Monthly Progressive Test

Class: IX

Subject: PCMB

Academic Excellence Programme TECHNO ACE

Test Booklet No.: MPT09 **Test Date:** 2 0 0 1 2 0 2 5

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 MPT0920012025.
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. A car covers 30 km at a uniform speed of 30 km/h. What should be its speed for the next 90 km if the average speed for the entire journey is 60 km/h?

   Ⓐ 45 km/h Ⓑ 50 km/h Ⓒ 90 km/h Ⓓ 65 km/h

2. A boy runs for 10 min at a uniform speed of 9 km/h. At what speed should he run for the next 20 minute so that the average speed comes to 12 km/h?

   Ⓐ 13.5 km/h Ⓑ 12 km/h Ⓒ 10 km/h Ⓓ 11 km/h

3. An insect moves along a circular path of radius 10 cm with a constant speed. If it takes 1 minute to move from a point on the path to the diametrically opposite point, then the average velocity is

   Ⓐ 10 cm/min Ⓑ 20 cm/min Ⓒ 15 cm/min Ⓓ 25 cm/min

4. A train is moving at a speed of 40 km/h at 11.00 a.m. and at 45 km/h at 11.02 a.m. Assuming that the train moves along a straight track and the acceleration is constant, then the value of the acceleration is

   Ⓐ 300 km/h^2 Ⓑ 200 km/h^2 Ⓒ 150 km/h^2 Ⓓ 100 km/h^2

5. A train accelerates from 15 km/h to 75 km/h in 4 minutes. The distance it covers during this period is

   Ⓐ 1 km Ⓑ 2 km Ⓒ 2.5 km Ⓓ 3 km

6. If a set of forces acting on a body produces no acceleration in it, the forces are said to be

   Ⓐ Balanced Ⓑ Unbalanced Ⓒ Sometimes balanced Ⓓ Difficult to say

7. If the contact forces between two bodies are perpendicular to the surfaces in contact, the forces are called

   Ⓐ Friction Ⓑ Normal force Ⓒ Sometimes friction Ⓓ Pull

8. An extended spring pulls objects attached to its ends.

   Ⓐ False Ⓑ Sometimes false Ⓒ True Ⓓ We can't say

9. Even if an object is not in contact with the earth, the earth

   Ⓐ Pushes it Ⓑ Pulls it
   Ⓒ Sometimes earth pushes it Ⓓ Data insufficient

10. Consider a ball moving on a horizontal table with some speed. We find that its speed decreases.

    Ⓐ The table exerts a force of friction on the ball against its motion
    Ⓑ The table exerts no force on the ball
    Ⓒ The table exerts a force of friction infavour of the motion of ball
    Ⓓ None of these

11. The magnitudes of an action-reaction pair of forces are

    Ⓐ Unequal Ⓑ Zero Ⓒ Equal Ⓓ Data in sufficient

12. Suppose we drop a small stone

    Ⓐ The earth attracts the stone
    Ⓑ The stone attracts the earth
    Ⓒ As the mass of stone is small, it falls with a large acceleration which is greater than 9.8 m/s^2
    Ⓓ Both Ⓐ and Ⓑ are correct

13. We can cut a potato easily using the blunt edge of a knife.

Ⓐ True Ⓑ Sometimes true Ⓒ False Ⓓ Insufficient data

14. As divers go deeper in water, they feel pain in the ears, owing to

Ⓐ Decrease in pressure Ⓑ Increase in pressure
Ⓒ Decrease in density of water Ⓓ None of these

15. A metallic sphere of mass 2 kg and volume 2.5×10^{-4} m^3 is completely immersed in the water at 4°C. The density of water is

Ⓐ 1000 kg/m^3 Ⓑ 1 g/cm^3
Ⓒ 2000 kg/m^3 Ⓓ Both Ⓐ and Ⓑ are correct

16. A bowl made of steel floats in water. The number of forces acting on the bowl

Ⓐ 1 Ⓑ 2 Ⓒ 3 Ⓓ 4

17. The SI unit of G

Ⓐ $\frac{Nm^2}{kg^2}$ Ⓑ $\frac{Nm}{kg}$ Ⓒ $\frac{Nm^2}{kg}$ Ⓓ $\frac{Nm}{kg^2}$

18. If an object of mass m moves with uniform speed v along a circular path of radius r, its acceleration is

Ⓐ $\frac{v}{r}$ Ⓑ $\frac{v}{r^2}$ Ⓒ $\frac{v^2}{r}$ Ⓓ vr

19. If planets P and Q have time periods T_1 and T_2 respectively, and they are at distances r_1 and r_2 respectively from the Sun, then $\frac{T_1^2}{T_2^2}$

