English

(1001CJA102122039)

Test Pattern

ALLEN CAREER INSTITUTE KOTA (RAJASTHAN)

CLASSROOM CONTACT PROGRAMME

(Academic Session : 2022 - 2023)

JEE(Advanced)
PART TEST
03-01-2023

JEE(Main+Advanced) : ENTHUSIAST COURSE [PHASE : TRAS, I, LIVE-I] (SCORE-I)

Time : 3 Hours

PAPER-2

Maximum Marks : 198

READ THE INSTRUCTIONS CAREFULLY

GENERAL :

1. This sealed booklet is your Question Paper. Do not break the seal till you are told to do so.
2. Use the Optical Response sheet (ORS) provided separately for answering the questions.
3. Blank spaces are provided within this booklet for rough work.
4. Write your name, form number and sign in the space provided on the back cover of this booklet.
5. After breaking the seal of the booklet, verify that the booklet contains **28** pages and that all the **18** questions in each subject and along with the options are legible. If not, contact the invigilator for replacement of the booklet.
6. You are allowed to take away the Question Paper at the end of the examination.

OPTICAL RESPONSE SHEET :

7. The ORS will be collected by the invigilator at the end of the examination.
8. Do not tamper with or mutilate the ORS. **Do not use the ORS for rough work.**
9. Write your name, form number and sign with pen in the space provided for this purpose on the ORS. **Do not write any of these details anywhere else on the ORS.** Darken the appropriate bubble under each digit of your form number.

DARKENING THE BUBBLES ON THE ORS :

10. Use a **BLACK BALL POINT PEN** to darken the bubbles on the ORS.
11. Darken the bubble ◯ **COMPLETELY.**
12. The correct way of darkening a bubble is as : ●
13. The ORS is machine-gradable. Ensure that the bubbles are darkened in the correct way.
14. Darken the bubbles **ONLY IF** you are sure of the answer. There is **NO WAY** to erase or "un-darken" a darkened bubble.
15. Take **g = 10 m/s²** unless otherwise stated.

QUESTION PAPER FORMAT :

16. The question paper has three parts : Physics, Chemistry and Mathematics.

DO NOT BREAK THE SEALS WITHOUT BEING INSTRUCTED TO DO SO BY THE INVIGILATOR

Please see the last page of this booklet for rest of the instructions

SOME USEFUL CONSTANTS

Atomic No. : H = 1, B = 5, C = 6, N = 7, O = 8, F = 9, Al = 13, P = 15, S = 16, Cl = 17, Br = 35, Xe = 54, Ce = 58

Atomic masses : H = 1, Li = 7, B = 11, C = 12, N = 14, O = 16, F = 19, Na = 23, Mg = 24, Al = 27, P = 31, S = 32, Cl = 35.5, Ca=40, Fe = 56, Br = 80, I = 127, Xe = 131, Ba=137, Ce = 140

• **Boltzmann constant**	$k = 1.38 \times 10^{-23}\ JK^{-1}$
• **Coulomb's law constant**	$\frac{1}{4\pi\varepsilon_0} = 9\times10^9$
• **Universal gravitational constant**	$G = 6.67259 \times 10^{-11}\ N\text{–}m^2\ kg^{-2}$
• **Speed of light in vacuum**	$c = 3 \times 10^8\ ms^{-1}$
• **Stefan–Boltzmann constant**	$\sigma = 5.67 \times 10^{-8}\ Wm^{-2}\text{–}K^{-4}$
• **Wien's displacement law constant**	$b = 2.89 \times 10^{-3}\ m\text{–}K$
• **Permeability of vacuum**	$\mu_0 = 4\pi \times 10^{-7}\ NA^{-2}$
• **Permittivity of vacuum**	$\in_0 = \frac{1}{\mu_0 c^2}$
• **Planck constant**	$h = 6.63 \times 10^{-34}\ J\text{–}s$

Space for Rough Work

HAVE CONTROL ⟶ HAVE PATIENCE ⟶ HAVE CONFIDENCE ⇒ 100% SUCCESS

BEWARE OF NEGATIVE MARKING

PART-1 : PHYSICS

SECTION-I : (Maximum Marks: 24)

- This section contains **SIX (06)** questions.
- Each question has **FOUR** options. **ONE OR MORE THAN ONE** of these four option(s) is (are) correct answer(s).
- For each question, choose the option(s) corresponding to (all) the correct answer(s)
- Answer to each question will be evaluated according to the following marking scheme:

Full Marks : +4 If only (all) the correct option(s) is (are) chosen.
Partial Marks : +3 If all the four options are correct but ONLY three options are chosen.
Partial Marks : +2 If three or more options are correct but ONLY two options are chosen and both of which are correct.
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Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered).
Negative Marks : –2 In all other cases.

- **For Example :** If first, third and fourth are the **ONLY** three correct options for a question with second option being an incorrect option; selecting only all the three correct options will result in +4 marks. Selecting only two of the three correct options (e.g. the first and fourth options), without selecting any incorrect option (second option in this case), will result in +2 marks. Selecting only one of the three correct options (either first or third or fourth option), without selecting any incorrect option (second option in this case), will result in +1 marks. Selecting any incorrect option(s) (second option in this case), with or without selection of any correct option(s) will result in –2 marks.

