FIITJEE (JEE-Advanced)

PHYSICS, CHEMISTRY & MATHEMATICS

QP Code:

RIT- 6

Time Allotted: 3 Hours **Maximum Marks: 183**

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. All the section can be filled in **PART-A** of OMR.
5. Rough spaces are provided for rough work inside the question paper. No additional sheets will be provided for rough work.
6. Blank Papers, clip boards, log tables, slide rule, calculator, cellular phones, pagers and electronic devices, in any form, are not allowed.

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.

C. Marking Scheme For Only One Part.

(i) **Part-A (01-07) –** Contains seven (07) multiple choice questions which have ONLY ONE CORRECT answer Each question carries **+3 marks** for correct answer and **-1 marks** for wrong answer.

(ii) **Part-A (08-14) –** Contains seven (07) multiple choice questions which have **One or More** correct answer.
Full Marks: **+4** If only the bubble(s) corresponding to all the correct options(s) is (are) darkened.
Partial Marks: **+1** For darkening a bubble corresponding **to each correct option,** provided NO incorrect option is darkened.
Zero Marks: **0** If none of the bubbles is darkened.
***Negative Marks*: –2 In all other cases**.
For example, if **(A), (C) and (D)** are all the correct options for a question, darkening all these three will result in **+4 marks**; darkening only **(A) and (D)** will result in **+2 marks**; and darkening **(A) and (B)** will result in **–2** marks, as a wrong option is also darkened.

(iii) **Part-A (15-18) -** This section contains Two paragraphs. Based on each paragraph, there are Two multiple choice questions. Each question has only one correct answer and carries **+3 marks** for the correct answer and **-1 marks** for wrong answer.

Name of the Candidate :_____

Batch :_____ **Date of Examination :**_____
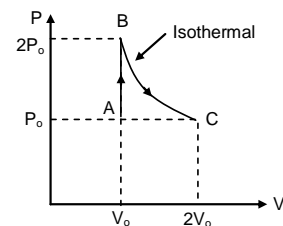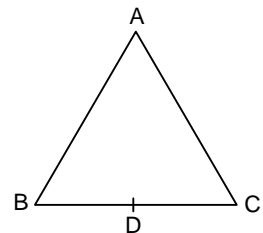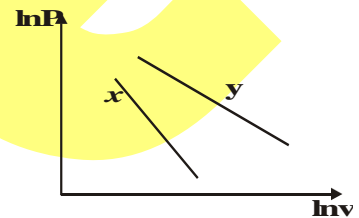
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SECTION-1 : PHYSICS

PART – A

(Single Correct Choice Type)

This section contains **7 multiple choice questions**. Each question has four choices (A), (B), (C) and (D) out of which **ONLY ONE is correct.**

1. 840 J of heat is required to raise the temperature of 2g moles of an ideal gas from 20°C to 40°C at constant pressure. The amount of heat required to raise the temperature of the same gas from 40°C to 60°C at constant volume is (take R = 8.4 J g mole^{-1} k^{-1})
   (A) 504 J   (B) 420 J   (C) 840 J   (D) 630 J

2. A Carnot's engine working between 27°C and 127°C has a work output of 200 J per cycle. The energy supplied to the engine from the source in each cycle is
   (A) 400 J   (B) 800 J
   (C) 600 J   (D) 500 J

3. For two different gases X and Y, having degrees of freedom f_1 and f_2 and molar heat capacities at constant volume C_{v_1} and C_{v_2} respectively, for adiabatic process, the ln P versus ln V graph is plotted as shown, then
   (A) $f_1 > f_2$
   (B) $f_2 > f_1$
   (C) Constant temperature
   (D) $C_{v_1} > C_{v_2}$

4. Three metal rods of the same length and area of cross-section form an equilateral triangle as shown in figure D is the mid-point of side BC. If AD is independent for small change in temperature, then (α_1 is the coefficient of linear expansion for rod BC and α_2 for rods AB and AC)