Ⓐ $\frac{r_1}{r_2}$ Ⓑ $\frac{r_1^2}{r_2^2}$ Ⓒ $\frac{r_1^3}{r_2^3}$ Ⓓ 1

20. In case of gravitation GM_e =

Ⓐ gr_e Ⓑ gr_e^2 Ⓒ $g^2r_e^2$ Ⓓ $\frac{g}{r_e}$

21. A block of mass 1 kg slides down on an inclined plane of inclination 30°. Then the work done by the block's weight as it slides through 50 cm. ($g = 9.8$ m/s^2)

Ⓐ 2.45 J Ⓑ 2 J Ⓒ 3 J Ⓓ 1.45 J

22. A ball is dropped from a height H. When it reaches the ground, its velocity is 40 m/s. The height H =

Ⓐ 71.6 m Ⓑ 81.6 m Ⓒ 90 m Ⓓ 61.4 m

■ **Assertion and Reason : (Q. No. 23)**

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.

23. **Assertion (A) :** The potential energy of a spring is minimum when it is compressed.

Reason (R) : The potential energy of a spring is minimum when it is at its natural length.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

■ **Case Based Questions :**

Metallic components are used in buildings, bridges, machines, scientific equipment, and so on. If there are cracks or holes inside the metal used, the strength of the structure or component is reduced and it can fail. Such defects are not visible from the outside.

24. What type of wave can be used to detect such deflects.

Ⓐ Ultrasonic Ⓑ Red light Ⓒ Infra red Ⓓ None of these

25. The intensity of the emerging waves falls in the region that is in the line with the defect for ultrasonic testing of cracks.

Ⓐ False Ⓑ Sometimes false Ⓒ True Ⓓ We can't say

Chemistry

26. The average atomic mass of a sample of an element 'M' is 16.2 U. What are the percentages of isotopes $^{16}M_8$, $^{18}M_8$ in the sample?

Ⓐ 80%, 20% Ⓑ 10%, 90% Ⓒ 90%, 10% Ⓓ 70%, 30%

27. Which one of following is not a solution?

Ⓐ HCl reagent Ⓑ Brass Ⓒ HCOOH + water Ⓓ Kerosene + water

28. DHOKALA is a type of solution.

Ⓐ Solid-in-solid Ⓑ solid-in-gas

Ⓒ Solid-in-liquid Ⓓ Gas-in-solid

29. _____ is not an example of aerosol

Ⓐ Fog Ⓑ Clouds Ⓒ Mist Ⓓ Shaving cream

30. Cheese is an example of which type of colloid?

Ⓐ Gel Ⓑ Foam Ⓒ Solution Ⓓ Solid Solution

31. Tyndall effect in colloids is due to _____

Ⓐ dispersion of light Ⓑ merging of light rays

Ⓒ scattering of light Ⓓ convergence of light rays

32. The boiling point of a gas is –80°C. This temperature is equivalent to:

Ⓐ –193K Ⓑ 193K Ⓒ 353K Ⓓ –353K

33. Ice is floating on water in a beaker when ice completely melts then level of water in beaker:

Ⓐ increases Ⓑ decreases

Ⓒ remains the same Ⓓ first increases then decreases

34. The mass of one molecule of a substance is 5.32×10^{-23} g. What is its molecular mass?

Ⓐ 23 g Ⓑ 42 g Ⓒ 32 g Ⓓ 60 g

35. $^{39}K_{19}$ and $^{19}F_9$ are the example of:

Ⓐ Isotopes Ⓑ Isoelectronic Ⓒ Isotone Ⓓ Isodiaphers

■ **Assertion Reason based Questions (36–39):**

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.

36. **Assertion (A) :** If the dispersed phase is liquid and dispersion medium is solid then colloid is known as gel.

Reason (R) : Milk is an example of gel.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

37. **Assertion (A) :** All isotopes of a given element show the same type of chemical behaviour.

Reason (R) : The chemical properties of an atom are controlled by the number of electrons in the atom.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

38. **Assertion (A) :** Both 138 g of K_2CO_3 and 12 g of carbon have the same number of carbon atoms.

