

**PHYSICS, CHEMISTRY & MATHEMATICS**

Pattern - CPT-1

QP Code:

PAPER - 2

Time Allotted: 3 Hours

Maximum Marks: 183

- Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.
- You are not allowed to leave the Examination Hall before the end of the test.

**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 **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: -1 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 **-1 marks**, as a wrong option is also darkened.
- (ii) **Part-A (08-14)** – 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.
- (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 : \_\_\_\_\_

Enrolment Number : \_\_\_\_\_

BATCHES – NWCM2022X1R, NWCM2022X1W, Y1W,Z1W\_PT1

# SECTION-1 : PHYSICS

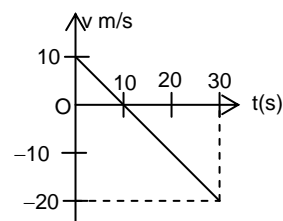
## PART – A

### (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.

1. The velocity-time graph for a particle moving on a straight line is shown in figure.

- (A) the particle has constt. acceleration  
 (B) the particle has never turned around  
 (C) the particle has zero displacement  
 (D) the average speed in the interval 0 to 10 s is the same as the average speed in the interval 10 s to 20 s.

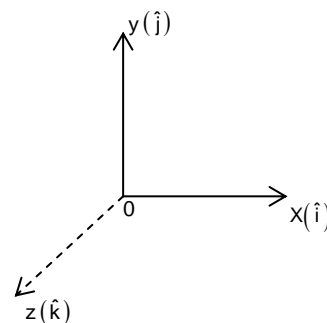


2. If the kinetic energy of a body is directly proportional to time 't', the magnitude of the force acting on the body is

- (A) directly proportional to  $\sqrt{t}$   
 (B) inversely proportional to  $\sqrt{t}$   
 (C) directly proportional to the speed of the body  
 (D) inversely proportional to the speed of the body

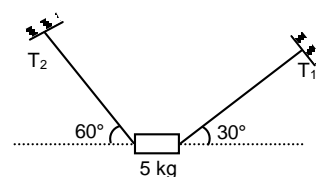
3. A particle is projected from origin with velocity  $\vec{u} = (\hat{i} + \hat{j} + \sqrt{2}\hat{k})$  m/s. Horizontal surface lies in X – Y plane, then (take  $g = 10$  m/sec<sup>2</sup>)

- (A) Time of flight =  $\frac{\sqrt{2}}{5}$  sec  
 (B) horizontal range =  $\frac{2}{5}$  m  
 (C) Maximum height =  $\frac{1}{10}$  m  
 (D) Maximum height =  $\frac{1}{5}$  m



4. A body of mass 5 kg is suspended by the strings making angles 60° and 30° with the horizontal as shown in the figure ( $g = 10$  ms<sup>-2</sup>). Then

- (A)  $T_1 = 25$  N  
 (B)  $T_2 = 25$  N  
 (C)  $T_1 = 25\sqrt{3}$  N  
 (D)  $T_2 = 25\sqrt{3}$  N



5. The force exerted by the floor of an elevator on the foot of a person standing there is more than the weight of the person if the elevator is

- (A) going up and slowing down  
 (B) going up and speeding up  
 (C) going down and slowing down  
 (D) going down and speeding up.

6. A man is standing on a weighing machine with a block in his hand. The machine records  $W$ . When he takes the blocks upwards with some acceleration the machine records  $W_1$ . When he takes the blocks down with some acceleration, the machine records  $W_2$ . Then choose incorrect option.

- (A)  $W_1 = W = W_2$   
 (B)  $W_1 < W < W_2$   
 (C)  $W_2 < W < W_1$   
 (D)  $W_2 = W_1 > W$

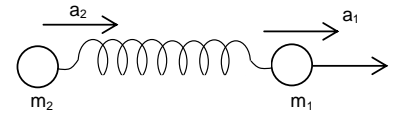
7. A spring connects two particles  $m_1$  and  $m_2$  horizontal force  $F$  acts on  $m_1$  shown in figure. When the elongation of the spring is  $x$  then

(A)  $a_2 = \frac{kx}{m_2}$

(B)  $a_1 = \frac{F - kx}{m_1}$

(C)  $F = m_1 a_1 + m_2 a_2$

(D)  $a_1 = a_2 = \frac{F}{m_1 + m_2}$  at the maximum elongation of spring



**(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**.

8. A vector of magnitude  $a$  is turned through angle  $\theta$ . The magnitude of change in the vector is given by

(A)  $|2a \sin \theta|$

(B)  $|2a \sin(\theta/2)|$

(C)  $\left| \frac{a}{2} \sin \theta \right|$

(D)  $\left| \frac{a}{2} \sin \left( \frac{\theta}{2} \right) \right|$

9. A force  $F = -k(y\hat{i} + x\hat{j})$  where  $k$  is a positive constant acts on a particle moving in the  $xy$  plane. Starting from the origin, the particle is taken along the 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  $F$  on the particle is

