



Monthly Progressive Test

Class: XI

Subject: PCMB



Test Booklet No.: MPT03

Test Date:

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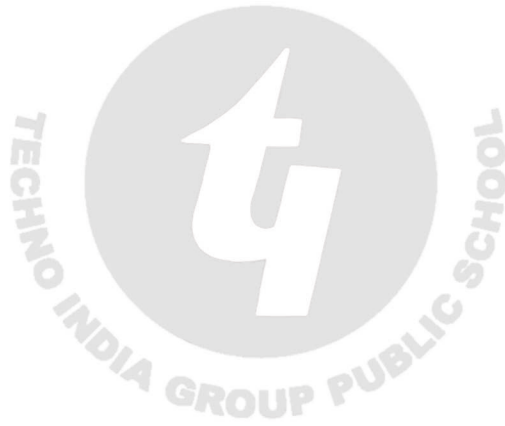
Time: 180 mins

Full Marks: 200

Important Instructions :

1. The Test is of 180 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 MPT0314062024.
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 scribble 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. Dimensions of A & B are different
 - (A) Physical quantity A can be added with B
 - (B) Physical quantity A can be subtracted from B
 - (C) Physical quantity A cannot be divided by B
 - (D) Physical quantity A can be multiplied or divided by B
2. $\frac{[x]+2[y][w]}{[z]}$ is a dimensionless quantity. If dimension of $[x]$ is LT^{-2} and that of $[y]$ is M^2T^{-1} then dimension of $[z]$ & $[w]$ is
 - (A) $M^0L^1T^{-2}, M^{-2}LT^{-1}$
 - (B) $M^0L^1T^{-2}, M^{-1}L^1T^{-2}$
 - (C) $M^1L^1T^{-2}, M^{-2}LT^{-1}$
 - (D) none of these
3. If P, Q, and R are physical quantities having different dimensions, which of the following combinations can never be a meaningful quantity
 - (A) $\frac{(P-Q)}{R}$
 - (B) $PQ - R$
 - (C) $\frac{PQ}{R}$
 - (D) $\frac{(PR-Q^2)}{R}$
4. In a newly derived system length is $1R = 10^1m$, mass $1y = 10^1kg$ & time $1X = 10^2sec$, acceleration is measured as $10RX^{-2}$ and force $= 2y \cdot Rx^{-2}$ find out mass
 - (A) 0.2 kg
 - (B) 1kg
 - (C) 20 kg
 - (D) none of these
5. Suppose refractive index is given as

$$\mu = A + \frac{B}{\lambda^2}$$
 where A and B are constants and λ is wavelength, then dimension of B are same as that of
 - (A) $(\text{wavelength})^2$
 - (B) volume
 - (C) pressure
 - (D) density
6. Two bodies of different masses say 1 kg and 5 kg are dropped simultaneously from a tower. They will reach the ground:
 - (A) simultaneously
 - (B) the heavier one arriving earlier
 - (C) the lighter one arriving earlier
 - (D) cannot say, the information is insufficient
7. A ball is released from the top of height h metre. It takes 10 s to reach the ground. Where is the ball at the time 5 s?
 - (A) at $(h/4)$ m from the ground

[2]

- Ⓑ at $(h/2)$ m from the ground
Ⓒ at $(3h/4)$ m from the ground
Ⓓ depends upon the mass and volume of the ball
8. The displacement x of a body varies with time t as

$$x = -\frac{2}{3}t^2 + 16t + 2$$

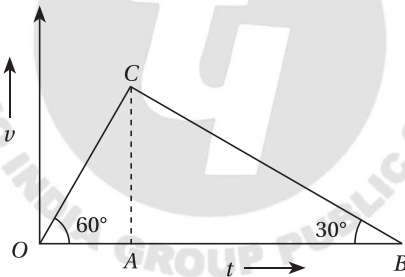
In what time the body comes to rest? x is measured in metre and t in second.