Reason (R) : Both contain 1 g atoms of carbon which contain 6.022×10^{23} carbon atoms.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

39. **Assertion (A) :** Atomic mass of sodium is 23.

Reason (R) : An atom of sodium is 23 times heavier than an atom of carbon –12 isotope.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

40. 19.7 g of gold was recovered from a smuggler. The number of atoms of gold recovered were (Au = 197).

Ⓐ 100 Ⓑ 6.02×10^{23} Ⓒ 6.02×10^{24} Ⓓ 6.02×10^{22}

41. A = $CaCO_3$; B = NaCl

The anion part in A and B are respectively:

	A	B
(a)	Ca^{2+}	Cl^-
(b)	Ca^{2+}	Na^+
(c)	CO_3^{2-}	Na^+
(d)	CO_3^{2-}	Cl^-

Ⓐ (a) Ⓑ (b) Ⓒ (c) Ⓓ (d)

42. What is the mass of the oxygen required to react completely with 15 g of H_2 gas to form water?

Ⓐ 140 g Ⓑ 115 g Ⓒ 107.5 g Ⓓ 120 g

43. Pick out the isobar pair:

Ⓐ $^1H_1$, $^2H_1$ Ⓑ $^{13}C_6$, $^{14}N_7$ Ⓒ $^{35}Cl_{17}$, $^{37}Cl_{17}$ Ⓓ $^{40}Ar_{18}$, $^{40}Ca_{20}$

44. The number of electrons in an element 'X' is 15 and the number of neutrons is 16. Which of the following is the correct representation of the element?

Ⓐ $^{31}X_{15}$ Ⓑ $^{31}X_{16}$ Ⓒ $^{16}X_{15}$ Ⓓ $^{15}X_{16}$

■ **Case Study Based Questions (45–47):**

Answer the questions on the basis of your understanding of the following passage and related studied concept:
The maximum number of the electrons which are permitted to be assigned to an energy shell of an atom is called the electron capacity of that shell. The distribution of electrons in different orbits or shell is governed by a scheme known as Bohr-Burry scheme. According to this scheme.

(i) The maximum number of electrons that can be present in any shell is given by the formula $2n^2$ where, n is the number of energy level

(ii) The maximum number of electrons that can be accommodated in the outermost shell is 8. Electrons are filled in the shells in a stepwise manner in increasing order of energy of the energy shell.

45. What is the maximum electron capacity of N-shell?

Ⓐ 2 Ⓑ 8 Ⓒ 18 Ⓓ 32

46. Arrange the following shells in increasing order of their energy

Ⓐ K > L > M > N Ⓑ K < L < M < N Ⓒ N < M < L < K Ⓓ M < L < K < N

47. Identify the element with the following configurations: K – 2, L – 8, M – 3

Ⓐ He Ⓑ O Ⓒ Al Ⓓ Si

48. An ion M^{3+} contains 10 electrons and 14 neutrons. What are the atomic number and mass number of the element M? Identify the element.

Ⓐ $^{24}Ne_{10}$ Ⓑ $^{27}Si_{14}$ Ⓒ $^{27}Al_{13}$ Ⓓ $^{14}N_7$

49. An astronaut has to burn 40 g of glucose in his body per hour to get the required energy. Find the amount of oxygen that would need to be carried in space to meet his energy requirement for 30 days:

Ⓐ 10.2 kg Ⓑ 28.8 kg Ⓒ 30.7 kg Ⓓ 96.1 kg

50. How many years it would take to spend one Avogadro's number of rupees at the rate of 10 Lac rupees per second?

Ⓐ 1.9 years Ⓑ 1.9×10 years Ⓒ 1.9×10^2 years Ⓓ 1.9×10^{10} years

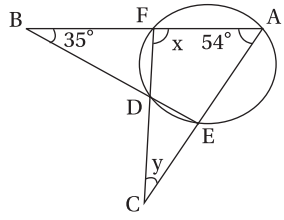
$\left[\text{Given : } \frac{6.022 \times 20^{23}}{10^6 \times 60 \times 60 \times 24 \times 365} = 19.09 \times 10^9\right]$

Mathematics

51. Two metallic right circular cones having their heights 4.1 cm and 4.3 cm respectively and the radii of their bases 2.1 cm each, have been melted together and recast into a sphere. Find the diameter of the sphere.

