VERY SIMILAR PRACTICE TEST 10

Time : 3 hrs. Max. Marks : 300

PHYSICS

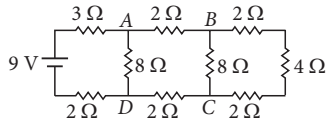
1. In the expression for torque $\tau = a \times L + b \times I/\omega$, L represents angular momentum, I is moment of inertia and ω is angular velocity. The dimensions of $a \times b$ are
(a) $[M^0 L^0 T^{-4}]$ (b) $[M^0 L^0 T^{-2}]$
(c) $[M^0 L^0 T^{-1}]$ (d) $[M^0 L^0 T^{-3}]$

2. The electric field in a region is radially outward with magnitude $E = Ar$. What will be the charge contained in a sphere of radius a centred at the origin? Take $A = 100$ V m^{-2} and $a = 20.0$ cm.
(a) 8.89×10^{-11} C (b) 4.47×10^{-11} C
(c) 8.89×10^{-9} C (d) 4.47×10^{-9} C

3. Water drops fall at regular intervals from a tap which is 5.0 m above the ground. The third drop is leaving the tap at the instant the first drop reaches the ground. How far above the ground is the second drop at that instant?
(a) 1.25 m (b) 2.50 m
(c) 3.75 m (d) 5.00 m

4. A spring balance has a scale that reads from 0 to 60 kg. The length of the scale is 30 cm. A body suspended from this balance and when displaced and released, oscillates with a period of 0.8 s, what is the weight of the body when oscillating?
(a) 350.67 N (b) 540.11 N
(c) 311.64 N (d) 300.5 N

5. Refer to the circuit shown in the figure.



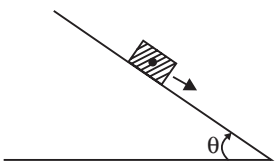
The current through the
(a) 3 Ω resistor is 0.50 A
(b) 3 Ω resistor is 0.25 A
(c) 4 Ω resistor is 0.50 A
(d) 4 Ω resistor is 0.25 A.

6. A block of mass $m = 1$ kg moving on a horizontal surface with speed $v_i = 2$ m s^{-1} enters a rough patch ranging from $x = 0.10$ m to $x = 2.01$ m. The retarding force F_r on the block in this range is inversely proportional to x over this range,

$$F_r = -\frac{k}{x} \text{ for } 0.1 < x < 2.01 \text{ m}$$

$= 0$ for $x < 0.1$ m and $x > 2.01$ m
where $k = 0.5$ J. What is the final kinetic energy of the block as it crosses this patch?
(a) 0.5 J (b) 1.5 J (c) 2.0 J (d) 2.5 J

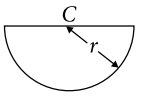
7. A plank with a box on it at one end is gradually raised about the other end. As the angle of inclination with the horizontal reaches 30°, the box starts to slip and slides 4.0 m down the plank in 4.0 s. The coefficients of static and kinetic friction between the box and the plank will be, respectively
(Take $g = 10$ m s^{-2})



(a) 0.5 and 0.6 (b) 0.4 and 0.3
(c) 0.6 and 0.6 (d) 0.6 and 0.5.

8. A vibration magnetometer placed in magnetic meridian has a small bar magnet. The magnet executes oscillations with a time period of 2 s in earth's horizontal magnetic field of 24 μT. When a horizontal field of 18 μT is produced opposite to the earth's field by placing a current carrying wire, the new time period of the magnet will be
(a) 1 s (b) 2 s
(c) 3 s (d) 4 s.