- Ⓐ 6 s Ⓑ 12 s Ⓒ 18 s Ⓓ 20 s
9. The distance covered by a body is given by

$$S = at + bt^2$$

The acceleration of the body is

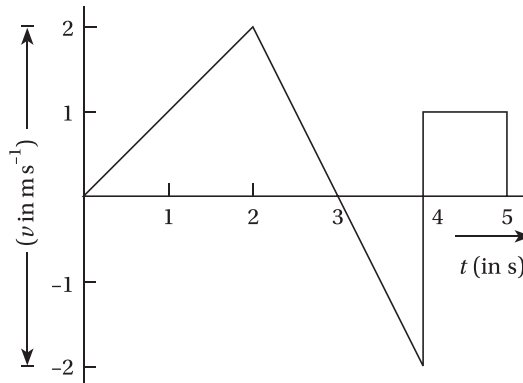
- Ⓐ $\frac{a}{b}$ Ⓑ $2b$ Ⓒ $a + b$ Ⓓ $3b$
10. The velocity-time graph of a body is shown in figure. The ratio of the _____ during the intervals OA and AB is _____



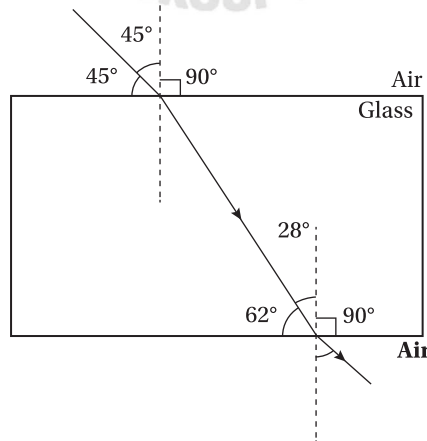
- Ⓐ average velocities, 1
Ⓑ $\frac{OA}{AB}, \frac{1}{4}$
Ⓒ average accelerations, same as distances covered
Ⓓ distances covered, $\frac{1}{2}$
11. A car accelerates from rest at a constant rate α for some time after which it decelerates at a constant rate β to come to a stop. If total time for the journey is t second, then the maximum velocity attained is
- Ⓐ $\frac{\alpha + \beta}{\alpha\beta}$ Ⓑ $\alpha + \beta$ Ⓒ $\frac{\alpha + \beta}{3}$ Ⓓ $\frac{\alpha\beta}{\alpha + \beta}t$
12. A body is thrown vertically upwards with a speed of 100 ms^{-1} . On the return journey, the speed in ms^{-1} at the starting point will be
- Ⓐ 100 ms^{-1} Ⓑ 9.8 ms^{-1} Ⓒ $100 \times 9.8 \text{ ms}^{-1}$ Ⓓ $\frac{100}{9.8} \text{ ms}^{-1}$

[3]

13. The velocity-time graph of a particle moving along a straight line is shown. The displacement of the body in 5 second is



- (A) 0.5 m (B) 1 m (C) 2 m (D) 3 m
14. Starting from rest, for rectilinear motion with uniform acceleration, the $S_{5th} : S_{4th} =$
- (A) 9/7 (B) 8/7 (C) 11/6 (D) 11/7
15. Two stones are dropped down simultaneously from different heights. At the time of starting, the distance between the stones is 30 cm. After 2 second, what will be the distance between the two stones?
- (A) 10 cm (B) 5 cm (C) 20 cm (D) 30 cm
16. A ray of light is incident on a glass slab as shown in the figure below. The angle of refraction inside glass slab (when refraction takes place from air to glass) is



- (A) 62° (B) 45° (C) 28° (D) 30°
17. A particle starts from rest and attains a velocity 10m/s in 5s, then displacement of the particle is equal to (consider rectilinear motion of uniform acceleration)
- (A) 10m (B) 15m (C) 20m (D) 25m

18. Starting from rest, a particle moves along a straight line with uniform acceleration of 3m/s^2 in the time interval of 2s. Then displacement of the particle during this period is