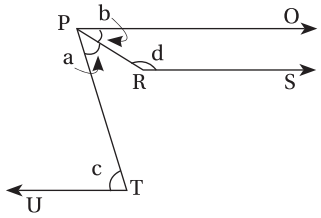
Ⓐ 2.1 cm Ⓑ 3.5 cm Ⓒ 4.2 cm Ⓓ 6.2 cm

52. In the given figure (not drawn to scale), AEDF is a cyclic quadrilateral. The values of x and y respectively are



Ⓐ 79°, 47° Ⓑ 89°, 37° Ⓒ 89°, 47° Ⓓ 79°, 37°

53. In the given figure, PQ, RS and UT are parallel lines. If c = 75° and a = ($\frac{2c}{5}$), then find the value of $b+\frac{d}{2}$.



Ⓐ 92° Ⓑ 115° Ⓒ 112.5° Ⓓ 135.5°

54. Euclid's fifth postulate is

Ⓐ The whole is greater than the part.

Ⓑ A circle may be described with any centre and any radius

Ⓒ All right angles are equal to one another.

Ⓓ If a straight line falling on two straight lines makes the interior angles on the same side of it taken together less than two right angles, then the two straight lines if produced indefinitely, meet on that side on which the sum of angles is less than two right angles.

55. John is of the same age as Mohan. Ram is also of the same age as Mohan. State the Euclid's axiom that illustrates the relative ages of John and Ram.

Ⓐ first Axiom Ⓑ Second Axiom Ⓒ Third Axiom Ⓓ fourth Axiom

56. The total number of propositions in the Elements are :

Ⓐ 465 Ⓑ 460 Ⓒ 13 Ⓓ 55

57. Boundaries of surfaces are :

Ⓐ surfaces Ⓑ curves Ⓒ lines Ⓓ points

58. The angles of a quadrilateral are respectively 120°, 98° and 92°. Find the fourth angle.

Ⓐ 70° Ⓑ 50° Ⓒ 77° Ⓓ 180°

59. Diagonals necessarily bisect opposite angles in a

Ⓐ Rectangle Ⓑ Isoscelles trapezium Ⓒ Parallelogram Ⓓ Square

60. The bisectors of any two adjacent angles of a parallelogram intersect at

Ⓐ 30° Ⓑ 45° Ⓒ 60° Ⓓ 90°

61. In a rhombus ABCD, if ∠ACB = 40°, then ∠ADB =

Ⓐ 70° Ⓑ 45° Ⓒ 50° Ⓓ 60°

62. Diagonals of a quadrilateral ABCD bisect each other. If ∠A = 45°, then ∠B =

Ⓐ 115° Ⓑ 120° Ⓒ 125° Ⓓ 135°

63. The curved surface area of a right circular cylinder of height 14 cm is 88cm^2. Then the diameter of the base of the cylinder is

Ⓐ 1 cm Ⓑ 2 cm Ⓒ 3 cm Ⓓ 4 cm

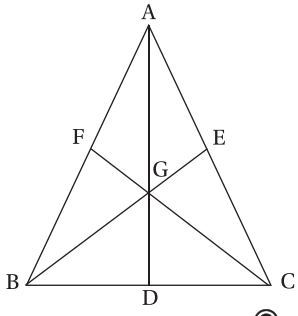
64. The diameter of the moon is approximately one fourth of the diameter of the earth. Ratio of their surface areas is : (considering both of them to be perfectly spherical)