   (A) $\alpha_1 = 2\alpha_2$ (B) $\alpha_1 = \dfrac{\alpha_2}{2}$

   (C) $\alpha_2 = \alpha_1$ (D) $\alpha_1 = 4\alpha_2$

5. A diatomic ideal gas undergoes a thermodynamic change according to the P-V diagram shown in the figure. The total heat given to the gas is nearly:
   (A) 2.5 P_oV_o (B) 1.4 P_oV_o
   (C) 3.9 P_oV_o (D) 1.1 P_oV_o

Space For Rough Work

6. 2 kg of ice at –20°C is mixed with 5 kg of water at 20°C in an insulating vessel having negligible heat capacity. Calculate the final mass of water remaining in the container. It is given that the specific heats of water and ice are 1 kcal/kg/°C and 0.5 kcal/kg/°C respectively, while the latent heat of fusion of ice is 80 kcal/kg
(A) 7 kg   (B) 6 kg   (C) 4 kg   (D) 2 kg

7. P-T diagram is shown below. Choose the corresponding V-T diagram.
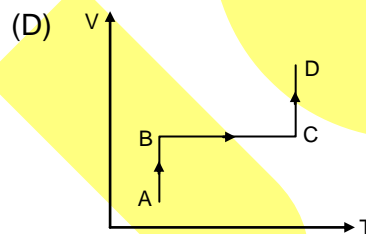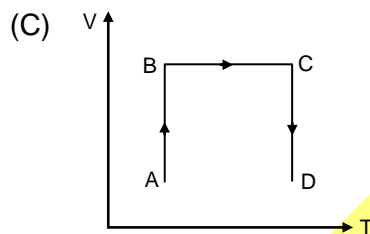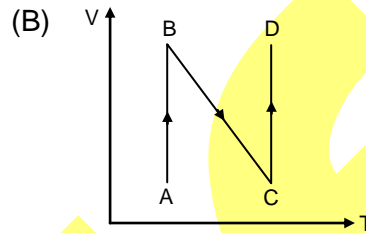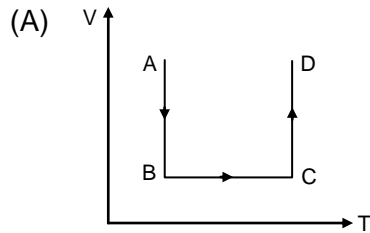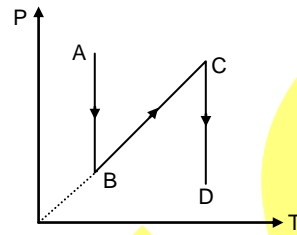
(A)

(B)

(C)

(D)

(Multi Correct Choice Type)
This section contains 7 **multiple choice questions.** Each question has four choices (A), (B), (C) and (D) out of which **ONE OR MORE** may be correct.
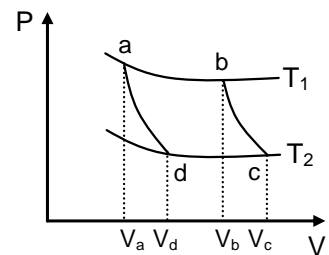
8. Two adiabatic processes bc and ad for the same gas are given to intersect two isotherms at T_1 and T_2 (as shown). Then

(A) $\dfrac{V_a}{V_b} = \dfrac{T_2}{T_1}$

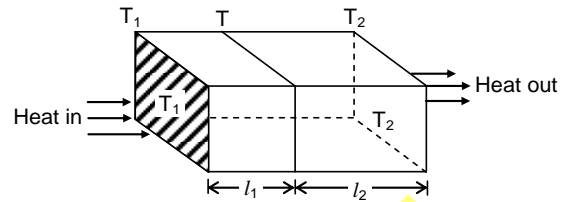(B) $\dfrac{V_a}{V_b} = \dfrac{T_1}{T_2}$

(C) $\dfrac{V_b}{V_c} = \left(\dfrac{T_2}{T_1}\right)^{\frac{1}{\gamma-1}}$

(D) $V_aV_c = V_bV_d$

Space For Rough Work

9. Two plates thickness l_1 and l_2 with thermal conductivities K_1 and K_2 respectively are kept in thermal contact as shown in the figure. If A is area of each face, then mark the correct options.