---

1. A body of mass m is suspended from two light springs of force constants k_1 and k_2 separately. The periods of vertical oscillations are T_1 and T_2 respectively. Now the same body is suspended from the same two springs which are first connected in series and then in parallel. The period of vertical oscillations are T_s and T_p respectively :-

(A) $T_p < T_1 < T_2 < T_s$ for $k_1 > k_2$

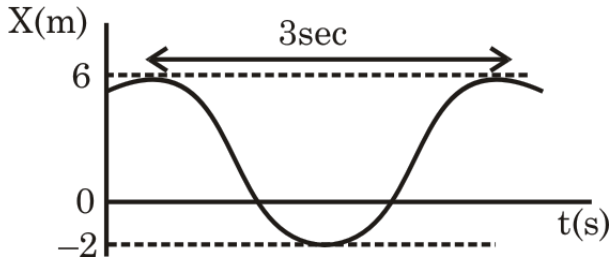
(B) $\frac{1}{T_p^2} = \frac{1}{T_1^2} + \frac{1}{T_2^2}$

(C) $T_s^2 = T_1^2 + T_2^2$

(D) $\sqrt{T_s} = \sqrt{T_1} + \sqrt{T_2}$

Space for Rough Work

2. A particle executes SHM about a point other than x = 0 as shown in the graph. Then :



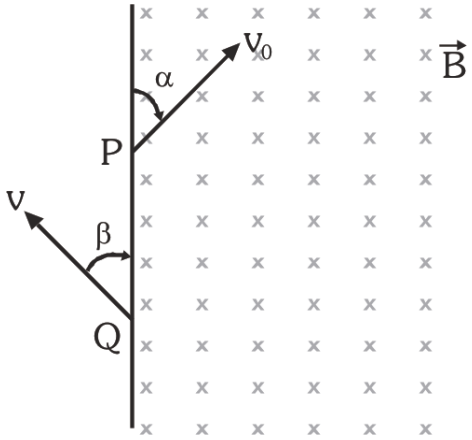
(A) amplitude is equal to 4m

(B) equilibrium position is at x = 0

(C) equilibrium position is at x = 2m

(D) angular frequency = $\frac{2\pi}{3}$ rad/s.

3. A particle of charge –q and mass m enters a uniform magnetic field $\vec{B}$ (perpendicular to paper inwards) at P with a velocity v_0 at an angle α and leaves the field at Q with velocity v at angle β as shown in fig., then



(A) $\alpha = \beta$

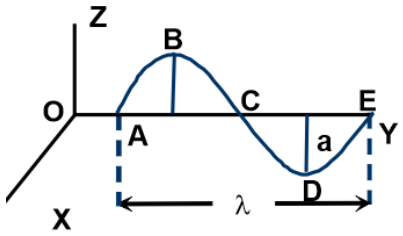
(B) $v = v_0$

(C) $PQ = \frac{2mv_0 \sin\alpha}{Bq}$

(D) Particle remains in the field for time $t = \frac{2m(\pi - \alpha)}{Bq}$

Space for Rough Work

4. The conductor ABCDE has the shape shown. It lies in the yz plane, with A and E on the y-axis. When it moves with a velocity v in a magnetic field B, and emf e is induced between A and E



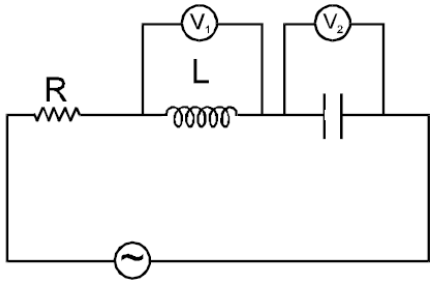
(A) e = 0, it v is in the y-direction and B is in the x-direction

(B) e = 2Bav, if v is in the z-direction and B is in the x-direction

(C) e = Bλv, if v is in the z-direction and B is in the x-direction

(D) e = Bλv, if v is in the x-direction and B is in the z-direction

5. In the circuit shown, resistance R = 100 Ω, inductance L = $\frac{2}{\pi}$H and capacitance C = $\frac{8}{\pi}$μF are connected in series with an ac source of 200 volt and frequency 'f'. If the readings of the hot wire voltmeters V_1 and V_2 are same then :



(A) f = 125 Hz

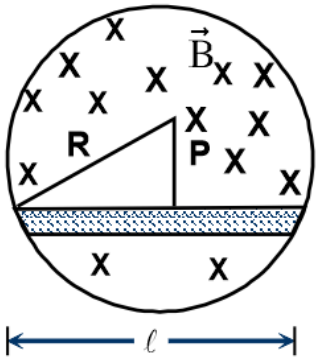
(B) f = 250 π Hz

(C) Current through R is 2A

(D) $V_1 = V_2 = 1000$ volt

Space for Rough Work

6. A uniform magnetic field B fills a cylindrical volume of radius R. A metal rod of length l is placed as shown. If B is changing at the rate of dB/dt, the emf that is produced by the changing magnetic field is x. Here $P = \sqrt{R^2 - \left(\frac{\ell}{2}\right)^2}$. Then



(A) The magnitude of the electric field created is $\frac{1}{2}r\frac{dB}{dt}$.

(B) The magnitude of the field component along the length of the rod is $\frac{1}{2}p\frac{dB}{dt}$.

(C) The magnitude of the electric field component $\perp$ to the rod is zero.

(D) The induced emf is $\frac{1}{2}lp\frac{dB}{dt}$

Space for Rough Work

SECTION-II : (Maximum Marks: 24)

- This section contains **SIX (06)** questions. The answer to each question is a **NUMERICAL VALUE**.
- For each question, enter the correct numerical value of the answer in the place designated to enter the answer. If the numerical value has more than two decimal places, **truncate/round-off** the value to **Two** decimal places; e.g. 6.25, 7.00, –0.33, –.30, 30.27, –127.30, if answer is 11.36777..... then both 11.36 and 11.37 will be correct)
- Answer to each question will be evaluated according to the following marking scheme:

Full Marks : +4 If ONLY the correct numerical value is entered.
Zero Marks : 0 In all other cases.

