FIITJEE - JEE (Main)

PHYSICS, CHEMISTRY & MATHEMATICS
BATCHES: Two Year CRP(2224) B-lot
PHASE TEST – I
Q.P. CODE: 100057 (SET-A)

Time Allotted: 3 Hours **Maximum Marks: 300**

- Do not open this Test Booklet until you are asked to do so.
- Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

Important Instructions

Caution: Question Paper CODE as given above MUST be correctly marked in the answer OMR sheet before attempting the paper. Wrong CODE or no CODE will give wrong results.

A. General Instructions

1. Attempt ALL the questions. Answers have to be marked on the OMR sheets.
2. This question paper contains **Three Sections.**
3. **Section-I** is Physics, **Section-II** is Chemistry and **Section-III** is Mathematics.
4. Each **Section** is further divided into **Two Parts**: **Part-A & B** in the OMR.
5. Rough spaces are provided for rough work inside the question paper. No additional sheets will be provided for rough work.
6. No candidate is allowed to carry any textual material, printed or written, bits of papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices ext. except the Admit Card inside the examination hall / room.

B. Filling of OMR Sheet:

1. Ensure matching of OMR sheet with the Question paper before you start marking your answers on OMR sheet.
2. On the OMR sheet, darken the appropriate bubble with ***Blue/Black Ball Point Pen*** for each character of your Enrolment No. and write in ink your Name, Test Centre and other details at the designated places.
3. OMR sheet contains alphabets, numerals & special characters for marking answers.
4. **Do not fold or make any stray marks on the Answer Sheet.**

C. Marking Scheme for All Two Parts:

(i) **Part-A (01-20) –** Contains Twenty (20) multiple choice objective questions which have four (4) options each and only one correct option. Each question carries **+4 marks** which will be awarded for every correct answer and **-1 mark** will be deducted for every incorrect answer.

(ii) **Part-B (01-05)** contains five (05) Numerical based questions, the answer of which maybe positive or negative numbers or decimals to **Two decimal Places** (e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) and each question carries **+4 marks** for correct answer and **there will be no negative marking.**

Name of the Candidate :_____

Batch :_____ **Date of Examination :**_____

Enrolment Number :_____

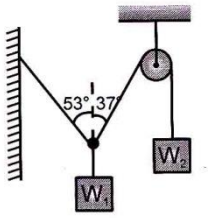
Physics

PART – A

Straight Objective Type

This part contains **20 multiple choice questions.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

1. Two weights W_1 and W_2 in equilibrium and at rest, are suspended as shown in figure. Then the ratio $\frac{W_1}{W_2}$ is

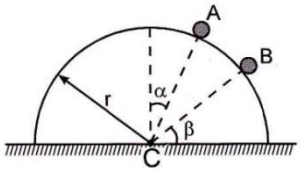


(A) 5/4 (B) 4/5
(C) 8/5 (D) None of these

2. A particle A is projected with speed V_A from a point, making an angle 60^0 with the horizontal. At the same instant, second particle B (lie in the same horizontal plane) is thrown vertically upwards from a point directly below the maximum height point of parabolic path of A, with velocity V_B. If the two particles collide then the ratio of V_A/V_B should be

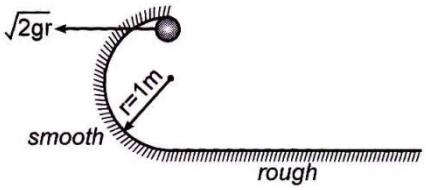
(A) 1 (B) $2/\sqrt{3}$ (C) $\sqrt{3}/2$ (D) $\sqrt{3}$

3. A particle initially at rest starts moving from point A on the surface of a fixed smooth hemisphere of radius r as shown. The particle looses its contact with hemisphere at point B. C is centre of the hemisphere. The equation relating α and β is



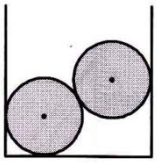
(A) $3\sin\alpha = 2\cos\beta$ (B) $2\sin\alpha = 3\cos\beta$ (C) $3\sin\beta = 2\cos\alpha$ (D) $2\sin\beta = 3\cos\alpha$