- (A) 2m (B) 4m (C) 6m (D) 5m

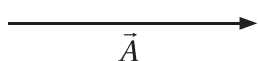
19. A particle travels first half of the distance (in m) with velocity u m/s and remaining half of the distance with velocity v m/s. Then the average speed during the period is

- (A) $uv/(u+v)$ (B) $2uv/(u+v)$ (C) $(u+v)/2$ (D) $\sqrt{(u.v)}$

20. If two vectors of equal magnitude p are acting at a point and angle between the vectors is 120° , then magnitude of resultant vector is

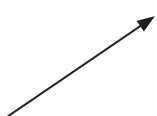
- (A) P (B) $P\sqrt{2}$ (C) $2P$ (D) $\frac{P}{2}$

21.



Select the correct option for \vec{R} as $\vec{R} = \vec{A} + \vec{B}$

(A)



(B)



(C)



(D)



22. Regarding unit vector, select the correct option

- (A) It has no unit (B) It has magnitude 1
(C) Both (A) and (B) are correct (D) None of these

23. If $\hat{u} = (\hat{i} + \hat{j} + \hat{k})N$ then \hat{u}

- (A) $\frac{(\hat{i} + \hat{j} + \hat{k})}{\sqrt{3}}$ (B) $\frac{(\hat{i} + \hat{j} + \hat{k})}{\sqrt{2}}$ (C) $\frac{(\hat{i} + \hat{j} - \hat{k})}{\sqrt{3}}$ (D) $\frac{(\hat{i} - \hat{j} - \hat{k})}{\sqrt{3}}$

24. If $\vec{A} = \hat{i} + \hat{j}$ and $\vec{B} = \hat{i} - \hat{j}$ then $|\vec{A} - \vec{B}| =$

- (A) 1 unit (B) 2 unit (C) 1.5 unit (D) 3 unit

25. If velocity of rain with respect to wind by $3(-\hat{j})$ m/s and velocity of wind with respect to ground be $4\hat{i}$ m/s, then velocity of rain with respect to ground is

- (A) $(4\hat{i} - 3\hat{j})$ m/s (B) $(4\hat{i} + 3\hat{j})$ m/s
(C) $(-4\hat{i} + 3\hat{j})$ m/s (D) $(-4\hat{i} - 3\hat{j})$ m/s

Chemistry

26. 10 g of hydrogen and 64 of oxygen were filled in a steel vessel and exploded. Amount of water produced in this reaction will be:
- (A) 1 mole (B) 2 moles (C) 3 moles (D) 4 moles
27. How many moles of magnesium phosphate, $\text{Mg}_3(\text{PO}_4)_2$ will contain 0.25 mole of oxygen atoms?
- (A) 0.02 (B) 3.125×10^{-2} (C) 1.25×10^{-2} (D) 2.5×10^{-2}
28. 2 g of mixture of CO and CO_2 on reaction with excess I_2O_5 produced 2.54 g of I_2 . What would be the mass % of CO_2 in the original mixture? $5\text{CO} + \text{I}_2\text{O}_5 \rightarrow 5\text{CO}_2 + \text{I}_2\uparrow$
[Atomic weight : C = 12, O = 16, I = 127]
- (A) 60 (B) 30 (C) 70 (D) 35
29. An organic compound on analysis was found to contain 10.06% carbon, 0.84% hydrogen and 89.10% chlorine. What will be the empirical formula of the substance?
[Atomic weight: C = 12, H = 1, Cl = 35.5]
- (A) CH_2Cl_2 (B) CHCl_3 (C) CCl_4 (D) CH_3Cl
30. An oxide of sulphur contains 50 % S. what will be its empirical formula?
[Atomic weight: S = 32, O = 16]
- (A) SO (B) SO_2 (C) SO_3 (D) S_2O_3
31. 8 g of O_2 has the same number of molecules as:
- (A) 7 g of CO (B) 11 g of CO_2 (C) 7 g of N_2 (D) All of these
32. When 10 g of 90% pure lime stone is heated completely, the volume (in litres) of CO_2 is liberated at STP is
- (A) 22.4 (B) 2.24 (C) 20.16 (D) 2.016
33. How many gms of H_3PO_4 is needed to neutralise 100 gm of $\text{Mg}(\text{OH})_2$?
[Atomic weight : Mg = 24, O = 16, H = 1, P = 31]
 $2\text{H}_3\text{PO}_4 + 3\text{Mg}(\text{OH})_2 = \text{Mg}_3(\text{PO}_4)_2 + 6\text{H}_2\text{O}$
- (A) 224 gm (B) 112 gm (C) 56 gm (D) 75 gm
34. Which of the following changes with temperature ?
- (A) Mole fraction (B) Molarity
(C) Molality (D) All options are true

