



DIRECTORATE OF SCHOOL EDUCATION TAMILNADU

11NPCB01 (2023-24)	NEET PRACTICE QUESTIONS (TEST-1)	Class : XI Time : 1.15 hrs Total Marks : 240
-------------------------------	---	---

Answer key

11TH - Physics

1. Ans : B

$$L = h^a c^b G^c$$

$$M^2 L^1 T^0 (M^1 L^2 T^{-1})^a (L T^{-1})^b (M^{-1} L^3 T^{-2})$$

$$a = 1/2, b = -3/2, c = 1/2$$

$$L = \frac{\sqrt{hG}}{c^{3/2}}$$

2. Ans : C

$$\text{Momentum} = MLT^{-2}$$

$$\text{Plank constant} = ML^2 T^{-1}$$

3. Ans : B

$$T - 2.5C \quad \Delta T = 21S$$

$$\frac{\Delta T}{T} \times 100 = \frac{21}{2.5} \times 100 = 20\%$$

4. Ans : C

$$x - at - bt^2$$

$$x = bt^2$$

$$b = x/t^2 = \text{Km}/\text{S}^2 = \text{KmS}^{-2}$$

5. Ans : D

Dimensions of $\frac{e^2}{4\pi\epsilon_0} = F \times d^2 = ML^3T^{-2}$

$$l \propto \left(\frac{C^2}{4\pi E_0} \right)^a G^b C^c$$

$$L^1 = (ML^3T^{-2})^a (M^{-1}L^3T^{-2})^b (LT^{-1})^c$$

On solving $a = \frac{1}{2}b = \frac{1}{2}c = -2$

$$l = \frac{1}{c^2} \left[\frac{Ge^2}{4\pi E_0} \right]^{\frac{1}{2}}$$

6. **Ans : C**

$$\frac{\Delta y}{y} = \frac{2\Delta m}{m} + \frac{4\Delta r}{r} + \frac{x\Delta g}{g} + \frac{3}{2} \frac{\Delta l}{l}$$

$$18 = 2 \times 1 + 4 \times 0.5 + xp + \frac{3}{2} (4)$$

$$8 = xp$$

From option

$$x = \frac{16}{3} P = \pm \frac{3}{2}$$

7. **Ans : C**

Dimension of work and Torque ML^2T^{-2}

8. **Ans : A**

$$T = 2\pi \sqrt{\frac{l}{g}} \Rightarrow T^2 = 4\pi^2 \frac{l}{g}$$

$$g = 4\pi^2 \frac{l}{T^2}$$

$$\% \text{ Error in } l = \frac{1mm}{100cm} \times 100$$

$$= \frac{0.1}{100} \times 100 = 0.1\%$$

$$\% \text{ Error in } T = \frac{0.1}{2 \times 100} \times 100 = 0.05\%$$

$$\% \text{ Error in } g = \frac{\Delta l}{l} + \frac{2\Delta T}{T}$$

$$= 0.1\% + 2 \times 0.05\% = 0.2\%$$

9. Ans : D

$$\begin{aligned}m_2 &= n_1 \left(\frac{m_1}{m_2} \right) \left(\frac{L_1}{L_2} \right)^{-3} \\&= 4 \times \frac{1g}{100g} \left(\frac{1cm}{10cm} \right)^{-3} \\&= 4 \times \frac{1}{100} \times 10^3 = 40 \text{ units}\end{aligned}$$

10. Ans : A

$$\begin{aligned}l &= \frac{m}{v} = \frac{m}{L^3} \\&= \frac{\Delta p}{p} = \frac{\Delta m}{m} + 3 \frac{\Delta L}{L} \\&= \frac{0.1}{10} + 3 \left(\frac{0.01}{0.1} \right) \\&= 0.01 + 3 \times 0.1 \\&= 0.31 \text{ Kg/m}^3\end{aligned}$$