(A) Thermal resistance of combination is $R = \dfrac{l_1}{AK_1} + \dfrac{l_2}{AK_2}$

(B) Heat flow rate through the combination is $H = \dfrac{A(T_1 - T_2)}{\left(\dfrac{l_1}{K_1} + \dfrac{l_2}{K_2}\right)}$

(C) Temperature of joint of slabs is $T = \dfrac{T_1 \dfrac{l_2}{K_2} + T_2 \dfrac{l_1}{K_1}}{\left(\dfrac{l_1}{K_1} + \dfrac{l_2}{K_2}\right)}$

(D) Equivalent thermal conductivity; of combination will be $K_{eq} = \dfrac{l_1 + l_2}{\left(\dfrac{l_1}{K_1} + \dfrac{l_2}{K_2}\right)}$

10. n moles of an ideal gas undergo an isothermal process at temperature T. P-V graph of the process is as shown in the figure. A point A (V_1, P_1) is located on the P-V curve. Tangent at point A, cuts the V-axis at point D. AO is the line joining the point A to the origin O of PV diagram. Then,
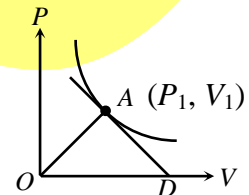
(A) coordinates of points D is $\left(\dfrac{3V_1}{2}, 0\right)$

(B) coordinates of points D is $(2V_1, 0)$

(C) area of the triangle AOD is nRT

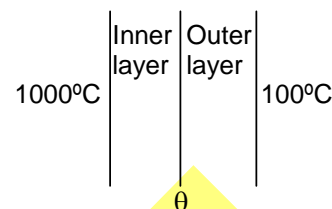(D) area of the triangle AOD is $\dfrac{3}{4}$nRT

11. Figure shows intensity vs wavelength graph of a black body at temperatures T_1, T_2 & T_3. Suppose area under these graphs are A_1, A_2 and A_3 respectively. Then we have
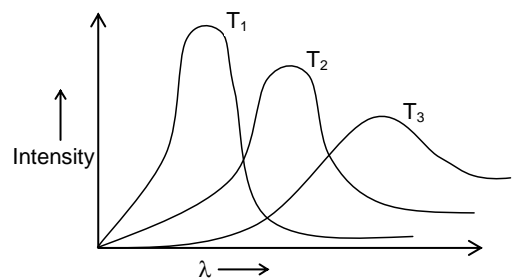
(A) $T_1 > T_2 > T_3$
(B) $T_1 < T_2 < T_3$
(C) $A_1 : A_2 : A_3 = T_1^2 : T_2^2 : T_3^2$
(D) $A_1 : A_2 : A_3 = T_1^4 : T_2^4 : T_3^4$

Space For Rough Work

12. The temperature drop through a two layers furnace wall is 900°C. Each layer is of equal area of cross-section. Which of the following actions will result in lowering the temperature θ of the interface?
    (A) by increasing the thermal conductivity of outer layer
    (B) by increasing the thermal conductivity of inner layer
    (C) by increasing thickness of outer layer
    (D) by increasing thickness of inner layer

13. A monoatomic gas undergoes a process given by 2dU + 3dW = 0 (where dU = charge in internal energy, dW = work done by the gas) then
    (A) VT = constant   (B) PV = constant
    (C) PV^2 = constant   (D) $PV^{5/3}$ = constant

14. A black body emits radiation at the rate P when its temperature is T. At this temperature the wavelength at which the radiation has maximum intensity is λ_0. If at another temperature T′ the power radiated is P′ and wavelength at maximum intensity is $\dfrac{\lambda_0}{2}$ then

    (A) T′ = 2T   (B) $T' = \dfrac{T}{2}$ (C) P′ = 16P   (D) $P' = \dfrac{P}{16}$

(Paragraph Type)

This section contains **2 paragraphs**. Based upon the paragraphs **2 multiple choice questions** have to be answered. Each of these questions has 4 choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

Paragraph for Question no. 15 to 16

Both ends of an aluminum rod of length 20 cm and cross-sectional area 4 cm² are maintained at a temperature 0°C. Thermal conductivity of aluminum is 205 W / (m-k). The initial distribution of temperature along the rod can be expressed as T = 75 sin (15.7x)°C. Here, length of the rod has been considered to be along the x direction and one of the ends as the origin so that 'x' in the initial temperature distribution equation refers to the x position of any point on the rod. Also the angle in the sine term is in radian provided that x is expressed in the SI system. (x > 0).