35. 1.12 L N_2 gas is equal to how many N_2 molecules ? [Avogadro number = 6.02×10^{23}]
 (A) $[3.01 \times 10^{22}]$ (B) $[3.01 \times 10^{21}]$ (C) $[12.04 \times 10^{22}]$ (D) $[12.04 \times 10^{21}]$
36. 40% oxygen is present in [Atomic weight : Mg = 24, Na = 23, O = 16, Zn = 65, N = 14]
 (A) ZnO (B) Na_2O (C) MgO (D) N_2O
37. Percentage of oxygen in H_2SO_4 is [S = 32, O = 16, H = 1]
 (A) 68.5% (B) 65.3% (C) 62.3% (D) 67.4%
38. 200 ml 1 M HCl solution is added to 300 ml 0.2 M HCl solution. The final concentration of the solution will be
 (A) 0.45 M (B) 0.65 M (C) 0.78 M (D) 0.52 M
39. Which of the following option is true when 40 gm $CaCO_3$ reacts with 25 gm HCl by following the given equation $CaCO_3 + 2HCl \rightarrow CaCl_2 + CO_2 + H_2O$ [(MW) $_{CaCO_3} = 100$ & (MW) $_{HCl} = 36$]
 (A) $CaCO_3$ is limiting reagent & HCl is excess reagent
 (B) HCl is limiting reagent & $CaCO_3$ is excess reagent
 (C) Both $CaCO_3$ and HCl are limiting reagents
 (D) Both $CaCO_3$ and HCl are excess reagents
40. What is the correct information about the products when 1.22 gm $KClO_3$ is strongly heated?
 $2KClO_3 \rightarrow 2KCl + 3O_2$ [Atomic weight : K = 39, Cl = 36, O = 16]
 (A) 0.168 L O_2 at STP & 0.74 gm KCl (B) 0.335 L O_2 at STP & 0.74 gm KCl
 (C) 0.168 L O_2 at STP & 0.37 gm KCl (D) 0.335 L O_2 at STP & 0.37 gm KCl
41. Consider the reaction $N_2 + 3H_2 \rightarrow 2NH_3$. What mass of NH_3 will be produced when 5.6 gm N_2 gas reacts completely with H_2 ? [N = 14, H = 1]
 (A) 11.4 gm (B) 10.2 gm (C) 6.8 gm (D) 17.4 gm
42. The correct option about 1 gm $CaCO_3$ (MW = 100) is
 (A) 3.01×10^{22} $CaCO_3$ molecules (B) 6.02×10^{21} $CaCO_3$ molecules
 (C) 0.1 mole $CaCO_3$ molecules (D) 3.01×10^{21} $CaCO_3$ molecules
43. What is the number of atoms in 20 gm $CaCO_3$ (MW = 100) Avogadro number = 6.02×10^{23} ?
 (A) 6.02×10^{21} (B) 6.02×10^{22} (C) 6.02×10^{23} (D) 6.02×10^{20}
44. A container has 3.01×10^{22} dry and pure oxygen gas. 560 ml of pure and dry hydrogen gas is introduced inside that container. If they are not reacting with each other then what is the final number of moles of gas in that container?
 (A) 0.65 mole (B) 0.065 mole (C) 0.75 mole (D) 0.075 mole