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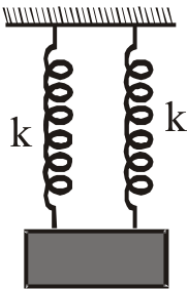
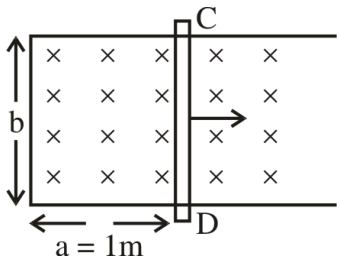
1. A small block of mass m = $\frac{1}{2}$kg is attached to two springs each of force constant k = 10 N/m as shown in figure. The block is executing SHM with amplitude A = $\frac{1}{2}$m. When the block is at equilibrium position one of the spring breaks without changing momentum of block. What is new amplitude (in cm) of oscillation.



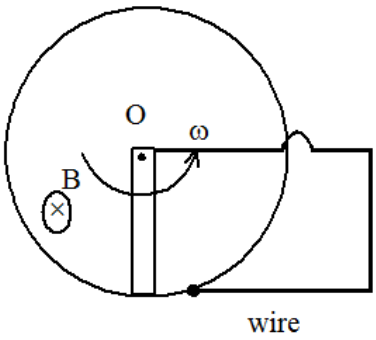
2. If a 2 kg mass is attached to a spring of force constant k = 1250 N/m, undergoes the damped oscillation with time period of oscillation is T = $\frac{\pi}{12}$ sec. Then the damping constant 'b' has the value (in kg/sec) :

Space for Rough Work

3. A 'U' shaped conducting frame is fixed in space. A conducting rod CD lies at rest on the smooth frame. The frame is kept in magnetic field B, which is perpendicular to the plane of frame. At time t = 0, the magnitude of magnetic field begins to change with time t as $B = \frac{B_0}{1+5t}$, where B is in tesla, t is in seconds and B_0 is positive constant for no current to be even induced in frame the constant speed (in m/s) with which the rod should moved starting from time t = 0 is



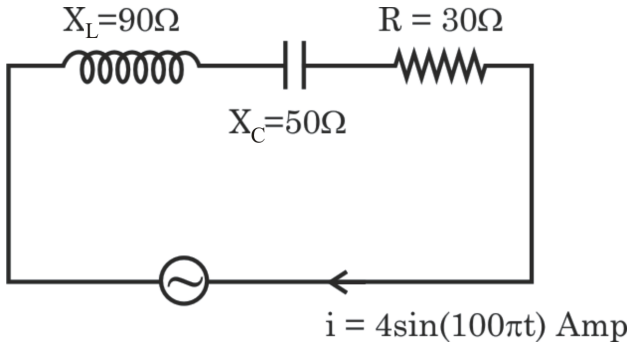
4. A metallic rod of length ℓ & resistance R is free to rotate about one of its ends over a horizontal smooth, rigid circular metallic frame of radius ℓ in an inward magnetic field of induction B. The circuit is completed by means of a conducting wire connected between the centre O and the point on the ring. $\frac{B^2\ell^4\omega}{nR}$ torque should be applied by an external agent. (To rotate the rod with constant angular velocity ω). Find value of n.



Space for Rough Work

5. A small ball of mass 1 gm carrying a charge of 1mC is dropped in a uniform magnetic field of 1T in horizontal direction in the presence of uniform gravity in vertically downward direction. Maximum speed (in m/s) of the ball in subsequent motion is

6. Find potential difference (in volt) across inductor at t = 1 sec. All data are given in the figure.



Space for Rough Work

SECTION-III : (Maximum Marks: 18)

- This section contains **SIX (06)** questions.
- The answer to each question is a **SINGLE DIGIT INTEGER** ranging from 0 to 9, both inclusive.
- For each question, enter the correct integer value of the answer in the place designated to enter the answer.
- For each question, marks will be awarded in one of the following categories :

Full Marks	:	+3	If only the correct answer is given.
Zero Marks	:	0	If no answer is given.
Negative Marks	:	–1	In all other cases

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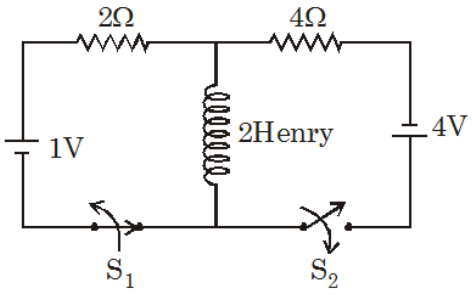
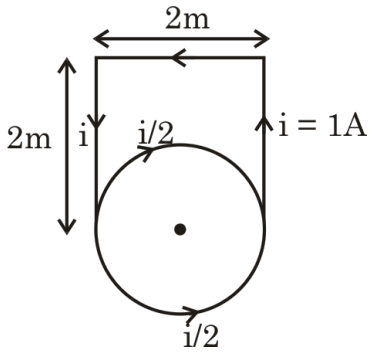
1. In the circuit shown in the figure, S_1 remains closed for a long time and S_2 remains open. Now S_2 is closed and S_1 is opened. Find out the $\left|\frac{di}{dt}\right|$ (in Amp/sec) just after this moment :