4. A body is given a velocity $\sqrt{2gr}$ at the highest point of a semi circular smooth track which is joined by a rough horizontal track whose coefficient of friction is $\mu = 0.5$. Then the distance travelled by particle before it stops on horizontal track is (r = 1 m)



(A) 1 m (B) 4 m (C) 6 m (D) None of these

5. Two smooth sphere each of radius 5 cm and weight W is in equilibrium inside a fixed smooth cylinder of radius 8 cm as shown in the figure. The reactions between the spheres and the vertical side of the cylinder are



(A) W/4 and 3W/4 (B) W/4 and W/4
(C) 3W/4 and 3W/4 (D) W and W

Space For Rough Work

6. A person walking at the rate of 3km/hour, the rain appears to fall vertically when he increase his speed to 6 km/hr it appears him coming at angle of 45^0 with vertical. The speed of rain is

(A) $3\sqrt{2}$ km/hr (B) $\frac{3}{\sqrt{2}}$ km/hr

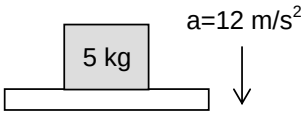
(C) $6\sqrt{2}$ km/hr (D) $2\sqrt{3}$ km/hr

7. A block of mass 2 kg is gently placed over a massive plank moving horizontally over a smooth surface with velocity 6 m/s. The coefficient of friction between the block and plank is 0.2. The distance travelled by the block with respect to plank till it slides on the plank is ($g = 10\ m/s^2$)

(A) 4 m (B) 6 m

(C) 9 m (D) 12 m

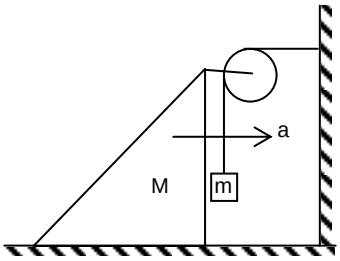
8. A block 5 kg is kept on the floor of an elevator at rest. As the elevator starts descending with an acceleration of 12 m/s^2, (Taking $g = 10\ m/s^2$) the displacement of the block during the first 0.2 sec in the ground frame.



(A) 0.04 meter (B) 0.24 meter

(C) 0.2 meter (D) 0.02 meter

9. If wedge is moving with acceleration a as shown in the figure then value of net force on m is



(A) ma (B) $\sqrt{2}$ ma

(C) mg +ma (D) zero

10. A particle moves in a straight line with retardation proportional to its displacement. Its loss of kinetic energy for any displacement x is proportional to:

(A) x (B) x^2

(C) ln x (D) e^x

11. Two particles are projected in the same vertical plane, from a single point but with different speeds and different angles to the horizontal. The path followed by one as seen from the other will be(while both are in air):

(A) a vertical straight line

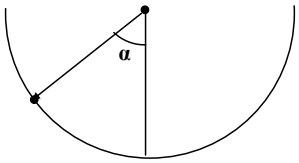
(B) a straight line making a constant angle ($\neq 90^\circ$)

(C) a parabola

(D) a hyperbola

Space For Rough Work

12. An insect crawls up a hemispherical surface very slowly. The coefficient of friction between the insect and the surface is 1/3. If the line joining the insect to the centre makes an angle α with the vertical then the maximum value of α can be:



(A) cot α = 3 (B) tan α = 3
(C) sec α = 3 (D) cosec α = 3

13. A Cannon ball has the same range R on a horizontal plane for two angles of projection. If h_1 and h_2 are the greatest height in the two paths for which this is possible, then:

(A) R = $\sqrt{h_1h_2}$ (B) $R = 4\sqrt{h_1h_2}$ (C) $R = 2\sqrt{h_1h_2}$ (D) $R = \sqrt{2h_1h_2}$

14. A force $\vec{F} = -k(y\hat{i} + x\hat{j})$ where k is a positive constant acts on a particle moving in the x-y plane. Starting form the origin, the particle is taken along positive x-axis to the point (a, 0) and then parallel to the y-axis to the point (a, a). The total work done by the force $\vec{F}$ on the particle is