15. Initial temperature distribution along the length of the rid is given above. Final temperature distribution, after a long time, can be expressed as

    (A) T = 75 cos(15.7x)°C   (B) T = 25°C

    (C) T = 75 tan(15.7x)°C   (D) T = 0°C

16. Initially, the rate of heat flow at any end will be

    (A) 0   (B) 96.5 W

    (C) 124.5 W   (D) 32.5 W

Space For Rough Work

Paragraph for Question no. 17 to 18

For a certain thermodynamic cycle undergone by an ideal gas the variation of internal energy (U) with pressure (P) is as shown in the figure.
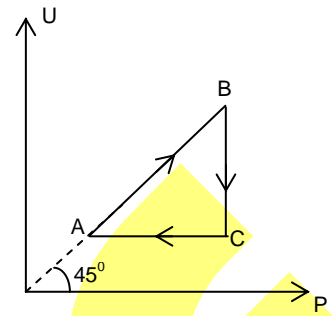
17.　Here the process $A \to B$ must be
　　(A) isothermal　　　　　　　　　(B) Isochoric
　　(C) adiabatic　　　　　　　　　　(D) none of these

18.　The V-T diagram for the process will look as
　　(A)

　　(B)

　　(C)

　　(D)

Space For Rough Work

SECTION-2 : CHEMITRY
PART – A
(Single Correct Choice Type)
This section contains **7 multiple choice questions**. Each question has four choices (A), (B), (C) and (D) out of which **ONLY ONE is correct.**

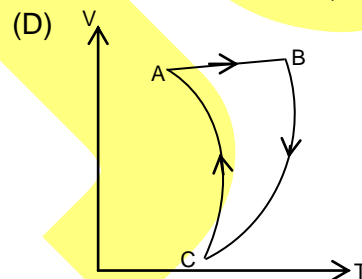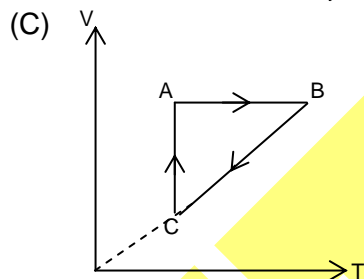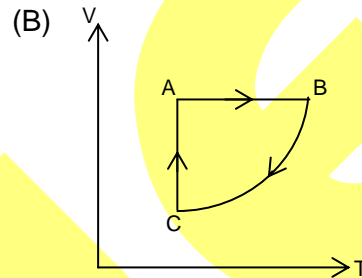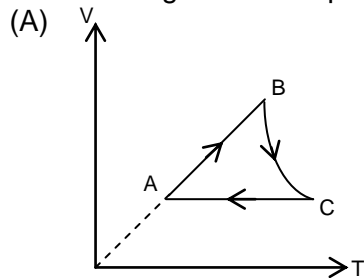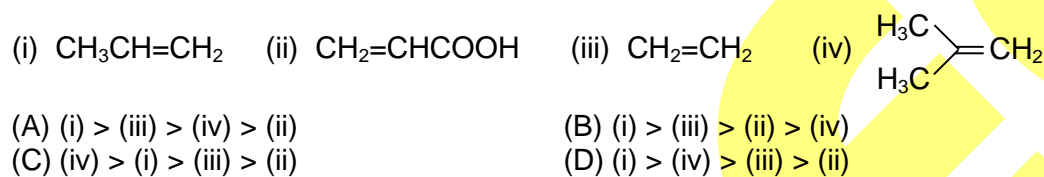1. The dehydrohalogenation of 2−bromobutane with alcoholic KOH gives
   (A) only 2−butene
   (B) only 1−butene
   (C) 2−butene as the major product
   (D) 1−butene as the major product

2. The order of reactivity of the following alkenes towards electrophilic attack is

   (i) $CH_3CH=CH_2$ (ii) $CH_2=CHCOOH$ (iii) $CH_2=CH_2$ (iv) $\begin{array}{c}H_3C \\ H_3C\end{array}C=CH_2$