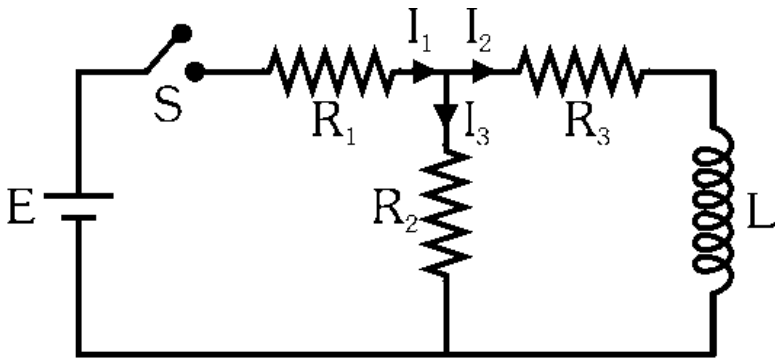
2. Find the value of magnetic dipole moment (in Am^2) of the following circuit the current distribution is shown in the diagram.



Space for Rough Work

3. A coil is wound as a transformer of rectangular cross-section. If all the linear dimensions of the transformer are increased by a factor 2 and the number of turns per unit length of the coil remain the same, the self inductance increased by a factor of

4. In the figure circuit, if E = 20V, R_1 = 2 ohm, R_2 = 3 ohm, R_3 = 6 ohm and L = 5 henry. The ratio of current I_1 just after pressing the switch S and long time after pressing the switch S is x/10. Find the value of x.



5. A block is kept on a horizontal table. The table is undergoing simple harmonic motion of frequency 3Hz in a horizontal plane. The coefficient of static friction between block and the table surface is 0.72. Find the maximum amplitude of the table (in cm) at which the block does not slip on the surface. (Take $\pi^2 = 10$)

6. A particle performing linear SHM with time period T is at $x = +\frac{A}{2}$ moving towards positive extreme. The time after which it will first come to rest is $\frac{T}{N}$. Find N.

Space for Rough Work

PART-2 : CHEMISTRY

SECTION-I : (Maximum Marks: 24)

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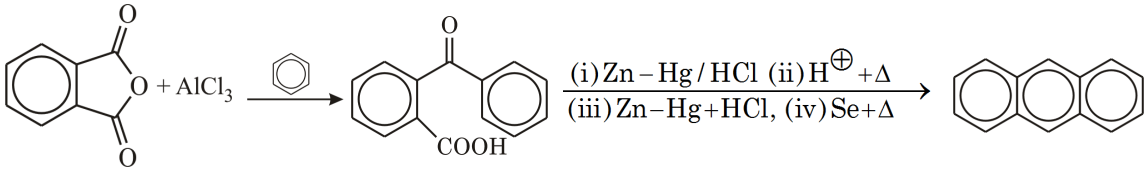
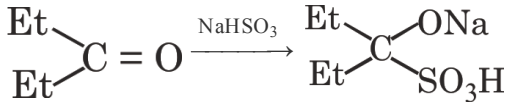
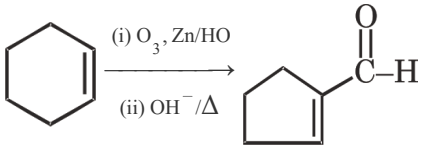
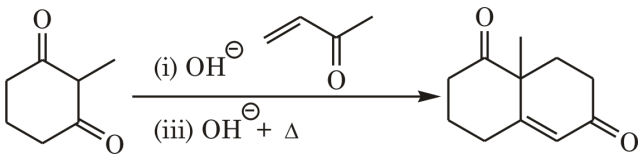
1. Which of the following reaction(s) give correct product as shown

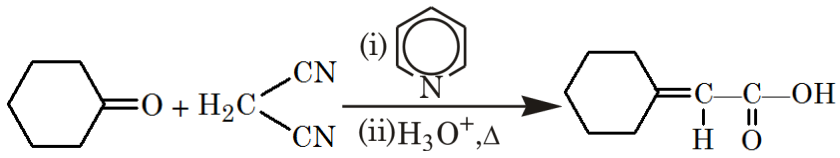
(A) 

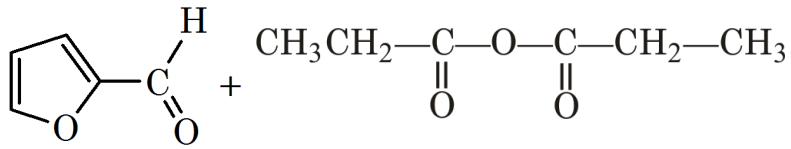
(B) 

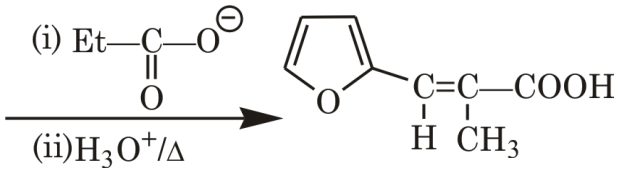
(C) 

(D) 

2. Identify correct reactions/statements.

(A) 

(B) 



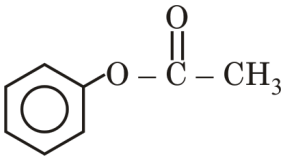
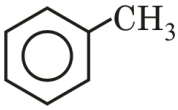
(C) $CCl_3-\underset{\underset{O}{\|}}{C}-H$ can't show Cannizaro reaction

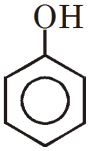
(D) $Me-\underset{\underset{O}{\|}}{C}-Et \xrightarrow{OH^-}$ Total aldol reaction products including stereoisomers = 6.