(A) $-2ka^2$ (B) $2ka^2$
(C) $-ka^2$ (D) ka^2

15. The unit vector $\hat{n}$ perpendicular to both $\vec{A} = \hat{i} - 2\hat{j} + \hat{k}$ and $\vec{B} = 3\hat{i} + \hat{j} - 2\hat{k}$ is

(A) $\frac{5\hat{i}+3\hat{j}+7\hat{k}}{\sqrt{83}}$ (B) $\frac{3\hat{i}+5\hat{j}+7\hat{k}}{\sqrt{83}}$
(C) $\frac{5\hat{i}+3\hat{j}-7\hat{k}}{\sqrt{83}}$ (D) $\frac{3\hat{i}-5\hat{j}+7\hat{k}}{\sqrt{83}}$

16. A body of mass M is kept on a rough horizontal surface (friction coefficient = μ). A person is trying to pull the body by applying a horizontal force but the body is not moving. The force by surface on the body is F such that

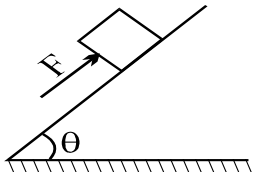
(A) F = Mg (B) F = μMg
(C) $Mg \le F \le Mg\sqrt{\mu^2+1}$ (D) $Mg \ge F \ge Mg\sqrt{1-\mu^2}$

17. A car accelerate from rest at constant rate α for some time and then Decelerate at constant rate β to come to rest. Find maximum velocity reached if total time elapsed is ' t '.

(A) $\frac{(\alpha+\beta)}{2}$ t (B) $\frac{\alpha\beta t}{\alpha+\beta}$ (C) $\frac{2\alpha\beta t}{\alpha+\beta}$ (D) $\frac{(\alpha^2+\beta^2)}{\alpha\beta}t$

Space For Rough Work

18 A block placed on a rough inclined plane of inclination (θ=30°) can just be pushed upwards by applying a force "F" as shown. If the angle of inclination of the inclined plane is increased to (θ = 60°), the same block can just be prevented from sliding down by application of a force of same magnitude.The coefficient of friction between the block and the inclined plane is



(A) $\frac{\sqrt{3}+1}{\sqrt{3}-1}$ (B) $\frac{2\sqrt{3}-1}{\sqrt{3}+1}$ (C) $\frac{\sqrt{3}-1}{\sqrt{3}+1}$ (D) None of these

19. A road is banked at an angle of 30° to the horizontal for negotiating a curve of radius $10\sqrt{3}$ m. At what velocity will a car experience no friction while negotiating the curve?
(A) 54 km/hr (B) 72 km/hr (C) 36 km/hr (D) 18 km/hr

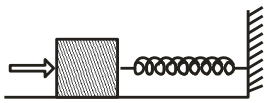
20. Two vectors $\vec{P}$ and $\vec{Q}$ are perpendicular to each other and $|\vec{P}| = 2|\vec{Q}|$. The angle between $\vec{P}+\vec{Q}$ and $(\vec{P}\times\vec{Q})$ is

(A) $\cos^{-1}\left(1/2\sqrt{2}\right)$ (B) $\frac{\pi}{4}$ (C) $\frac{\pi}{2}$ (D) $\cos^{-1}(3/5)$

PART-B
Numerical Type

1. Velocity time equation of a particle moving in a straight line is $V = t^2 - 5t + 6$. The distance travelled by the particle in the time interval from t = 0 to t = 4 sec

2. A block of mass 0.18 kg is attached to a spring of force-constant 2 N/m. The coefficient of friction between the block and the floor is 0.1. Initially the block is at rest and the spring is unstretched. An impulse is given to the block as shown in figure. The block slides a distance of 0.06 m and comes to rest for the first time. The initial velocity of the block in m/s is

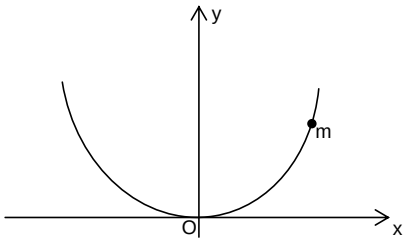


Space For Rough Work

3. A body of mass 6 kg is acted upon by a force which causes a displacement in it given by $x = \frac{t^2}{4}$ metre where t is the time in second. The work done (in joules) by the force in 2 seconds is