[7]

45. Which of the following represents the highest number of mole value
[Cl = 35.5, N = 14, O = 16, Avagadro number = 6.02×10^{23}]?
(A) 0.355 gm Cl₂ (B) 1.204×10^{23} O₂ molecules
(C) 0.112 L N₂ gas at STP (D) (a), (b), (c) all are equal values
46. 2 gm N₂ reacts with 2 gm H₂ and forming NH₃ according to the equation
 $N_2 + 3H_2 \rightarrow 2NH_3$ Atomic weight : N = 14, H = 1
(A) N₂ is limiting reagent and H₂ is excess reagent
(B) N₂ is excess reagent and H₂ is limiting reagent
(C) Both N₂ and H₂ are limiting reagents
(D) Both N₂ and H₂ are excess reagents
47. 1.7 gm NH₃ reacts with 4 gm O₂ according to the reaction $4NH_3 + 5O_2 \rightarrow 4NO + 6H_2O$
Atomic weight : N = 14, H = 1, O = 16
Correct statements are
(I) NH₃ is limiting reagent (II) O₂ is excess reagent (III) 3 gm NO is formed
(A) I, II, III (B) I, II (C) II, III (D) I, III
48. 25 ml water is evaporated from 200 ml 0.2 N NaOH solution. What is the final concentration of the solution ?
(A) 0.212 N (B) 0.228 N (C) 0.254 N (D) 0.208 N
49. A solution is formed by adding 0.3 gm urea (molar mass = 60) in 500 ml water and final volume is made 1250 ml. What is the final concentration of the solution ?
(A) 0.004 M (B) 0.008 M (C) 0.002 M (D) 0.016 M
50. Consider the given equation $Na_2CO_3 + 2HCl \rightarrow 2NaCl + CO_2 + H_2O$
Correct products are when 0.53 gm Na₂CO₃ is reacting completely
[atomic weight : Na = 23, C = 12, O = 16, Avogadro number = 6.02×10^{23}]
(A) 0.56 L CO₂ at STP and 6.02×10^{21} water molecules
(B) 0.224 L CO₂ at STP and 3.01×10^{21} water molecules
(C) 0.112 L CO₂ at STP and 3.01×10^{21} water molecules
(D) 0.112 L CO₂ at STP and 6.02×10^{21} water molecules