Space for Rough Work

3. Correct statement(s) in the following?

(A) Rate of sulphonation of C_6H_6 and C_6D_6 are equal.

(B) Rate of halogentation of  is faster than 

(C)  on reaction with Br_2 / H_2O forms tribromoderivative.

(D)  on reaction with Cl_2 at 500°C will give electrophilic substitution reaction.

4. Following statement(s) is/are true for D-glucose :

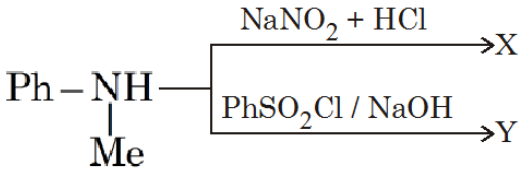
(A) It shows Schiff's reagent test

(B) It is C-2 epimer of D-mannose

(C) Can be oxidised by Br_2 / H_2O to form saccharic acid

(D) Shows mutarotation.

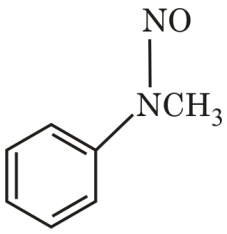
Space for Rough Work

5. For the following reaction(s) 

Correct options for possible products X & Y is/are ?

(A) X is oily liquid

(B) Y is a ppt and does not react with base

(C) X is 

(D) In Y lone pair of nitrogen is delocalised

6. The correct statement(s) is/are

(A) Tyrosine is non-essential amino acid.

(B) Histidine is a neutral amino acid.

(C) Threonine is an amino acid having alcoholic group.

(D) Methionine is a basic amino acid.

Space for Rough Work

SECTION-II : (Maximum Marks: 24)

- This section contains **SIX (06)** questions. The answer to each question is a **NUMERICAL VALUE**.
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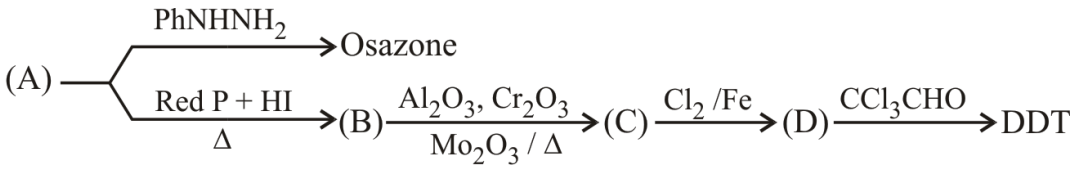
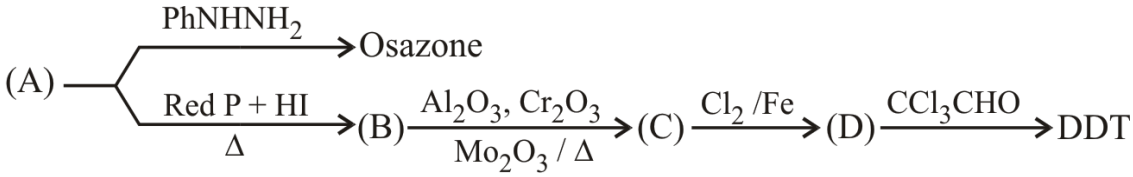
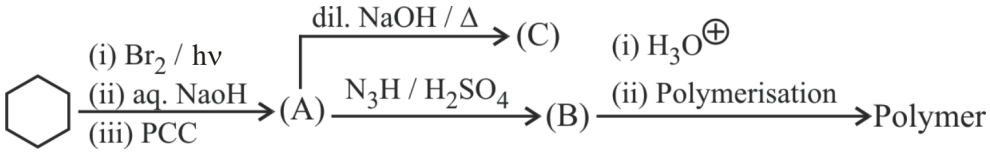
1. 

How many moles of HIO_4 will be consumed by one mole of compound (A)?

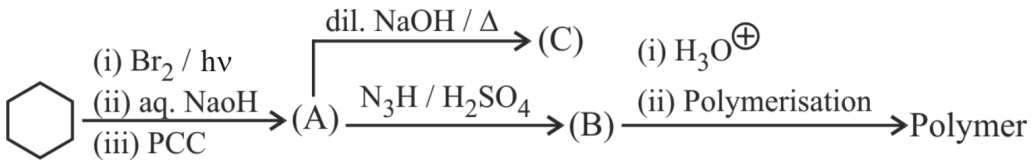
2. 

Total number of monochloro derivatives produced by B is _____

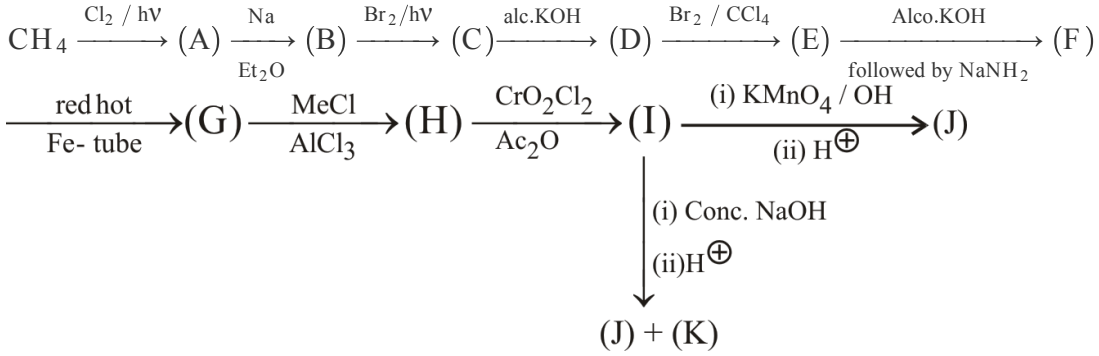
3. 