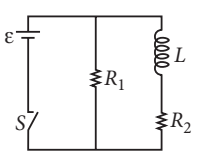
9. A semicircular lamina of mass m, radius r and centre at C is shown in the figure. Its centre of mass is at a distance x from C. Its moment of inertia about an axis through its centre of mass and perpendicular to its plane is



(a) $\frac{1}{2}mr^2$ (b) $\frac{1}{4}mr^2$

(c) $\frac{1}{2}mr^2 + mx^2$ (d) $\frac{1}{2}mr^2 - mx^2$

10. An inductor of inductance $L = 400$ mH and resistors of resistances $R_1 = 2\ \Omega$ and $R_2 = 2\ \Omega$ are connected to a battery of emf 12 V as shown in figure. The internal resistance of the battery is negligible. The switch S is closed at $t = 0$. The potential drop across L as a function of time is



(a) $6e^{-5t}$ V (b) $\frac{12}{t}e^{-3t}$ V

(c) $6(1 - e^{-t/0.2})$ V (d) $12e^{-5t}$ V

11. The instantaneous values of alternating current and voltage in a circuit are given as

$I = \frac{1}{\sqrt{2}}\sin(100\pi t)$ A and

$\varepsilon = \frac{1}{\sqrt{2}}\sin(100\pi t + \pi/3)$ V

The average power in watts consumed in the circuit is

(a) $\frac{1}{4}$ (b) $\frac{\sqrt{3}}{4}$ (c) $\frac{1}{2}$ (d) $\frac{1}{8}$

12. An electromagnetic wave of frequency 3 MHz passes from vacuum into a dielectric medium with permittivity $\varepsilon_r = 4$. Then

(a) the wavelength and frequency both remain unchanged

(b) the wavelength is doubled and the frequency remains unchanged

(c) the wavelength is doubled and the frequency becomes half

(d) the wavelength is halved and the frequency remains unchanged.

13. A particle of mass M is situated at the centre of a spherical shell of same mass and radius a. The gravitational potential at a point situated at distance $\frac{a}{2}$ from the centre, will be

(a) $-\frac{3GM}{a}$ (b) $-\frac{2GM}{a}$

(c) $-\frac{GM}{a}$ (d) $-\frac{4GM}{a}$

14. In Young's double slit experiment, first slit has width four times the width of the second slit. The ratio of the maximum intensity to the minimum intensity in the interference fringe system is

(a) 2 : 1 (b) 4 : 1 (c) 9 : 1 (d) 8 : 1

15. In a compound microscope, the focal lengths of two lenses are 1.5 cm and 6.25 cm. If an object is placed at 2 cm from objective and the final image is formed at 25 cm from eye lens, the distance between the two lenses is

(a) 6.00 cm (b) 7.75 cm

(c) 9.25 cm (d) 11.0 cm

16. In a hydrogen atom, an electron jumps from the state n to $n - 1$ where $n >> 1$. The frequency of the emitted radiation is proportional to

(a) n^0 (b) n^{-1} (c) n^{-2} (d) n^{-3}.

17. A carrier frequency of 1 MHz and peak value of 10 V is amplitude modulated with a signal frequency of 10 kHz with peak value of 0.5 V. Then the modulation index and the side band frequencies respectively are

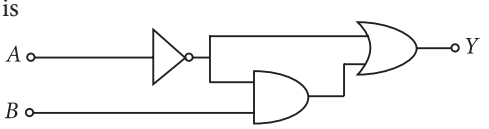
(a) 0.05 and 1 ± 0.010 MHz

(b) 0.5 and 1 ± 0.010 MHz

(c) 0.05 and 1 ± 0.005 MHz

(d) 0.5 and 1 ± 0.005 MHz

18. The output Y of the logic circuit given below is



(a) $\bar{A} + B$ (b) $\bar{A}$

(c) $\overline{(\bar{A} + B)} \cdot \bar{A}$ (d) $\overline{(\bar{A} + B)} \cdot A$

19. A thin copper wire of length L increases its length by 1% when heated from temperature T_1 to T_2. What is the percentage change in area when a thin copper plate having dimensions $2L \times L$ is heated from T_1 to T_2?