Ⓐ $\frac{1}{2}$ Ⓑ $\frac{1}{4}$ Ⓒ $\frac{1}{8}$ Ⓓ $\frac{1}{16}$

65. Height and radius of a cylinder is doubled, then its lateral surface area k times the original one. Then k = ?

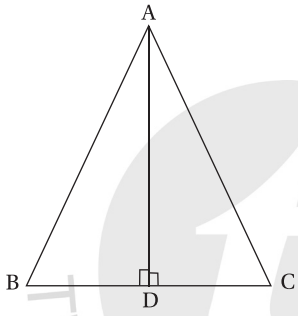
Ⓐ 2 Ⓑ 4 Ⓒ 8 Ⓓ 6

66. In Δ ABC, the medians AD, BE and CF pass through G. If BG = 6, then find the length of BE.



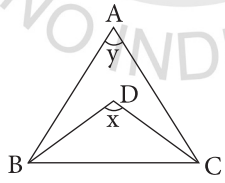
Ⓐ 6 Ⓑ 4 Ⓒ 9 Ⓓ 3

67. In Δ ABC, if AD divides BC in the ratio m : n, then area of Δ ABD : area of Δ ADC is _____ .



Ⓐ n : m Ⓑ 1 : 2 Ⓒ 3 : 2 Ⓓ m : n

68. In Δ ABC, BD and CD are internal bisectors of ∠B and ∠C respectively. Find 2x – y.



Ⓐ 180° Ⓑ 150° Ⓒ 120° Ⓓ 90°

69. Through a cylindrical pipe of cross – sectional radius 20 cm. water is flowing at the rate of 25 cm/sec. What is the volume of water (in liters) which comes out of the pipe's mouth per minute ? (Take $\pi = 3.14$)

Ⓐ 1882 *l* Ⓑ 1884 *l* Ⓒ 1886 *l* Ⓓ 1888 *l*

70. Point of intersection of altitudes of a triangle is called

Ⓐ Ortho centre Ⓑ Circum centre Ⓒ Centroid Ⓓ Incentre

Assertion-Reason type Questions (71-72):

Direction : A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).

B. Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A).

C. Assertion (A) is true but reason (R) is false.

D. Assertion (A) is false but reason (R) is true.

71. **Assertion (A) :** Every line segment has a unique midpoint.
Reason (R) : A point C is called the mid-point of a line segment AB, if C is an interior point of AB and AC = CB

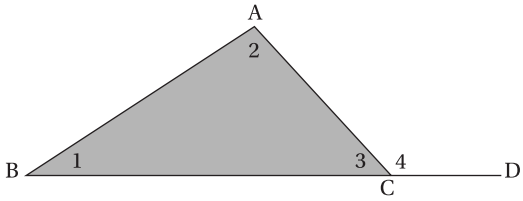
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

72. **Assertion (A) :** The diagonals of a rhombus bisect each other at right angle.
Reason (R) : A rhombus is a quadrilateral with all sides equal.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

Case Based Questions (15):

Read the passage given below and answer the following questions :



Ashok is studying in 9th class. Once he was at his home and was doing his geometry homework. He was trying to measure three angles of a triangle. He found that the second angle of the triangle was three times as large as he first. The measure of the third angle is double of the first angle.

73. What was the value of the first angle ?

Ⓐ 30° Ⓑ 45° Ⓒ 60° Ⓓ 90°

74. What was he value of he third angle ?

Ⓐ 30° Ⓑ 45° Ⓒ 60° Ⓓ 90°

75. what was the value of the second angle ?

Ⓐ 30° Ⓑ 45° Ⓒ 60° Ⓓ 90°

Biology

76. When both crops and livestock are raised on the same farm, it is called:

Ⓐ Mixed cropping Ⓑ Intercropping Ⓒ Mixed farming Ⓓ None

77. Which one of the following is a micronutrient?

Ⓐ Boron Ⓑ Potassium Ⓒ Phosphorus Ⓓ Nitrogen

78. Which of the following is not an exotic breed of cow?

Ⓐ Jersey Ⓑ Holstein-Friesian Ⓒ Sahiwal Ⓓ Brown Swiss

79. To solve the food problems of our country, which among the following is necessary?

Ⓐ Increased production of food grains
Ⓑ People should have money to purchase the food grains
Ⓒ Food grains should be easily accessible
Ⓓ All of the above

80. If an animal cell lacks a nucleus, it will also be lacking in :

Ⓐ Ribosome Ⓑ Lysosome Ⓒ Cytoplasm Ⓓ Chromosome

81. Amoeba acquires its food through a process called:
Ⓐ Exocytosis Ⓑ Endocytosis Ⓒ Plasmolysis Ⓓ All

82. The proteins and lipids, involved in the process of building the cell membrane, are manufactured by-
Ⓐ Golgi body Ⓑ Cell membrane Ⓒ Lysosomes Ⓓ Endoplasmic reticulum

83. Which of the cells does not have perforated cell wall?
Ⓐ Sieve tubes Ⓑ Vessels Ⓒ Companion cells Ⓓ Tracheids

84. Husk of coconut is made up of –
Ⓐ Sclerenchyma Ⓑ Parenchyma Ⓒ Collenchyma Ⓓ Chlorenchyma

85. Heart muscles are –
Ⓐ voluntary and striated Ⓑ involuntary and unstriated
Ⓒ voluntary and multinucleate Ⓓ involuntary, faintly striated and uninucleate

86. A bone is connected to another bone by :
Ⓐ Ligament Ⓑ Tendon Ⓒ Cartilage Ⓓ Areolar tissue

Assertion-Reason type Questions (87-92):

Direction : A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
B. Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
C. Assertion (A) is true but reason (R) is false.
D. Assertion (A) is false but reason (R) is true.