The molecular weight of compound (B) is _____

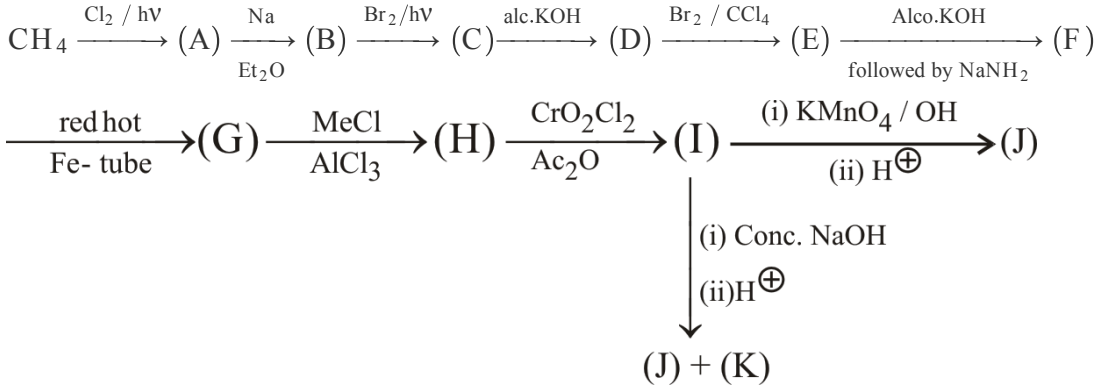
Space for Rough Work

4. 

The degree of unsaturation of compound (C) is ____

5. 

Number of sp^2 carbons present in compound (J) is ___

6. 

Compound (H) on reaction with fuming HNO_3 + fuming H_2SO_4 gives an explosive which contains _____ number of N-atoms.

Space for Rough Work

SECTION-III : (Maximum Marks: 18)

- This section contains **SIX (06)** questions.
- The answer to each question is a **SINGLE DIGIT INTEGER** ranging from 0 to 9, both inclusive.
- For each question, enter the correct integer value of the answer in the place designated to enter the answer.
- For each question, marks will be awarded in one of the following categories :

Full Marks	:	+3	If only the correct answer is given.
Zero Marks	:	0	If no answer is given.
Negative Marks	:	–1	In all other cases

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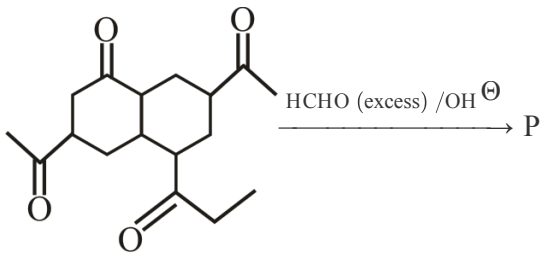
1. 

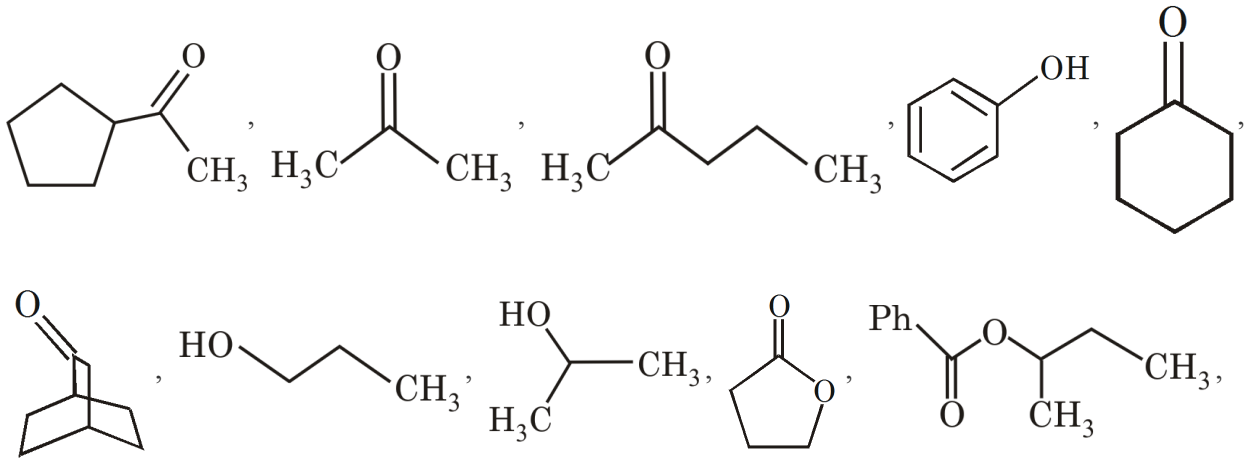
Product P has _____ OH groups.

Fill your answer as sum of digits (excluding decimal places) till you get the single digit answer.