51. If $\frac{x}{\cos\theta} = \frac{y}{\cos\left(\theta + \frac{2\pi}{3}\right)} = \frac{z}{\cos\left(\theta - \frac{2\pi}{3}\right)}$, then $x + y + z$ is equal to
 (A) -1 (B) 1 (C) 0 (D) None of these
52. If $\sin\theta_1 + \sin\theta_2 + \sin\theta_3 = 3$ then $\cos\theta_1 + \cos\theta_2 + \cos\theta_3$ is equal to
 (A) 3 (B) 2 (C) 1 (D) 0
53. If $\sin A + \sin B = a$ and $\cos A + \cos B = b$, then $\cos(A + B)$ is equal to
 (A) $\frac{a^2 + b^2}{b^2 - a^2}$ (B) $\frac{2ab}{a^2 + b^2}$ (C) $\frac{b^2 - a^2}{a^2 + b^2}$ (D) $\frac{a^2 - b^2}{a^2 + b^2}$
54. The expression $3\left[\sin^4\left(\frac{3\pi}{2} - \alpha\right) + \sin^4(3\pi + \alpha)\right] - 2\left[\sin^6\left(\frac{\pi}{2} + \alpha\right) + \sin^6(5\pi - \alpha)\right]$ is equal to
 (A) 0 (B) 1 (C) 3 (D) $\sin 4\alpha + \cos 6\alpha$
55. $3(\sin x - \cos x)^4 + 6(\sin x + \cos x)^2 + 4(\sin^6 x + \cos^6 x)$ is equal to
 (A) 11 (B) 12 (C) 13 (D) 14
56. If $y = (1 + \tan A)(1 - \tan B)$ where $A - B = \frac{\pi}{4}$, then $(y + 1)^{y+1}$ is equal to
 (A) 9 (B) 4 (C) 27 (D) 81
57. If $\sin x + \sin^2 x = 1$, then the value of $\cos^{12} x + 3 \cos^{10} x + 3 \cos^8 x + \cos^6 x - 2$ is equal to
 (A) 0 (B) 1 (C) -1 (D) 2
58. Value of expression $\sin^2 \frac{\pi}{6} + \cos^2 \frac{\pi}{4} - \sec \frac{\pi}{3}$ is
 (A) $\frac{5}{4}$ (B) $\frac{11}{4}$ (C) $-\frac{5}{4}$ (D) -1
59. $\frac{1}{\sec\alpha - \tan\alpha} + \frac{1}{\sec\alpha + \tan\alpha} =$
 (A) $2 \tan \alpha$ (B) $2 \sec \alpha$ (C) $2 \sin \alpha$ (D) $2 \cos \alpha$
60. If $a \cos \theta + b \sin \theta = 3$ and $a \sin \theta - b \cos \theta = 4$, then value of $a^2 + b^2$ is
 (A) 25 (B) 14 (C) 7 (D) 50
61. If $\operatorname{cosec} A + \cot A = \frac{11}{2}$, then $\tan A$ is equal to
 (A) $\frac{21}{22}$ (B) $\frac{15}{16}$ (C) $\frac{44}{117}$ (D) $\frac{117}{43}$

62. If $\tan \alpha + \cot \alpha = a$, then the value of $\tan^4 \alpha + \cot^4 \alpha$ is equal to
 (A) $a^4 + 4a^2 + 2$ (B) $a^4 - 4a^2 + 2$ (C) $a^4 - 4a^2 - 2$ (D) $a^4 + 4a^2 - 2$
63. If $\cos A = -\frac{5}{13}$ and A is not in third quadrant, then value of $\sin A - \tan A$ is
 (A) $-\frac{96}{65}$ (B) $\frac{96}{65}$ (C) $-\frac{216}{65}$ (D) $\frac{216}{65}$
64. $\cos(540^\circ - \theta) - \sin(630^\circ - \theta)$ is equal to
 (A) 0 (B) $2 \cos \theta$ (C) $2 \sin \theta$ (D) $\sin \theta - \cos \theta$
65. Value of $\frac{\sin 13^\circ \cos 47^\circ + \cos 13^\circ \sin 47^\circ}{\cos 72^\circ \cos 12^\circ + \sin 72^\circ \sin 12^\circ}$
 (A) 1 (B) 0 (C) $\frac{1}{\sqrt{3}}$ (D) $\sqrt{3}$
66. If the sum of the roots of the equation $x^2 - (k+6)x + 2(2k-1) = 0$ is equal to half of their product, then $k =$
 (A) 6 (B) 7 (C) 5 (D) 1
67. The quadratic equation where one root is $3+2\sqrt{3}$ is
 (A) $x^2 - 6x - 3 = 0$ (B) $x^2 + 6x - 3 = 0$ (C) $x^2 + 6x + 3 = 0$ (D) $x^2 - 6x + 3 = 0$
68. If $n(A \times B) = 45$, then $n(A)$ cannot be
 (A) 15 (B) 17 (C) 5 (D) 9
69. Let R be a relation from a set A to a set B , then
 (A) $R = A \cup B$ (B) $R = A \cap B$ (C) $R \subseteq A \times B$ (D) $R \subseteq B \times A$
70. If $f(x) = x^3 - (1/x^3)$, then $f(x) + f(1/x)$ is equal to
 (A) $2x^3$ (B) $2/x^3$ (C) 0 (D) 1
71. Let $x = \sin 1^\circ$, then the value of the expression
 $\frac{1}{\cos 0^\circ \cdot \cos 1^\circ} + \frac{1}{\cos 1^\circ \cdot \cos 2^\circ} + \frac{1}{\cos 2^\circ \cdot \cos 3^\circ} + \dots + \frac{1}{\cos 44^\circ \cdot \cos 45^\circ}$ is equal to
 (A) x (B) $1/x$ (C) $\sqrt{2}/x$ (D) $x/\sqrt{2}$
72. If $5 \tan \theta = 4$, then $\frac{5 \sin \theta - 3 \cos \theta}{5 \sin \theta + 2 \cos \theta}$ is equal to
 (A) 0 (B) 1 (C) $1/6$ (D) 6