   (A) (i) > (iii) > (iv) > (ii)
   (B) (i) > (iii) > (ii) > (iv)
   (C) (iv) > (i) > (iii) > (ii)
   (D) (i) > (iv) > (iii) > (ii)

3. From the following reactions

   $$HC \equiv CH + LiNH_2 \longrightarrow NH_3 + HC \equiv CLi$$
   $$HC \equiv CLi + H_2O \longrightarrow HC \equiv CH + LiOH$$

   predict which of the following order of basic strength is correct?
   (A) $HC \equiv C^- < OH^- < NH_2^-$
   (B) $HC \equiv C^- < NH_2^- < OH^-$
   (C) $OH^- < NH_2^- < HC \equiv C^-$
   (D) $OH^- < HC \equiv C^- < NH_2^-$

4.
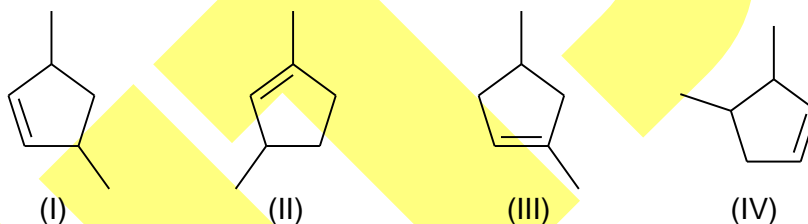
       (I)   (II)   (III)   (IV)
   Arrange the above hydrocarbons in decreasing order of their heat of hydrogenation?
   (A) I > III > IV > II
   (B) III > II > IV > I
   (C) I > IV > II > III
   (D) III > II > I > IV

5. Molecular formula of an open chain compound(X) is C_8H_{14}. It decolorizes bromine water. On reductive ozonolysis it forms acetaldehyde and butan – 1, 4 – dial in the molar ratio 2 : 1. How many allylic carbon atoms are present in one molecule of (X)?
   (A) 3
   (B) 4
   (C) 6
   (D) 8

Space For Rough Work

6. $CH_3CH_2C \equiv CH \longrightarrow CH_3C \equiv CCH_3$. The above transformation can be carried out by
   (A) Na/liq.NH$_3$ (B) Alc KOH/heat
   (C) NaNH$_2$/liq.NH$_3$ (D) H$_2$/Ni

7. Which of the following is a biodegradable pollutant?
   (A) Polythene   (B) DDT
   (C) Long chain phenolic alcohols   (D) Cellulose

(Multi Correct Choice Type)

This section contains 7 **multiple choice questions.** Each question has four choices (A), (B), (C) and (D) out of which **ONE OR MORE** may be correct.

8. Which of the following alkane(s) cannot be synthesized by the Wurtz reaction in good yield?
   (A) $(CH_3)_2CHCH_2CH(CH_3)_2$ (B) $(CH_3)_3CCH_2CH_2CH_2CH_3$
   (C) $CH_3CH_2CH_2CH_3$ (D) $(CH_3)_2CHCH_2CH_2CH(CH_3)_2$

9. When $CH_2 = CH - Br$ is reacted with HBr then the product formed is A and when $CH_2 = CH - COOH$ is treated with HBr then the product formed is C. Hence here

   (A) A is $\underset{\underset{Br \quad Br}{|\qquad|}}{CH_2-CH_2}$

   (B) A is $CH_3-CH\underset{\diagdown Br}{\overset{\diagup Br}{}}$

   (C) C is $\underset{\underset{Br}{|}}{CH_3-CH-COOH}$

   (D) C is $\underset{\underset{Br}{|}}{CH_2-CH_2-COOH}$

10. Which of the following reaction(s) take place during lightening in high altitudes?
    (A) $N_2 (g) + O_2 (g) \rightarrow 2\ NO (g)$ (B) $2\ NO (g) + O_2 (g) \rightarrow 2\ NO_2 (g)$
    (C) $NO_2(g) + NO(g) \rightarrow N_2O_3(l)$ (D) $2NO_2(g) \rightarrow N_2O_4(s)$