87. **Assertion (A):** Cyanobacteria is prokaryotic.
Reason (B): It initially has a true nucleus which degenerates later.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

88. **Assertion (A):** In mitosis, the mother cell divides into two equal daughter cells.
Reason (B): Mitosis occurs during the formation of gametes.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

89. **Assertion (A):** Lateral meristem increases girth of the stem.
Reason (B): Meristematic tissues, occuring in the tips of root and shoot, help to increase the length of the plant.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

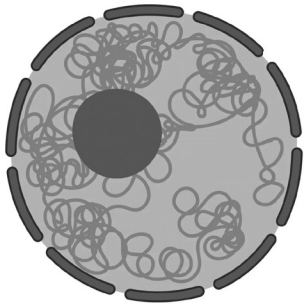
90. **Assertion (A):** Cartilage is present at the ends of long bones.
Reason (B): It prevents friction between the rubbing surfaces of bones.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

91. **Assertion (A):** Neurons have a thin thread like structure.
Reason (B): Neurons protect various parts of the body.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

92. **Assertion (A):** When a cell is placed in a hypertonic solution, it swells.
Reason (B): Exosmosis causes water to move out of the cell.
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

Case Based Questions (93-96):

Study the diagram given below and answer the following questions:



Nucleus

93. The figure given above is also called :

Ⓐ Brain of the cell Ⓑ Scavenger of the cell Ⓒ Kitchen of the cell Ⓓ Powerhouse of the cell

94. This structure is absent in :

Ⓐ Yeast Ⓑ Amoeba Ⓒ Blue green algae Ⓓ Ostrich egg

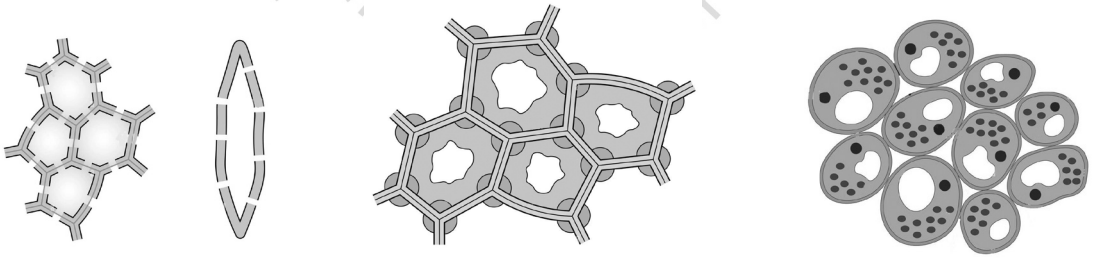
95. Which plant cell loses this structure on maturity?

Ⓐ Sieve tubes Ⓑ Parenchyma Ⓒ Apical meristem Ⓓ Companion cells

96. Choose the incorrect statement:

Ⓐ Nucleolus is covered by a single membrane
Ⓑ Nuclear pores maintains connectivity between cytoplasm and nucleoplasm
Ⓒ The chromatin threads contain genes.
Ⓓ Nucleoplasm is the matrix of the structure.

Study the diagram given below and answer the following questions: (97-100)



A B C

97. A, B and C in order are

Ⓐ Parenchyma, Collenchyma, Sclerenchyma Ⓑ Collenchyma, Sclerenchyma, Parenchyma
Ⓒ Sclerenchyma, Collenchyma, Parenchyma Ⓓ Collenchyma, Parenchyma, Sclerenchyma

98. Which tissue gets modified to aerenchyma in aquatic plants?

Ⓐ Tissue A Ⓑ Tissue B Ⓒ Tissue C Ⓓ Both Tissues A and B

99. Which tissue is found in leaf stalks?

Ⓐ Tissue A Ⓑ Tissue B Ⓒ Tissue C Ⓓ Both Tissues A and B

100. Which of these tissues cause elongation of internodes?

Ⓐ Tissue A Ⓑ Tissue B Ⓒ Tissue C Ⓓ None