2. Count number of polymers which are condensation polymers as well as co-polymers :
(1) Nylon-6 (2) Nylon-6, 6 (3) Nylon-6, 10 (4) Dacron
(5) Bakelite (6) Melamine formaldehyde resin (7) Polyisoprene
(8) Styrene-butadiene rubber (9) PAN (10) Teflon

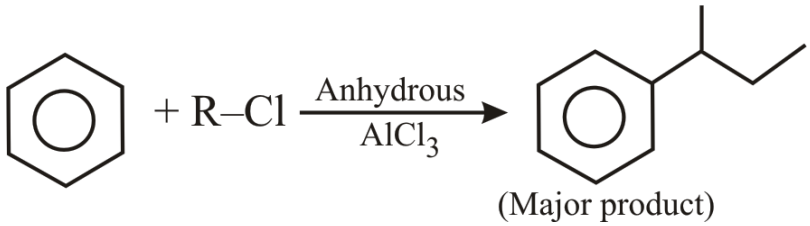
Space for Rough Work

3. Identify the total number of compounds that give 2, 4-DNP test



Acetic acid , Acetamide

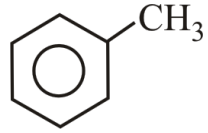
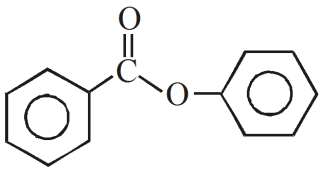
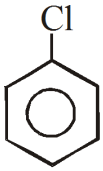
4. Number of possible alkyl chloride in following reaction -

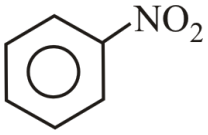
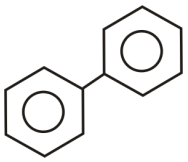
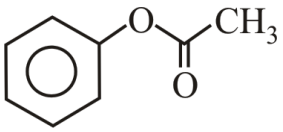


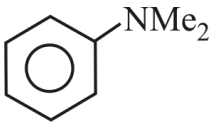
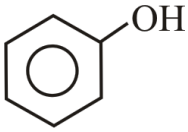
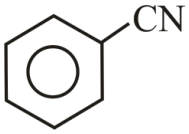
(Major product)

Space for Rough Work

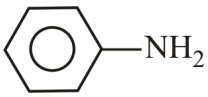
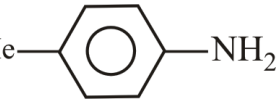
5. How many of the following compounds will show higher rate of electrophilic substitution reaction than benzene -

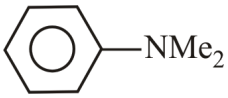
(a)  (b)  (c) 

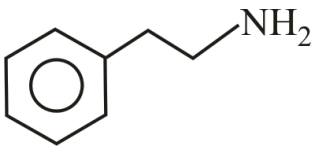
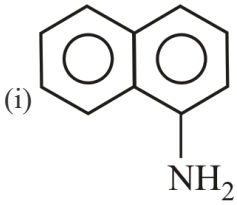
(d)  (e)  (f) 

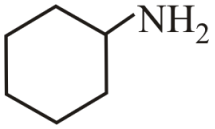
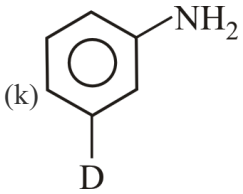
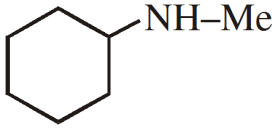
(g)  (h)  (i) 

6. How many of the following will produce red colour dye when treated with $NaNO_2/HCl$ followed by alkaline β-naphthol.

(a) $CH_3–CH_2–NH_2$ (b)  (c) 

(d) Me_2NH (e)  (f)  (g) Et_3N

(h)  (i) 

(j)  (k)  (l) 

Space for Rough Work

PART-3 : MATHEMATICS

SECTION-I : (Maximum Marks: 24)

- This section contains **SIX (06)** questions.
- Each question has **FOUR** options. **ONE OR MORE THAN ONE** of these four option(s) is (are) correct answer(s).
- For each question, choose the option(s) corresponding to (all) the correct answer(s)
- Answer to each question will be evaluated according to the following marking scheme:

Full Marks : +4 If only (all) the correct option(s) is (are) chosen.

Partial Marks : +3 If all the four options are correct but ONLY three options are chosen.

Partial Marks : +2 If three or more options are correct but ONLY two options are chosen and both of which are correct.

Partial Marks : +1 If two or more options are correct but ONLY one option is chosen and it is a correct option.

Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered).

Negative Marks : –2 In all other cases.

- **For Example :** If first, third and fourth are the **ONLY** three correct options for a question with second option being an incorrect option; selecting only all the three correct options will result in +4 marks. Selecting only two of the three correct options (e.g. the first and fourth options), without selecting any incorrect option (second option in this case), will result in +2 marks. Selecting only one of the three correct options (either first or third or fourth option), without selecting any incorrect option (second option in this case), will result in +1 marks. Selecting any incorrect option(s) (second option in this case), with or without selection of any correct option(s) will result in –2 marks.

---

1. Let $N = 2^{200}\left({}^{200}C_0\right)\left({}^{200}C_{100}\right) - 2^{198}\left({}^{200}C_1\right)\left({}^{199}C_{99}\right) + 2^{196}\left({}^{200}C_2\right)\left({}^{198}C_{98}\right) - \ldots\ldots + \left({}^{200}C_{100}\right)\left({}^{100}C_0\right)$ then

(A) N is divisible by 100

(B) N is divisible by 10

(C) $N = 3^{101} \times k$ where k is an integer.

(D) N is equal to the number of ways of distributing 200 different objects among 2 persons equally.