11. Which of the following climate favours formation of photochemical smog?
    (A) warm climate   (B) dry climate
    (C) sunny climate   (D) humid climate

12. $CH_3CH_2CH_3 \xrightarrow[400^oC]{HNO_3}$ Product

    Which nitroalkanes are formed in above reaction?
    (A) $CH_3CH_2NO_2$ (B) $CH_3CH_2CH_2NO_2$
    (C) $\underset{\underset{NO_2}{|}}{CH_3CHCH_3}$ (D) CH_3NO_2

13. Which of the following form a precipitate with lowest alkyne?
    (A) Na   (B) Tollen's reagent
    (C) CuCl/NH$_4$OH   (D) CuCl/NH$_4$Cl

Space For Rough Work

14. Acid rain is caused by
(A) CO (B) NO_2
(C) SO_2 (D) N_2O
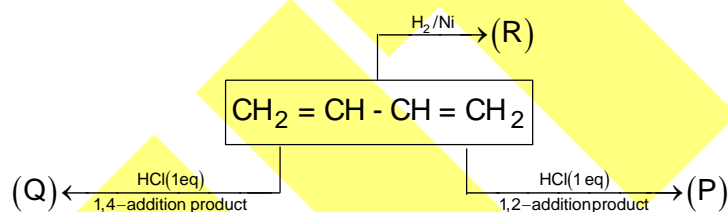
(Paragraph Type)

This section contains **2 paragraphs**. Based upon the paragraphs **2 multiple choice questions** have to be answered. Each of these questions has 4 choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

Paragraph for Question no. 15 to 16

An internal alkyne(P) with formula C_4H_6 reacts with $NaNH_2$ to form a sodium salt of terminal alkyne(Q). (Q) reacts with C_2H_5Br to form(R). Reaction of (R) with excess HCl forms (S)

Answer the following questions on the basis of above write up.

15. How many moles of $NaNH_2$ is needed to convert one mole of (P) to one mole of (Q)?
(A) 1   (B) 2
(C) 2.5   (D) 1.5

16. What is the structure of 'S'?

(A) $CH_3CH_2CH_2\underset{\underset{\displaystyle Cl}{|}}{C}H\underset{\underset{\displaystyle Cl}{|}}{C}HCH_3$

(B) $CH_3CH_2\underset{\underset{\displaystyle Cl}{|}}{C}H\underset{\underset{\displaystyle Cl}{|}}{C}HCH_2CH_3$

(C) $CH_3CH_2CH_2\overset{\overset{\displaystyle Cl}{|}}{\underset{\underset{\displaystyle Cl}{|}}{C}}CH_2CH_3$

(D) $CH_3CH_2CH_2CH_2\overset{\overset{\displaystyle Cl}{|}}{\underset{\underset{\displaystyle Cl}{|}}{C}}CH_3$

Paragraph for Question no. 17 to 18

$$CH_2 = CH - CH = CH_2$$

$\xrightarrow{H_2/Ni} (R)$

$(Q) \xleftarrow[\text{1,4--addition product}]{HCl(1eq)}$

$\xrightarrow[\text{1,2--addition product}]{HCl(1\ eq)} (P)$

Answer the following questions on the basis of above reaction and consider the major products.

17. Choose the correct statement.
(A) (Q) shows optical isomerism
(B) (P) shows geometrical isomerism
(C) (P) can form more stable carbonium ion, upon removal of chlorine by ionization, as compared to (Q)
(D) (P) and (Q) are functional isomers

18. Which of the following statements is correct regarding the product(R)?
(A) It undergoes substitution reaction
(B) It forms alkene when reacts with alcoholic KOH
(C) It is the functional isomer of (Q)
(D) It's chain isomser boils at higher temperature than it

Space For Rough Work

<u>SECTION-3 : MATHEMATICS</u>
PART – A
(Single Correct Choice Type)

This section contains **7 multiple choice questions**. Each question has four choices (A), (B), (C) and (D) out of which **ONLY ONE is correct.**

1. In – radius of a circle which is inscribed in a isosceles triangle one of whose angle is $\frac{2\pi}{3}$ is $\sqrt{3}$, then area of triangle (in sq. units) is