(a) 0.5% (b) 1% (c) 2% (d) 4%

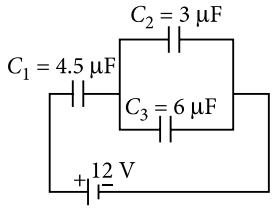
20. According to equipartition law of energy each particle in a system of particles have thermal energy E equal to

(a) k_BT (b) $\frac{1}{2}k_BT$

(c) $3k_BT$ (d) $\frac{3}{2}k_BT$

NUMERICAL VALUE TYPE

21. The potential difference across the 4.5 μF capacitor is _____ V.



22. A boat of 90 kg is floating in still water. A boy of mass 30 kg walks from the stern to the bow. The length of the boat is 3 m. The distance moved by the boat is _____ m.

23. Two soap bubbles *A* and *B* are kept in a closed chamber where the air is maintained at pressure a of 8 N m^{-2}. The radii of bubbles *A* and *B* are 2 cm and 4 cm respectively. Surface tension of soap water used to make bubbles is 0.04 N m^{-1}. If n_A and n_B are the number of moles of air in bubbles *A* and *B* respectively. Then the value of $\frac{n_B}{n_A}$ is _____. (Neglect effect of gravity).

24. An electric drill of output 0.2 hp is used to drill a hole in 100 g of iron. It takes 20 s to drill the hole. Assuming that all the energy spent is absorbed by the iron, its rise in temperature is _____ °C.
(Given specific heat of iron = 450 J kg^{-1} $°C^{-1}$).

25. Monochromatic radiation of wavelength 640.2 nm from a neon lamp irradiates photosensitive material made of cesium. The stopping voltage is measured to be 0.54 V. The source is replaced by another source of wavelength 427.2 nm which irradiates the same photocell. The new stopping voltage is _____ V.

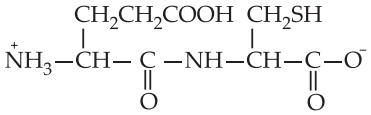
CHEMISTRY

26. Anhydrous $AlCl_3$ is covalent. From the data given below, predict whether it would remain covalent or become ionic in aqueous solution (ionisation energy of Al = 5137 kJ mol^{-1}, $\Delta H_{Hydration}$ for Al^{3+} = –4665 kJ mol^{-1}, $\Delta H_{hydration}$ for Cl^- = –381 kJ mol^{-1})
(a) Ionic (b) Covalent
(c) Both (d) None of these

27. If the radius of first orbit of H-atom is a_0, then de-Broglie wavelength of electron in 4th orbit is
(a) $2\pi a_0$ (b) $16a_0$
(c) $a_0/4$ (d) $8\pi a_0$

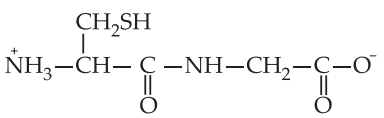
28. Compound that retards the decomposition of H_2O_2 solution is
(a) NH_2CONH_2 (b) $Na_6P_6O_{18}$
(c) $LiAlH_4$ (d) $K_2S_2O_8$

29. A tripeptide (*X*) on partial hydrolysis gave two dipeptides *Cys-Gly* and *Glu-Cys*, *i.e.*,



Glu-Cys

and



Cys-Gly

Identify the tripeptide.
(a) *Glu-Cys-Gly* (b) *Gly-Glu-Cys*
(c) *Cys-Gly-Glu* (d) *Cys-Glu-Gly*

30. The dispersed phase in colloidal iron(III) hydroxide and colloidal gold is positively and negatively charged respectively. Which of the following is not correct?
(a) Magnesium chloride solution coagulates the gold sol more readily than iron(III) hydroxide sol.
(b) Sodium sulphate solution causes coagulation in both sols.
(c) Mixing of the sols has no effect.
(d) Coagulation in both sols can be brought about by electrophoresis.

