assertion-Reason type Questions (88–90):

Directions: Read the following questions and choose any one of the following four responses.

A. Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.

B. Both Assertion and Reason are true but Reason is not the correct explanation of the Assertion.

C. Assertion is true but the Reason is false.

D. Assertion is false but Reason is true.

88. **Assertion:** Blood is a fluid connective tissue

Reason: The matrix of blood is a fluid called plasma

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

89. **Assertion:** Neurons look like wires

Reason: Neurons help in faster conduction of impulse

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

90. **Assertion:** Connective tissue forms the lining of all organs

Reason: Lymph is a fluid connective tissue

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

91. Prokaryotic cells generally show

Ⓐ Amitosis Ⓑ Mitosis Ⓒ Meiosis Ⓓ They do not divide

92. The mother cell undergoing meiosis is

Ⓐ Haploid Ⓑ Diploid Ⓒ Triploid Ⓓ Tetraploid

93. Choose the odd one out —

Ⓐ Plasma Ⓑ RBC Ⓒ WBC Ⓓ Bone

94. Which organelle imparts colour to flowers and fruits?

Ⓐ Chromoplast Ⓑ Ribosome Ⓒ Chloroplast Ⓓ Mitochondria

95. Which of the following is not a component of xylem?

Ⓐ Tracheids Ⓑ Vessels Ⓒ Fibres Ⓓ Companion cells

Case Based Questions (96–98):

Read the given passage and answer the following questions :

The epithelial tissue is the protective tissue of the animal body. It is of various types – sometimes occuring in a single layer and sometimes in several layers. All epithelial cells lie on a delicate non-cellular membrane. The cells may sometimes have hair-like cilia on the top.

96. The non-cellular membrane lying under the epithelial cells is called –

Ⓐ Lumen Ⓑ Basement membrane

Ⓒ Areolar cells Ⓓ Lymph

97. The alveolar wall is made up of _____ epithelium.

Ⓐ Squamous Ⓑ Cuboidal Ⓒ Columnar Ⓓ Glandular

98. The inner lining of kidney tubules is made up of _____ epithelium

Ⓐ Squamous Ⓑ Cuboidal Ⓒ Columnar Ⓓ Both A and B

Assertion-Reason type Questions (99–100):

Directions: Read the following questions and choose any one of the following four responses.

A. Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.

B. Both Assertion and Reason are true but Reason is not the correct explanation of the Assertion.

C. Assertion is true but the Reason is false.

D. Assertion is false but Reason is true.

99. **Assertion:** Chlorenchyma is a type of collenchyma.

Reason: Chlorenchyma helps in photosynthesis.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

100. **Assertion:** Smooth muscle fibres are spindle shaped.

Reason: Smooth muscles are involuntary.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

Space For Rough Works

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