   (A) $4\sqrt{3}$
   (B) $12 - 7\sqrt{3}$
   (C) $12 + 7\sqrt{3}$
   (D) None of these

2. Let ABC be a triangle such that $\angle ACB = \frac{\pi}{6}$. If a, b and c denote the lengths of the sides opposite to A, B and C, respectively. Then, the value(s) of x for which $a = x^2 + x + 1, b = x^2 - 1$ and $c = 2x + 1$ is (are)

   (A) $-\left(2 + \sqrt{3}\right)$
   (B) $1 + \sqrt{3}$
   (C) $2 + \sqrt{3}$
   (D) $4\sqrt{3}$

3. The straight line $(1 + 2i)z + (2i - 1)\bar{z} = 10i$ on the complex plane, has intercept on the imaginary axis equal to:

   (A) 5
   (B) $\frac{5}{2}$
   (C) $-\frac{5}{2}$
   (D) –5

4. Let z be a non – real complex number with $z^{23} = 1$. Then $\sum_{k=0}^{22} \frac{3}{1 + z^k + z^{2k}}$ equals

   (A) 42
   (B) 44
   (C) 46
   (D) 48

5. Let $z_1 = 3$ and $z_2 = 7$ represent two points A and B respectively on complex plane. Let the curve C_1 be the locus of points P(z) satisfying $\left|z - z_1\right|^2 + \left|z - z_2\right|^2 = 10$ and the curve C_2 be the locus of points P (z) satisfying $\left|z - z_1\right|^2 + \left|z - z_2\right|^2 = 16$. Least distance between curves C_1 and C_2 is

   (A) 2
   (B) 1
   (C) 4
   (D) 3

Space For Rough Work

6. If z is a complex number satisfying the equation $|z+i|+|z-i|=8$, on the complex plane then maximum value of $|z|$ is

(A) 2   (B) 4
(C) 6   (D) 8

7. For positive integers n_1, n_2 the value of the expression $(1+i)^{n_1}+\left(1+i^3\right)^{n_1}+\left(1+i^5\right)^{n_2}+\left(1+i^7\right)^{n_2}$,

where $i=\sqrt{-1}$ is a real number if and only if:
(A) $n_1 = n_2 + 1$ (B) $n_1 = n_2 - 1$
(C) $n_1 = n_2$ (D) $n_1 > 0, n_2 > 0$

(Multi Correct Choice Type)

This section contains 7 **multiple choice questions.** Each question has four choices (A), (B), (C) and (D) out of which **ONE OR MORE** may be correct.

8. If $|z|=1$ and 'a' and 'b' respectively are the minimum and maximum values of

$\left|1+z\right|+\left|1-z+z^2\right|$, then

(A) $a=\sqrt{3}$ (B) $a=\sqrt{2}+1$

(C) $b=3$ (D) $b=\dfrac{13}{4}$

9. Let $S_n(x)=\sum_{k=0}^{n}{}^{n}C_k \sin(kx)\cos\left[(n-k)x\right]$, then

(A) $S_5\left(\dfrac{\pi}{2}\right)=16$ (B) $S_7\left(\dfrac{\pi}{2}\right)=-64$

(C) $S_{100}(\pi)=0$ (D) $S_{101}(\pi)=2^{100}$

10. Let $n=3^{100}$, then for n:
(A) unit's digit is 1   (B) ten's digit is 0
(C) unit's digit is 7   (D) ten's digit is 2

11. Which of the following must hold good(s) for the expansion of the binomial $\left(x^4+\dfrac{1}{x^3}\right)^{15}$?

(A) There exist a term which is independent of x.
(B) 8th and 9th terms of the expansion have the greatest binomial coefficient.
(C) Coefficient of x^{32} and x^{-17} are equal.
(D) If $x=\sqrt{2}$ then number of rational terms in the expansion is 5.