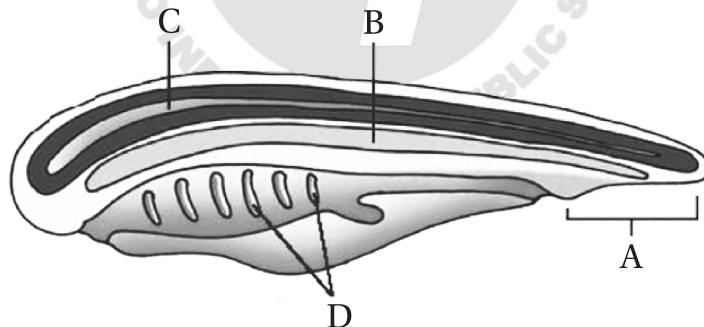
73. If $\frac{\sin(x+y)}{\sin(x-y)} = \frac{a+b}{a-b}$, then $\frac{\tan x}{\tan y}$ is equal to
 (A) $\frac{b}{a}$ (B) $\frac{a}{b}$ (C) ab (D) None of these
74. If $\tan\theta + \sin\theta = m$ and $\tan\theta - \sin\theta = n$, then
 (A) $m^2 - n^2 = 4mn$ (B) $m^2 + n^2 = 4mn$ (C) $m^2 - n^2 = m^2 + n^2$ (D) $m^2 - n^2 = 4\sqrt{mn}$
75. If $\sin x + \operatorname{cosec} x = 2$, then $\sin^n x + \operatorname{cosec}^n x$ is equal to
 (A) 2 (B) 2^n (C) 2^{n-1} (D) 2^{n-2}

Biology

76. A group of animals having marsupium is
 (A) Monotremata (B) Eutheria (C) Metatheria (D) Pantotheria
77. Which of the following is true of Aves?
 (A) They are poikilotherms and have a three chambered heart
 (B) Tiny pebbles eaten by some birds are used in crushing
 (C) They have 10 pairs of cranial nerves
 (D) All of the above
78. The study of snakes is called
 (A) Herpetology (B) Ophiology (C) Saurology (D) Ornithology
79. Connecting link between chordates and non chordates is
 (A) *Peripatus* (B) *Balanoglossus* (C) *Sphenodon* (D) *Tachyglossus*
80. Which one is not correct?
 (A) Humans-Ureotelic (B) Birds-Uricotelic
 (C) Lizards-Uricotelic (D) Whale-Ammonotelic
81. Which of the following is the generic name of an extinct ancient lizard bird?
 (A) *Archaeopteryx* (B) *Bulbulcus* (C) *Dodo* (D) None of the above
82. In echolocation, the animal that produces high frequency sounds is
 (A) Monkey (B) Butterfly (C) Squirrel (D) Bat
83. Retrogressive metamorphosis is shown by animals belonging to—
 (A) Class Mammalia (B) Subphylum Vertebrata
 (C) Subphylum Cephalochordata (D) Subphylum Urochordata