11. Ans : C

$$\begin{aligned}x &= k\eta^a (E_k)^6 \\L^1 &= (ML^{-1}T^{-2})^a (ML^2T^{-2})^b \\&= M^{a+b} L^{-a+2b} T^{-2a-2b} \\a + b &= 0 \quad -a + 2b = 1 \\-2a - 2b &= 0 \\a &= -\frac{1}{3} \quad b = \frac{1}{3} \\x &\propto \left(\frac{Ek}{\eta} \right)^{\frac{1}{3}}\end{aligned}$$

12. Ans : C

$$\begin{aligned}a &= Pv^2 = \frac{Fv^2}{A} \\&= \frac{MLT^{-2}(L^3)^2}{L^2} \\&= \frac{MLT^{-2} L^6}{L^2} \\&= ML^5T^{-2}\end{aligned}$$

13. Ans : B

$$F = A\sqrt{x} + Bt^2$$

Dimensionally

$$F = A\sqrt{x} + Bt^2$$

$$A/B = t^2/\sqrt{x}$$

$$T^2/L^{1/2} = T^2 L^{-1/2}$$

14. Ans : A

$$\% \text{ Error in } V = \frac{\Delta v}{v} = \frac{5}{100} \times 100\% = 5\%$$

$$\% \text{ Error in correct } I = \frac{\Delta I}{I} = \frac{0.2}{10} \times 100\% = 2\%$$

$$\% \text{ Error in resistance Calculated is } 5\% + 2\% = 7\%$$

15. Ans : D

$$\mu = \frac{\text{Velocity of light in vacuum}}{\text{Velocity of light in medium}}$$

μ - Dimension less

RHS of equation should be dimension less

B/λ^2 is dimensionless

B should have dimensionless of λ^2 i.e. $m^2 = \text{Area}$

11th - CHEMISTRY

16. Ans : B

$[R_n]^{86} 5f^{14} 6d^{10} 7s^2 7p^2$ belongs to carbon family

17. Ans : B

18. Ans : A

19. Ans : A

[Ne] 3s² 3p³ 5th group

Ionisation energy increases in a period and decreases in group.

20. Ans : D

CaO is basic oxide

B₂O₃, BeO amphoteric

SiO₂ acide

21. Ans : B

22. Ans : A

23. Ans : D

IE_{Be} > IE_B

24. Ans : C

N, O, F are electrogative elements

25. Ans : A

26. Ans : C

27. Ans : D

28. Ans : B

Outermost electronic configuration of element with atomic number 118 is 7s² 7p⁶. So it will be a noble gas.

29. Ans : B

30. Ans : B

31. **Ans: A**
Explanation:
Influenza virus and wound tumour virus the nucleic acid is present in segments.
32. **Ans: B**
33. **Ans: C**
34. **Ans : A**
In 1928 the bacteriologist Ferderick Griffith demonstrated transformation in Mic using diplococcus pneumonia.
35. **Ans: D**
36. **Ans: A**
37. **Ans: C**
38. **Ans: A**
39. **Ans: C**
40. **Ans: A**
Virus have either DNA or RNA as a genetic material and protein coat.
41. **Ans: B**
Viroids are free RNA particles without protein coat.
42. **Ans: B**
Monera includes bacteria, mycoplasma cyanobacteria and actinomycetes.
43. **Ans: D**
44. **Ans: C**
Cauliflower mosaic virus contain dsDNA. It is circular and shows semi discontinuous type of replication.
45. **Ans: A**

Euglena possesses the characteristics of both plants and animal. It has chlorophyll thus it is autotrophic like plants. In contrast to this it has flagellated locomotion like animals.

11th - ZOOLOGY

46. A) Class - Order - Family - Genus - Species
47. A) will decrease
48. D) Both Assertion and Reason are false
49. B) A-2, B-3, C-1, D-4
50. B) Mode of reproduction
51. D) Species
52. C) I, IV and V
53. A) Mayr
54. B) Only II
55. B) Archaeobacteria
56. B) e - taxonomic tool
57. B) Evolutionary and phylogenetic
58. D) Inter specific hybridization
59. B) Artificial system
60. A) Responsiveness to touch