Space For Rough Work

12. Let points $P(z_1), Q(z_2)$ and $R(z_3)$ be three points in argand plane such that
$|z_1 + z_2| = |z_1| - |z_2|$ and $|(1-i)z_1 + iz_3| = |z_1| + |z_3 - z_1|$, then
(A) $|z_2 - z_3| = |z_2 + z_3 - 2z_1|$
(B) P, Q, R are vertices of right angled triangle
(C) P, Q, R are vertices of equilateral triangle
(D) P, Q, R lie on circle with radius $\dfrac{1}{2}|z_3 - z_2|$

13. Which of the following pieces of data uniquely determine an acute–angled triangle ABC(R being the radius of the circumcircle)?
(A) $a, \sin A, \sin B$ (B) a, b, c
(C) $a, \sin B, R$ (D) $a, \sin A, R$

14. Let $A(z_1), B(z_2), C(z_3), D(z_4)$ be four distinct points in complex plane such that
$2|z_4 - z_1| = |z_4 - z_2| + |z_4 - z_3|$, $2|z_4 - z_2| = |z_4 - z_1| + |z_4 - z_3|$
$2|z_4 - z_3| = |z_4 - z_1| + |z_4 - z_2|$ and $\dfrac{z_4 - z_1}{z_3 - z_2}$ is purely imaginary, then

(A) $\dfrac{z_4 - z_2}{z_3 - z_1}$ is purely real   (B) $\dfrac{z_4 - z_3}{z_2 - z_1}$ is purely imaginary
(C) $3z_4 = z_1 + z_2 + z_3$ (D) $|z_4 - z_1| = |z_4 - z_2|$

(Paragraph Type)

This section contains **2 paragraphs**. Based upon the paragraphs **2 multiple choice questions** have to be answered. Each of these questions has 4 choices (A), (B), (C) and (D) out of which **ONLY ONE** is correct.

Paragraph for Question no. 15 to 16

Let A, B, C be three sets of complex numbers as defined below.

$$A = \left\{z : |z+1| \le 2 + \text{Re}(z)\right\}, \ B = \left\{z : |z-1| \ge 1\right\} \text{ and } C = \left\{z : \left|\dfrac{z-1}{z+1}\right| \ge 1\right\}$$

15. The number of point(s) having integral coordinates in the region $A \cap B \cap C$ is
(A) 4   (B) 5
(C) 6   (D) 10

Space For Rough Work

16. The real part of the complex number in the region $A \cap B \cap C$ and having maximum amplitude is

(A) -1

(B) $\dfrac{-3}{2}$

(C) $\dfrac{1}{2}$

(D) -2

Paragraph for Question no. 17 to 18

Let $C_r = \begin{pmatrix} 21 \\ r \end{pmatrix}$ then

17. $\displaystyle\sum_{r=0}^{5} C_{4r} =$

(A) 2^9

(B) 2^{19}

(C) $2^{19} - 2^9$

(D) $2^{19} + 2^9$

18. $\displaystyle\sum_{r=0}^{7} C_{3r} =$

(A) $2^{21} + 2$

(B) $2^{21} - 2$

(C) $\dfrac{2}{3}\left(2^{20} + 1\right)$

(D) $\dfrac{2}{3}\left(2^{20} - 1\right)$

Space For Rough Work

FIITJEE INTERNAL TEST

BATCHES: Two Year CRP-2325
RIT – 6

PHYSICS, CHEMISTRY & MATHEMATICS

ANSWER KEY

Paper Code

SECTION-1 : PHYSICS
PART – A

1.	A	2.	B	3.	B	4.	D
5.	C	6.	B	7.	D	8.	CD
9.	ABCD	10.	BC	11.	AD	12.	AD
13.	AC	14.	AC	15.	D	16.	B
17.	B	18.	C				

SECTION – 2 : CHEMISTRY
PART – A

1.	C	2.	C	3.	D	4.	C
5.	B	6.	B	7.	D	8.	AB
9.	BD	10.	ABC	11.	ABC	12.	ABCD
13.	BC	14.	BC	15.	B	16.	C
17.	C	18.	A				

SECTION – 3 : MATHEMATICS
PART – A

1.	C	2.	B	3.	A	4.	C
5.	B	6.	B	7.	D	8.	AD
9.	ABC	10.	AB	11.	BC	12.	ABD
13.	ABC	14.	BCD	15.	B	16.	B
17.	C	18.	D				