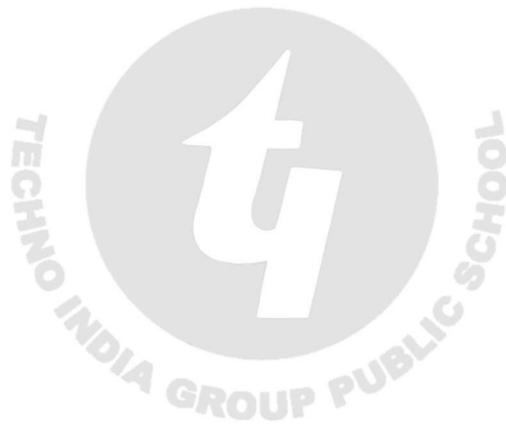
84. 'Wheel organ' of Cephalochordates help in—
 (A) Excretion (B) Osmoregulation (C) Ingestion (D) Respiration
85. Brood pouch occurs in—
 (A) Male *Hippocampus* (B) Female *Hippocampus*
 (C) Male *Arius* (D) Female *Arius*
86. Development of gonads and/or production of young ones by larval forms is called—
 (A) Retrogressive metamorphosis (B) Paedogenesis
 (C) Predaceous (D) None
87. The blood of which animal has more RBCs per cubic mm of blood than in any other animal?
 (A) Man (B) Amphibians (C) Snakes (D) Birds
88. Pecten of birds help in _____ of eyeball.
 (A) Cleaning (B) Nutrition
 (C) Hydration (D) Maintenance of shape
89. Name the teeth of elephants which constantly grow throughout life.
 (A) Incisors (B) Canines (C) Both (A) and (B) (D) Molars
90. Choose the correct statement—
 (A) *Panthera leo* is the National Animal of India
 (B) Marsupials are found mainly in Africa
 (C) Seals have dense hair on body for heat insulation
 (D) Retina of owls contain only rods
91. Which one is called a living fossil?
 (A) *Ginkgo* (B) *Cycas* (C) *Metasequoia* (D) All of the above
92. Which of the following are called vascular cryptogams?
 (A) Pteridophytes (B) Bryophytes (C) Gymnosperms (D) Algae
93. A binomial nomenclature consists of—
 (A) Generic name and Phyla (B) Class and Phyla
 (C) Generic name and specific epithet (D) Phyla and Kingdom
94. Mushrooms belong to—
 (A) Phycomycetes (B) Ascomycetes
 (C) Basidiomycetes (D) Deuteromycetes
95. Water vascular system is observed in—
 (A) Coelenterates (B) Nematodes (C) Echinoderms (D) Molluscs

96. What is common to Amphibia, Reptilia, Aves and Mammals?
 (A) They are all warm blooded (B) They are all viviparous
 (C) They are all tetrapods (D) They all use their forelimbs for walking
97. Why are pneumatic bones found in birds?
 (A) To give strength to the body
 (B) To help the birds lay eggs
 (C) To maintain constant body temperature
 (D) To make the body light
98. Reptiles have—
 (A) Wet and glandular skin (B) Moist and spotted skin
 (C) Feathery skin (D) Dry and cornified skin
99. Select the pair of flightless birds from the list given below:
 I. *Corvus* II. *Columba* III. *Struthio* IV. *Aptenodytes*
 (A) I and IV (B) II and III (C) I and II (D) III and IV
100. The following is a schematic diagram of a chordate's embryo. The parts labelled A, B, C and D are respectively—



- (A) A—Dorsal nerve chord
 C—Pharyngeal gill slits
 B—Notochord
 D—Post anal tail
- (B) A—Post anal tail
 C—Dorsal nerve chord
 B—Notochord
 D—Pharyngeal gill slits
- (C) A—Pharyngeal gill slits
 C—Dorsal nerve chord
 B—Notochord
 D—Post anal tail
- (D) A—Pharyngeal gill slits
 C—Post anal tail
 B—Notochord
 D—Dorsal nerve chord

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