4. A boy whirls a stone in a horizontal circle of radius 2 m at height 4.9 m above level ground. The string breaks, and the stone flies off horizontally and strikes the ground at a point which is 10 m away from the point on the ground directly below the point where the string had broken. The magnitude of the centripetal acceleration of the stone in circular motion is 10a S.I. units. Find value of a ($g = 9.8\ m/s^2$).

5. A bead of mass m is located on parabolic wire with its axis vertical and vertex at the origin as shown in figure and whose equation is $x^2 = 4ay$. The wire frame is fixed and bead can slide on it without friction. The bead is released from the point y = 4a on the wire frame from rest. The tangential acceleration of the bead when it reaches the position given by y = a is n m/s^2. Find the value of 'n'. ($g = 10\ m/s^2$)



Space For Rough Work

Chemistry

PART – A

Straight Objective Type

This part contains **20 multiple choice questions.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

1. The atomic mass of an element is 24 g mol^{-1}. Which statement is wrong for it?
   (A) The mass of 6.022×10^{23} atoms of the element is 24 g
   (B) One atom of the element weighs 39.84×10^{-24} g
   (C) The mass of all the protons and electrons of one mole of atoms of the element weigh 24 g
   (D) The number of atoms present in 0.24 g of the element is 6.022×10^{21}

2. The radius of the first Bohr orbit of hydrogen atom is $0.53\,\mathring{A}$. The radius of the n^{th} orbit of H-atom is $8.48\,\mathring{A}$. What is the value of 'n'?
   (A) 2 (B) 8
   (C) 4 (D) 16

3. A cylinder of volume 8 litre contains an ideal gas at 1000 K. If the gas is completely transferred into a cylinder of volume 4 litre at constant temperature, which change will be observed?
   (A) The molecules will collide on the wall of the cylinder with higher kinetic energy.
   (B) The number of collision of molecules per unit area of wall will increase.
   (C) The intermolecular collision will decrease.
   (D) No collision is observed as temperature remains constant.

4. Consider some of the elements of the second period of periodic table
   B C N O F
   Which property of above elements vary uniformly or regularly from boron to fluorine?
   (A) First ionization energy (B) Electron affinity
   (C) Electronegativity (D) Melting point

5. Which of the following molecule has the largest bond angle according to valence bond theory?
   (A) BF_3 (B) CF_4
   (C) NF_3 (D) OF_2

6. Which compound is formed when sodium reacts with excess of dry oxygen?
   (A) Na_2O_2 (B) NaOH
   (C) $Na_2O.Na_3N$ (D) Na_2CO_3

Space For Rough Work

7. What type of compounds does hydrogen form with other non-metals?
(A) Ionic compounds (B) Covalent compounds
(C) Compounds having H^- ions (D) Electrovalent compounds

8. What is the oxidation number of iodine in HIO_3?
(A) +4 (B) -5
(C) +5 (D) +3

9. The energy of the fourth orbit of a hydrogen like species is -3.4 eV. The energy of the first orbit of hydrogen atom is -13.6 eV. What is the atomic number of the H-like species.
(A) 2 (B) 4
(C) 3 (D) 5

10. A 10 litre container contains 112 g of N_2 gas and 24 g of He gas at 1000 K. The pressure produced in the container in terms of R and in atm unit is
(A) 10 R (B) 100 R
(C) 1000 R (D) R

11. Which has the largest ionic radius?
(A) Na^+ (B) Mg^{2+}
(C) C^{4-} (D) O^{2-}

12. Which orbital in H_2O holds the lone pair electrons?
(A) 2s (B) 2p
(C) sp^3 (D) sp^2

13. Which has the formula $Na_2CO_3.10H_2O$?
(A) Solid washing powder (B) Solid washing soda
(C) Aqueous solution of washing soda (D) Aqueous solution of washing powder