Space for Rough Work

2. Number of ways in which 3 digit numbers can be formed using digit 1, 2, 3, ... 8, 9 such that product of digits is divisible by 3 or 5 is (without repetition) a 3 digit number λ, then

(A) all the digits in l are different

(B) all the digits in l are same

(C) λ is divisible by 4

(D) λ is divisible by 3

3. If $|2\sin 2x - 1| + |3\sin 2x - 2| = 1$, $x \in [0, 2\pi]$ then which of the following is/are correct ?

(A) Number of possible values of x is 8

(B) Number of possible values of x is 6

(C) Sum of all possible values of x is 6π

(D) Sum of all possible values of x is greater than 6π

4. The values of x satifying the equation $\log_{3/4}\log_8\left(x^2+7\right)+\log_{\frac{1}{2}}\log_{\frac{1}{4}}\left(x^2+7\right)^{-1}=-\log_3 x^2$ can be

(A) 3 (B) –2 (C) –3 (D) 2

5. A bag contains n white and n black balls. Pairs of balls are drawn from the bag without replacement untill the bag is empty. Probability that each draw consists of one white and one black ball is given by P(n), then-

(A) $P(2)=\frac{2}{3}$ (B) $P(6)=\frac{32}{231}$ (C) $P(2)=\frac{1}{3}$ (D) $P(6)=\frac{16}{231}$

6. The median of a set of 13 observations which are in decreasing order is 18.6. If first two observations are increased by 1 and last three observations decreased by 5, then identify the incorrect option(s) for the median of set of new observations is-

(A) increased by 1

(B) decreased by 1

(C) two times the original median

(D) remains unchanged

Space for Rough Work

SECTION-II : (Maximum Marks: 24)

- This section contains **SIX (06)** questions. The answer to each question is a **NUMERICAL VALUE**.
- For each question, enter the correct numerical value of the answer in the place designated to enter the answer. If the numerical value has more than two decimal places, **truncate/round-off** the value to **Two** decimal places; e.g. 6.25, 7.00, –0.33, –.30, 30.27, –127.30, if answer is 11.36777..... then both 11.36 and 11.37 will be correct)
- Answer to each question will be evaluated according to the following marking scheme:

Full Marks : +4 If ONLY the correct numerical value is entered.

Zero Marks : 0 In all other cases.

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1. Number of rational terms in $(\sqrt[4]{5}+\sqrt[7]{2})^{100}$ is -

2. If in a company there are 30 employees. If each employee send SMS to all other employees by mobile phone, then total number of SMS send are -

3. If $x + \sin y = 9$ and $x + 9\cos y = 8$, $y \in \left[0, \frac{\pi}{2}\right]$, then value of $[x + y]$ is equal to
(where [.] denotes greatest integer function)

4. If solutions of the equation $\left|\log_{\sqrt{3}} x - 2\right| - \left|\log_3 x - 2\right| = 2$ are α and β (where $\beta \in (0, 1)$), then $\alpha + \frac{1}{\beta}$ is equal to

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Space for Rough Work

5. A lady has a purse in which there are four compartments I,II,III & IV. The composition of rupee coin & 50 paise coin are shown in the table. If a coin is randomly selected from the purse and was found to be a rupee coin then the probability that it was selected from the fourth compartment is expressed as $\frac{p}{q}$ (where p & q are co-prime) then (q – p) is

coin / compartment	Rupee coin	50 paise coin
I	2	3
II	3	2
III	4	1
IV	1	4

6. Let $x_1,x_2,.....,x_{100}$ are 100 observations such that $\sum x_i = 0$, $\sum_{1\leqslant i<j\leqslant 100} |x_i x_j| = 80000$ & mean deviation from their mean is 5, then their standard deviation, is-

Space for Rough Work

SECTION-III : (Maximum Marks: 18)

- This section contains **SIX (06)** questions.
- The answer to each question is a **SINGLE DIGIT INTEGER** ranging from 0 to 9, both inclusive.
- For each question, enter the correct integer value of the answer in the place designated to enter the answer.
- For each question, marks will be awarded in one of the following categories :

Full Marks	:	+3	If only the correct answer is given.
Zero Marks	:	0	If no answer is given.
Negative Marks	:	–1	In all other cases

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1. Number of 7 digit numbers in which first four digits are in ascending order and last four digits are in descending order and middle digit is a perfect square, is N, then $\frac{\text{Digit at unit's place in N}}{\text{Digit at thousand's place in N}}$ is equal to

2. The number of integral values of x for which the inequality
$2\cos x \leqslant |\sqrt{1+\sin 2x} - \sqrt{1-\sin 2x}| \leqslant \sqrt{2}$ holds true $x \in [0, 2\pi]$ is ____

3. Number of ordered pair (x, y) which satisfying system of equations
$\log_x (xy) = \log_y x^2$
$y^{2\log_y x} = 4y + 3$, is

4. If the probability that randomly selected point inside area bounded by parabola $y^2 = 8x$ and its latus rectum lies inside the ellipse $\frac{x^2}{2} + \frac{y^2}{16} = 1$ is P then $\frac{16\sqrt{2}P - 2}{\pi}$ is

5. Standard deviation of a set of observations is 8. If each observation is divided by 4, then new standard deviation for the observations will be-

6. $\sqrt[3]{\sum_{r=1}^{n-1} \frac{{}^nC_r}{{}^nC_r + {}^nC_{r+1}}} = \frac{3}{2}$, then n is equal to :-

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Space for Rough Work

Space for Rough Work

Space for Rough Work

NAME OF THE CANDIDATE .....

FORM NO. .....

I have read all the instructions and shall abide by them. _____ Signature of the Candidate	I have verified the identity, name and Form number of the candidate, and that question paper and ORS codes are the same. _____ Signature of the Invigilator

Space for Rough Work