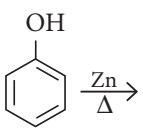
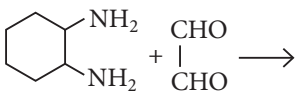
31. Which of the following statements is not correct?
(a) The oxidation number of S in $(NH_4)_2S_2O_8$ is +6.
(b) The oxidation number of Os in OsO_4 is + 8.
(c) The oxidation number of S in H_2SO_5 is + 8.
(d) The oxidation number of O in KO_2 is –1/2.

32. For the reaction $X + Y \longrightarrow P$, the rate law is expressed as rate = $k[X][Y]^2$. Which of the following statements will be false for the reaction?
(a) If $[Y]$ is held constant and $[X]$ is doubled, reaction rate will be doubled.
(b) If $[X]$ is held constant and $[Y]$ is reduced to one-fourth, the rate of reaction will be halved.
(c) If $[X]$ and $[Y]$ both are doubled, the rate of reaction will be increased by 8 times.
(d) This reaction is of third order.

33. Cerium (Z = 58) is an important member of the lanthanides. Which of the following statements about cerium is incorrect?
(a) The common oxidation states of cerium are + 3 and + 4.
(b) The + 3 oxidation state of cerium is more stable than the + 4 oxidation state.
(c) The + 4 oxidation state of cerium is not known in solutions.
(d) Cerium (IV) acts as an oxidising agent.

34. Consider the following metallurgical process :
Metal sulphide $\xrightarrow{x}$ Metal oxide $\xrightarrow{y}$ Impure metal $\xrightarrow{z}$ Pure metal
x, y and z are respectively
(a) roasting, smelting, electrolysis
(b) roasting, calcination, smelting
(c) calcination, auto-reduction, bassemerisation
(d) none of the above.

35. Which one of the following alkaline earth metal sulphates has its hydration enthalpy greater than its lattice enthalpy?
(a) $BaSO_4$ (b) $SrSO_4$
(c) $CaSO_4$ (d) $BeSO_4$

36. Which of the following will not produce aromatic product?
(a) $Me-C\equiv CH \xrightarrow[\text{Fe tube}]{\text{Red hot}}$
(b) $C_6H_{14} \xrightarrow[Cr_2O_3, \Delta]{Al_2O_3}$
(c) 
(d) 

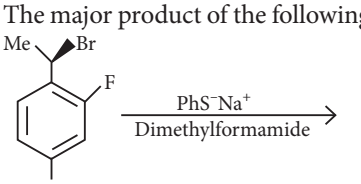
37. The thermal stability of the hydrides of O, S, Se and Te varies in the order
(a) $H_2Te > H_2Se > H_2S > H_2O$
(b) $H_2O > H_2S > H_2Se > H_2Te$
(c) $H_2O > H_2Se > H_2Te > H_2S$
(d) $H_2S > H_2O > H_2Se > H_2Te$

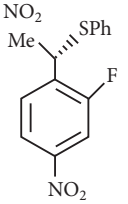
38. In the reaction,
$2Al_{(s)} + 6HCl_{(aq)} \rightarrow 2Al^{3+}_{(aq)} + 6Cl^-_{(aq)} + 3H_{2(g)}$
(a) 112 L $H_{2(g)}$ at STP is produced for every mole $HCl_{(aq)}$ consumed
(b) 6 L $HCl_{(aq)}$ is consumed for every 2 L $H_{2(g)}$ produced
(c) 33.6 L $H_{2(g)}$ is produced regardless of temperature and pressure for every mole Al that reacts
(d) 67.2 L $H_{2(g)}$ at STP is produced for every mole Al that reacts.