14. What type of covalent bond(s) is/are present in hydrogen peroxide?
(A) Polar and non-polar (B) H – H and O – O
(C) O – H and H – H (D) only polar

15. The covalent radius of atom A in A_2 molecule is r_A and that of atom B in B_2 molecule is r_B. Then the bond length of AB bond i.e. d_{A-B} is expressed as
(A) $d_{A-B} = r_A + r_B$ (B) $d_{A-B} > (r_A + r_B)$
(C) $d_{A-B} < (r_A + r_B)$ (D) $d_{A-B} = \frac{1}{r_A} + \frac{1}{r_B}$

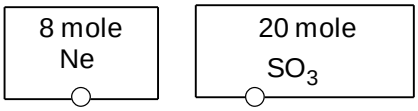
Space For Rough Work

16. Which bond angle is not observed in PF_5 molecule?
(A) 90^o (B) 180^o
(C) 120^o (D) $109^o28'$

17. Which is most soluble in water?
(A) $BeSO_4$ (B) $CaSO_4$
(C) $MgSO_4$ (D) $BaSO_4$

18. What is the oxidation number of oxygen in hydrogen peroxide?
(A) +1 (B) -2
(C) -1 (D) +2

19. How much CO_2 gas will be produced if 400 mL of 0.1 M HCl solution reacts with excess of sodium carbonate powder.
$Na_2CO_3 + 2HCl \longrightarrow 2NaCl + CO_2 + H_2O$
(A) 0.02 mole (B) 1.76 g
(C) 24.088×10^{-25} molecules (D) 2.24 litre at STP

20. 

At constant temperature what is the relative rates of effusion of Ne to SO_3 in the above two containers?
(A) 4: 5 (B) 8 : 5
(C) 5 : 2 (D) 3 : 5

PART-B
Numerical Type

1. A solution containing 4 g of NaOH and 10.6 g of Na_2CO_3 requires 200 mL of HCl solution for reaction in presence of phenolphthalein indicator. What is the molarity of HCl solution?

2. How many electron of Mg^{2+} ion has/have the following set of quantum numbers?
n = 2, ℓ = 0, m = 0, s = ±½

3. A 10 litre container contains an ideal gas at 80 R atm pressure and 400 K. What is the total kinetic energy of all the gas molecules present in the container in K Cal unit?
[R is the universal gas constant = 0.0821 L atm K^{-1} mol^{-1} =8.314 J K^{-1} mol^{-1} =2 Cal K^{-1} mol^{-1}]

4. How many lone pair of electrons is/are present in XeF_2?

5. What is the n-factor of $Cr_2O_7^{2-}$ ion in the following reaction?
$Cr_2O_7^{2-} + H^+ \longrightarrow Cr^{3+} + H_2O$

Space For Rough Work

Mathematics

PART – A

Straight Objective Type

This part contains **20 multiple choice questions.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.

1. The solution set of $\frac{(x+1)(x-2)^3}{x^2(x+5)^4} \le 0$ is

(A) $x \in [-1,2] - \{0\}$ (B) $x \in (-\infty,-5) \cup (-5,-1] \cup [2,\infty)$

(C) $x \in (-1,2)$ (D) $x \in (-\infty,-1] \cup [2,\infty)$

2. The set of solution $|x^2 + x| = x^2 + x$ is given by

(A) $(-\infty, -1)$ (B) $[0, \infty)$

(C) $[-1, 0]$ (D) $(-\infty, -1] \cup [0, \infty)$

3. If the mid point of join of $(x, y + 1)$ and $(x + 1, y + 2)$ is $\left(\frac{3}{2}, \frac{5}{2}\right)$, then the mid point of join of $(x – 1, y + 1)$ and $(x + 1, y – 1)$ is

(A) (-1, -1) (B) (-1, 1)

(C) (1, -1) (D) (1, 1)

4. If $\frac{(x-5)(|x+1|)}{(x^2+x+5)(x^2-4x-5)} > 0$, then x satisfies

(A) (–1, 5) (B) (–1, ∞) – {5}

(C) [–1, ∞) (D) (5, ∞)