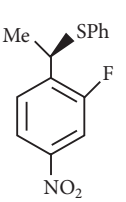
39. Four diatomic species are listed below. Identify the correct order in which the bond order is increasing in them.
(a) $NO < O_2^- < C_2^{2-} < He_2^+$
(b) $O_2^- < NO < C_2^{2-} < He_2^+$
(c) $C_2^{2-} < He_2^+ < O_2^- < NO$
(d) $He_2^+ < O_2^- < NO < C_2^{2-}$

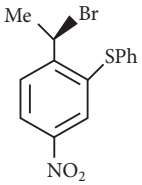
40. Which of the following leads to the formation of methyl *t*-butyl ether?
(a) $(C_2H_5)_3CONa + CH_3Cl$
(b) $CH_3ONa + (CH_3)_3CCl$
(c) $(CH_3)_3CONa + C_2H_5Cl$
(d) $(CH_3)_3CONa + CH_3Cl$

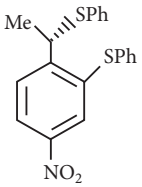
41. In a normal spinel type structure, the oxide ions are arranged in *ccp*, whereas, 1/8 tetrahedral holes are occupied by Zn^{2+} ions and 50% of octahedral holes are occupied by Fe^{3+} ions. The formula of the compound is
(a) $Zn_2Fe_2O_4$ (b) $ZnFe_2O_3$
(c) $ZnFe_2O_4$ (d) $ZnFe_2O_2$

42. The major product of the following reaction is


(a) 

(b) 

(c) 

(d) 

43. Which one of the following statements regarding photochemical smog is not correct?
(a) Photochemical smog is formed during winter season in early morning hours.
(b) Photochemical smog is also called Los Angeles smog.
(c) Photochemical smog is characterized by brown haze of irritating nature.
(d) Photochemical smog is oxidising in nature.

44. Consider the following four electrodes :
$P = Cu^{2+}$ (0.0001 M)/$Cu_{(s)}$
$Q = Cu^{2+}$ (0.1 M)/$Cu_{(s)}$
$R = Cu^{2+}$ (0.01 M)/$Cu_{(s)}$
$S = Cu^{2+}$ (0.001 M)/$Cu_{(s)}$
If the standard reduction potential of Cu^{2+}/Cu is +0.34 V, the reduction potentials in volts of the above electrodes follow the order
(a) $P > S > R > Q$
(b) $S > R > Q > P$
(c) $R > S > Q > P$
(d) $Q > R > S > P$

45. The main product formed when benzaldehyde is treated with one mole of acetone in the presence of aqueous alkali is
(a) $C_6H_5CH{=}CHCHO$
(b) $(CH_3)_2C{=}CHCOCH_3$
(c) $C_6H_5CH{=}CHCOCH_3$
(d) $C_6H_5CH(OH)CH_2CHO$

NUMERICAL VALUE TYPE

46. Among the following the number of paramagnetic as well as coloured species is _____.
O_2, NO_2, Cu^{2+}, Hg_2^{2+}, Fe^{2+}, Fe^{3+}, $[Fe(CN)_6]^{4-}$, $[Fe(CN)_6]^{3-}$, $[Ni(H_2O)_6]^{2+}$, $[Ni(CN)_4]^{2-}$

47. Amongst the following, the total number of groups showing – *I* effect is _____.
—Cl, —NO_2, —CH_3, —CN, —COO*R*, —OC_6H_5

48. A decimolar solution of potassium ferrocyanide, $K_4[Fe(CN)_6]$ is 50% dissociated at 300 K. The osmotic pressure (in atm) of the solution is _____.

49. The electronegativity of carbon if E_{H-H} = 104.2 kcal mol^{-1}, E_{C-C} = 83.1 kcal mol^{-1}, E_{C-H} = 98.8 kcal mol^{-1}, χ_H = 2.1 is _____.

50. 0.1 mole of CH_3NH_2 ($K_b = 5 \times 10^{-4}$) is mixed with 0.08 mole of HCl and diluted to one litre. The H^+ concentration in the solution is $x \times 10^{-11}$. The value of x is _____.

MATHEMATICS

51. For any two sets A and B, $A - (A - B)$ equals
(a) B (b) $A - B$
(c) $A \cap B$ (d) $A^c \cap B^c$

52. The number of complex number z satisfying $|z - 3 - i| = |z - 9 - i|$ and $|z - 3 + 3i| = 3$ are
(a) one (b) two
(c) four (d) none of these

53. If a system of the equation
$(\alpha + 1)^3 x + (\alpha + 2)^3 y - (\alpha + 3)^3 z = 0$,
$(\alpha + 1)x + (\alpha + 2)y - (\alpha + 3)z = 0$ and
$x + y - z = 0$ has infinitely many solutions, then what is the value of α?
(a) 1 (b) 0 (c) –3 (d) –2

54. If the standard deviation of the observations –5, –4, –3, –2, –1, 0, 1, 2, 3, 4, 5 is $\sqrt{10}$. The standard deviation of observations 15, 16, 17,18, 19, 20, 21, 22, 23, 24, 25 will be
(a) $\sqrt{10} + 20$ (b) $\sqrt{10} + 10$
(c) $\sqrt{10}$ (d) none of these

55. $\lim_{x \to 0} \left(\tan\left(\frac{\pi}{4} + x \right) \right)^{1/x} =$
(a) 1 (b) e
(c) e^2 (d) $\sqrt{e}$

56. If $x = \sec\phi - \tan\phi$ and $y = \operatorname{cosec}\phi + \cot\phi$, then
(a) $x = \frac{y+1}{y-1}$ (b) $x = \frac{1-y}{y+1}$
(c) $y = \frac{1-x}{1+x}$ (d) $xy + x - y + 1 = 0$

57. $\int_0^{\pi/2} \frac{2\sqrt{\cos\theta}}{3(\sqrt{\sin\theta}+\sqrt{\cos\theta})}d\theta =$

(a) $\pi/2$ (b) $\pi/6$
(c) $\pi/3$ (d) $\pi/4$

58. The angle between the pair of lines

$$(x^2+y^2)\left(\frac{\cos^2\theta}{4}+\sin^2\theta\right)=\left(\frac{x}{\sqrt{3}}-y\sin\theta\right)^2$$

is

(a) $\pi/6$ (b) $\pi/4$
(c) $\pi/3$ (d) 2θ

59. The greatest coefficient in the expansion of $(1+x)^{2n+1}$ is

(a) $\frac{(2n+1)!}{n!(n+1)!}$ (b) $\frac{(2n+2)!}{n!(n+1)!}$

(c) $\frac{(2n+1)!}{[(n+1)!]^2}$ (d) $\frac{(2n)!}{(n!)^2}$

60. The distance of the point (1, –2, 3) from the plane $x - y + z = 5$ measured parallel to the line $\frac{x}{2}=\frac{y}{3}=\frac{z-1}{-6}$ is

(a) 1 (b) 2
(c) 4 (d) none of these

61. If $\frac{dy}{dx} = \cos(x+y)$, $y\left(\frac{\pi}{2}\right) = 0$ then $y(0) =$

(a) $\tan^{-1}\left(\frac{\pi}{2}-1\right)$ (b) $\tan^{-1}\left(\frac{\pi}{2}+1\right)$

(c) $2\tan^{-1}\left(\frac{\pi}{2}-1\right)$ (d) $-2\tan^{-1}\left(\frac{\pi}{2}-1\right)$

62. If $\tan x=\frac{3}{4}, \pi<x<\frac{3\pi}{2}$, then the value of $\cos\frac{x}{2}$ is

(a) $-\frac{1}{\sqrt{10}}$ (b) $\frac{3}{\sqrt{10}}$

(c) $\frac{1}{\sqrt{10}}$ (d) $-\frac{3}{\sqrt{10}}$

63. If $f(x)=\frac{x-e^x+\cos 2x}{x^2}, x\neq 0$ is continuous at $x = 0$, then

(a) $f(0)=\frac{5}{2}$ (b) $[f(0)] = -2$
(c) $\{f(0)\} = -0.5$ (d) $[f(0)]\cdot\{f(0)\} = -1.5$

where $[x]$ and $\{x\}$ denotes greatest integer and fractional part function respectively.