5. If $\tan\alpha = \frac{p}{q}$ and $\tan\beta = \frac{q}{p}$, then the angle $(\alpha + \beta)$ is equal to

(A) $\frac{\pi}{3}$ (B) $\frac{\pi}{2}$

(C) $\frac{\pi}{6}$ (D) none of these

Space For Rough Work

6. The value of expression $\left(2+\sqrt{3}\right)\sin\theta+2\cos\theta$ lies between

(A) $-\sqrt{3}$ and $\sqrt{3}$ (B) $-\left(2+\sqrt{3}\right)$ and $\left(2+\sqrt{3}\right)$

(C) $-\left(2+\sqrt{5}\right)$ and $\left(2+\sqrt{5}\right)$ (D) none of these

7. If the line y – mx + m –1 = 0 cuts the circle $x^2+y^2-4x-4y+4=0$ at two real points, then m belongs to

(A) [1, 1] (B) [-2, 2]

(C) $(-\infty, \infty)$ (D) [-4, 4].

8. If the tangent at the P on the circle $x^2+y^2+2x+2y=7$ meets the straight line 3x – 4y = 15 at a point Q on the x-axis, then length of PQ is

(A) $3\sqrt{7}$ (B) $4\sqrt{7}$

(C) $2\sqrt{7}$ (D) $\sqrt{7}$

9. The coordinate of the point on the circle $x^2+y^2-12x-4y+30=0$ nearest to the origin is

(A) (3, 1) (B) (18, 6)

(C) (15, 5) (D) none of these

10. The straight lines joining the origin to the points of intersection of the line $2x+y=1$ and curve $3x^2+4xy-4x+1=0$ include an angle:

(A) $\frac{\pi}{2}$ (B) $\frac{\pi}{3}$

(C) $\frac{\pi}{4}$ (D) $\frac{\pi}{6}$

11. If $y=\ln\left(\sqrt{x}+\sin^2 x\right)$, then $\frac{dy}{dx}$ is equal to

(A) $\frac{1}{\sqrt{x}+\sin^2 x}$ (B) $\frac{1}{\sqrt{x}+\sin^2 x}\left(\frac{1}{2\sqrt{x}}+\sin 2x\right)$

(C) $\frac{1}{\sqrt{x}+\sin^2 x}\left(\sin x+\cos^2 x\right)$ (D) $\frac{x+\cos x}{2\left(\sqrt{x}+\sin^2 x\right)}$

12. In a triangle ABC equation of the perpendicular bisectors of the sides AB and AC are x + y = 0 and y – x = 0 respectively. If $A\equiv(5,7)$ then equation of side BC is

(A) $7y-5x=0$ (B) 5x = y

(C) 5y = 7x (D) 5y = x

Space For Rough Work

13. Equation of line which is a tangent for the circle $x^2 + y^2 = 4$ and also normal for the circle $(x-2)^2 + (y-5)^2 = 1$, is
(A) x = -2 (B) y = 2
(C) y = -2 (D) x = 2

14. Centre of the circle touching both the lines x + 2y + 3 = 0 and 2x + y – 1 = 0 will always lie on the line
(A) x – y + 3 = 0 or 3x + 3y + 2 = 0 (B) x – y – 4 = 0 or 3x + 3y +2 = 0
(C) x – y – 4 = 0 or x – y +3 = 0 (D) None of these

15. If $\cos A = \frac{1}{2}\left(x + \frac{1}{x}\right)$ then cos3A is equal to
(A) $x^3 + \frac{1}{x^3}$ (B) $\frac{1}{2}\left(x^3 - \frac{1}{x^3}\right)$
(C) $x^3 - \frac{1}{x^3}$ (D) $\frac{1}{2}\left(x^3 + \frac{1}{x^3}\right)$

16. If A and B are two points having coordinates (3, 4) and (5, – 2) respectively, P is a point such that PA = PB and area of triangle PAB = 10 sq. units, then the coordinates of P are
(A) (7, 4) or (13, 2) (B) (7, 2) or (1, 0)
(C) (2, 7) or (4, 13) (D) None of these