64. The equation of the circles touching the line $x + 2y = 0$ and passing through the points of intersection of the circle $x^2 + y^2 = 4$ and $x^2 + y^2 - 2x - 4y + 4 = 0$ is

(a) $x^2+y^2+x+2y=0$
(b) $x^2+y^2-x+2y=0$
(c) $x^2+y^2+x-2y=0$
(d) $x^2+y^2-x-2y=0$.

65. In order that the matrix $\begin{bmatrix}1&2&3\\4&5&6\\3&\lambda&5\end{bmatrix}$ be non-singular, λ should not be equal to

(a) 1 (b) 2 (c) 3 (d) 4

66. Let $P(n) = n(n+1)$ is an even number, then which of the following is true?

(a) $P(3)$ (b) $P(100)$
(c) $P(50)$ (d) all of these

67. If the first, second and last terms of an A.P. be $a, b, 2a$ respectively, then its sum will be

(a) $\frac{ab}{b-a}$ (b) $\frac{ab}{2(b-a)}$

(c) $\frac{3ab}{2(b-a)}$ (d) $\frac{3ab}{4(b-a)}$

68. $\lim_{x\to\frac{\pi}{4}} \frac{\int_2^{\sec^2 x} f(t)dt}{x^2-\frac{\pi^2}{16}}$ equals

(a) $\frac{8}{\pi}f(2)$ (b) $\frac{2}{\pi}f(2)$

(c) $\frac{2}{\pi}f\left(\frac{1}{2}\right)$ (d) $4f(2)$

69. If α and β are the roots of $6x^2 - 6x + 1 = 0$, then the value of

$$\frac{1}{2}[a+b\alpha+c\alpha^2+d\alpha^3]+\frac{1}{2}[a+b\beta+c\beta^2+d\beta^3] \text{ is}$$

(a) $\frac{1}{4}(a+b+c+d)$ (b) $a+\frac{b}{2}+\frac{c}{3}+\frac{d}{4}$

(c) $\frac{a}{2}-\frac{b}{2}+\frac{c}{3}-\frac{d}{4}$ (d) none of these

70. If the function $f(x) = 2x^3 - 9ax^2 + 12a^2 x + 1$, $a > 0$ and $f(x)$ is max. and min. at p and q respectively such that $p^2 = q$ then $a =$

(a) $2p$ (b) q

(c) 2 (d) p

NUMERICAL VALUE TYPE

71. If ${}^{16}C_r = {}^{16}C_{r+2}$ then the value of ${}^{r}P_{r-3}$ is _____ .

72. If the line through the points (–2, 6, 4) and (1, 3, 7) meets the plane $x = 0$ at A and the plane $y = 0$ at B, then AB is equal to _____ .

73. The probability that Ram will alive 30 years hence is $\frac{7}{11}$ and Shyam will be alive is $\frac{7}{10}$. What is the probability that both Ram and Shyam will be dead 30 years hence?

74. If the 9^{th} term of an A.P. is 35 and 19^{th} is 75, then its 20^{th} terms will be _____ .

75. The number of distinct real values of λ, for which the vectors $-\lambda^2\hat{i}+\hat{j}+\hat{k}$, $\hat{i}-\lambda^2\hat{j}+\hat{k}$ and $\hat{i}+\hat{j}-\lambda^2\hat{k}$ are coplanar, is _____ .

Practice Test-10

- Use Blue/Black ball point pen only for marking responses.
- Mark only one choice for each question as indicated.