17. $\lim_{h\to 0} \frac{(\alpha+h)^2 \sin(\alpha+h) - \alpha^2 \sin\alpha}{h} =$
(A) $\alpha \cos\alpha + \alpha^2 \sin\alpha$ (B) $\alpha \sin\alpha + \alpha^2 \cos\alpha$
(C) $2\alpha \sin\alpha + \alpha^2 \cos\alpha$ (D) $2\alpha \cos\alpha + \alpha^2 \sin\alpha$

18. Find the equation of a straight line which passes through the point of intersection of the straight line $x + y - 5 = 0$ and $x - y + 3 = 0$ and perpendicular to the straight line intersecting x – axis at the point (2, 0) and the y – axis at the point (0, –3)
(A) $2x + 3y - 14 = 0$ (B) $2x - 3y + 14 = 0$
(C) $2x - 5y + 10 = 0$ (D) $2x + 5y + 10 = 0$

19. Integration of $\int \frac{x^2 - 2x + 3}{x^4} dx$ is equal to
(A) $-\frac{1}{x} - \frac{1}{x^2} + \frac{1}{x^3} + c$ (B) $-\frac{1}{x} + \frac{1}{x^2} - \frac{1}{x^3} + c$
(C) $\ln x - \frac{1}{x^2} + x^3 + c$ (D) $\frac{1}{x} - \frac{1}{x^2} - \frac{1}{x^3} + c$

Space For Rough Work

20. A triangle ABC with vertices A (–1, 0), B (–2, 3/4) and C (–3, –7/6) has its orthocentre H. Then the orthocentre of triangle BCH will be:

(A) $(-3,-2)$ (B) ((1, 3)

(C) (–1, 2) (D) none of these

PART-B
Numerical Type

1. The number of solution of $\log_4(x-1)=\log_2(x-3)$ is

2. The value of 'k' for which circles $x^2+y^2-81=0$ and $x^2+y^2-4x-6y+k=0$ are orthogonal is

3. If $\tan\left(\frac{\pi}{4}-x\right)+\tan\left(\frac{\pi}{4}+x\right)=3$, then $\tan^2\left(\frac{\pi}{4}-x\right)+\tan^2\left(\frac{\pi}{4}+x\right)$ is equal to

4. If $7^{\log_7\left(x^2-4x+5\right)}=(x-1)$, then number of solution of x is

5. The area of parallelogram whose two sides are $y=x+3,\ 2x-y+1=0$ and remaining two sides are passing through (0, 0) is

Space For Rough Work

FIITJEE INTERNAL TEST

BATCHES: Two Year CRP(2224) B-lot_JEEM

PHASE TEST – I

PHYSICS, CHEMISTRY & MATHEMATICS

ANSWER KEY

Paper Code 100057

SECTION – I

(PHYSICS)

PART – A

1.	**A**	2.	**B**	3.	**C**	4.	**C**
5.	**C**	6.	**A**	7.	**C**	8.	**C**
9.	**B**	10.	**B**	11.	**B**	12.	**A**
13.	**B**	14.	**C**	15.	**B**	16.	**C**
17.	**B**	18.	**C**	19.	**C**	20.	**C**

PART – B

1.	**5.67**	2.	**0.40**	3.	**3**	4.	**5**
5.	**7.07**						

SECTION – II

(CHEMISTRY)

PART – A

1.	**C**	2.	**C**	3.	**B**	4.	**C**
5.	**A**	6.	**A**	7.	**B**	8.	**C**
9.	**A**	10.	**C**	11.	**C**	12.	**C**
13.	**B**	14.	**A**	15.	**C**	16.	**D**
17.	**A**	18.	**C**	19.	**A**	20.	**B**

PART – B

1.	**1**	2.	**2**	3.	**2.40**	4.	**3**
5.	**6**						

SECTION – III
(MATHEMATICS)

PART – A

1.	A	2.	D	3.	D	4.	B
5.	B	6.	D	7.	C	8.	C
9.	A	10.	A	11.	B	12.	A
13.	D	14.	B	15.	D	16.	B
17.	C	18.	A	19.	B	20.	D

PART – B

1.	1	2.	81	3.	7	4.	2
5.	3						