Correct marking ● ⓑ ⓒ ⓓ

Wrong marking ⊗ ⊘ ◐ ◉

1.	ⓐ	ⓑ	ⓒ	ⓓ	26.	ⓐ	ⓑ	ⓒ	ⓓ	51.	ⓐ	ⓑ	ⓒ	ⓓ
2.	ⓐ	ⓑ	ⓒ	ⓓ	27.	ⓐ	ⓑ	ⓒ	ⓓ	52.	ⓐ	ⓑ	ⓒ	ⓓ
3.	ⓐ	ⓑ	ⓒ	ⓓ	28.	ⓐ	ⓑ	ⓒ	ⓓ	53.	ⓐ	ⓑ	ⓒ	ⓓ
4.	ⓐ	ⓑ	ⓒ	ⓓ	29.	ⓐ	ⓑ	ⓒ	ⓓ	54.	ⓐ	ⓑ	ⓒ	ⓓ
5.	ⓐ	ⓑ	ⓒ	ⓓ	30.	ⓐ	ⓑ	ⓒ	ⓓ	55.	ⓐ	ⓑ	ⓒ	ⓓ
6.	ⓐ	ⓑ	ⓒ	ⓓ	31.	ⓐ	ⓑ	ⓒ	ⓓ	56.	ⓐ	ⓑ	ⓒ	ⓓ
7.	ⓐ	ⓑ	ⓒ	ⓓ	32.	ⓐ	ⓑ	ⓒ	ⓓ	57.	ⓐ	ⓑ	ⓒ	ⓓ
8.	ⓐ	ⓑ	ⓒ	ⓓ	33.	ⓐ	ⓑ	ⓒ	ⓓ	58.	ⓐ	ⓑ	ⓒ	ⓓ
9.	ⓐ	ⓑ	ⓒ	ⓓ	34.	ⓐ	ⓑ	ⓒ	ⓓ	59.	ⓐ	ⓑ	ⓒ	ⓓ
10.	ⓐ	ⓑ	ⓒ	ⓓ	35.	ⓐ	ⓑ	ⓒ	ⓓ	60.	ⓐ	ⓑ	ⓒ	ⓓ
11.	ⓐ	ⓑ	ⓒ	ⓓ	36.	ⓐ	ⓑ	ⓒ	ⓓ	61.	ⓐ	ⓑ	ⓒ	ⓓ
12.	ⓐ	ⓑ	ⓒ	ⓓ	37.	ⓐ	ⓑ	ⓒ	ⓓ	62.	ⓐ	ⓑ	ⓒ	ⓓ
13.	ⓐ	ⓑ	ⓒ	ⓓ	38.	ⓐ	ⓑ	ⓒ	ⓓ	63.	ⓐ	ⓑ	ⓒ	ⓓ
14.	ⓐ	ⓑ	ⓒ	ⓓ	39.	ⓐ	ⓑ	ⓒ	ⓓ	64.	ⓐ	ⓑ	ⓒ	ⓓ
15.	ⓐ	ⓑ	ⓒ	ⓓ	40.	ⓐ	ⓑ	ⓒ	ⓓ	65.	ⓐ	ⓑ	ⓒ	ⓓ
16.	ⓐ	ⓑ	ⓒ	ⓓ	41.	ⓐ	ⓑ	ⓒ	ⓓ	66.	ⓐ	ⓑ	ⓒ	ⓓ
17.	ⓐ	ⓑ	ⓒ	ⓓ	42.	ⓐ	ⓑ	ⓒ	ⓓ	67.	ⓐ	ⓑ	ⓒ	ⓓ
18.	ⓐ	ⓑ	ⓒ	ⓓ	43.	ⓐ	ⓑ	ⓒ	ⓓ	68.	ⓐ	ⓑ	ⓒ	ⓓ
19.	ⓐ	ⓑ	ⓒ	ⓓ	44.	ⓐ	ⓑ	ⓒ	ⓓ	69.	ⓐ	ⓑ	ⓒ	ⓓ
20.	ⓐ	ⓑ	ⓒ	ⓓ	45.	ⓐ	ⓑ	ⓒ	ⓓ	70.	ⓐ	ⓑ	ⓒ	ⓓ
21.					46.					71.				
22.					47.					72.				
23.					48.					73.				
24.					49.					74.				
25.					50.					75.				