(A)  $-2Ka^2$

(B)  $2Ka^2$

(C)  $-Ka^2$

(D)  $Ka^2$

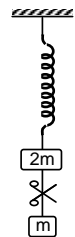
10. System shown in figure is in equilibrium and at rest. The spring and string are massless, now the string is cut. The acceleration of mass  $2m$  and  $m$  just after the string is cut will be

(A)  $g/2$  upwards,  $g$  downwards

(B)  $g$  upwards,  $g/2$  downwards

(C)  $g$  upwards,  $2g$  downwards

(D)  $2g$  upwards,  $g$  downwards



11. A particle is thrown from ground level with an initial velocity  $4\hat{i} + 3\hat{j}$ . Its range on horizontal ground is (The origin is taken at point of projection,  $x$  – axis along the ground and  $y$  – axis perpendicular to the ground)  $g = 10 \text{ m/s}^2$

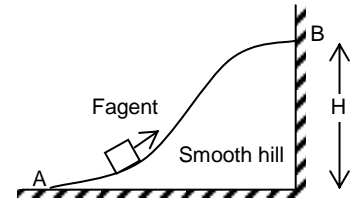
(A) 1.2 m

(B) 2.4 m

(C) 4.8 m

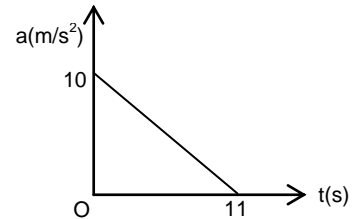
(D) 3.6 m

12. A external agent moves the block  $m$  slowly from A to B, along a smooth hill such that every time he applies the force tangentially. Find the work done by agent in this interval.
- (A)  $\frac{m^2g^2H^2}{L}$  (B)  $\frac{mgH^2}{L}$   
 (C)  $mg(H+L)$  (D)  $mgH$



13. 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
- (A) 0 (B)  $\frac{17}{3}$  (C) 6 (D)  $\frac{16}{3}$

14. A particle starts from rest. Its  $a$ - $t$  graph is as shown in the figure. The maximum speed of the particle will be
- (A) 110 m/s (B) 55 m/s  
 (C) 550 m/s (D) 660 m/s

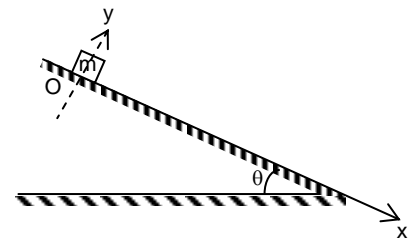


### (Paragraph Type)

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

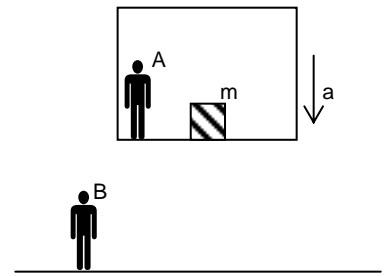
In the adjacent figure,  $x$  axis has been taken down the inclined plane. The coefficient of friction varies with  $x$  as  $\mu = kx$ , where  $k = \tan\theta$ . A block is released at  $O$ .



15. The maximum velocity of block will be
- (A)  $\sqrt{g}$  (B)  $\sqrt{g \sin \theta}$   
 (C)  $\sqrt{g \cos \theta}$  (D)  $\sqrt{g \tan \theta}$
16. Maximum distance travelled by the block
- (A) 1m (B) 2m  
 (C) 3m (D)  $\frac{1}{2}$ m

## Paragraph for Question no. 17 to 18

A block of mass  $m$  is kept in an elevator which starts moving downward with an acceleration  $a$  as shown in figure. The block is observed by two observers A and B for a time interval  $t_0$ . B is in rest with respect to ground.

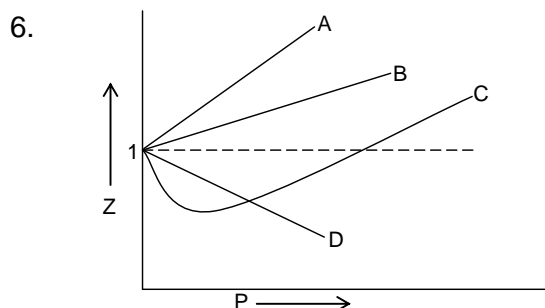


17. The observer B finds that the work done by gravity on the block is
- (A)  $\frac{1}{2}mg^2t_0^2$   
 (B)  $-\frac{1}{2}mg^2t_0^2$   
 (C)  $\frac{1}{2}mgat_0^2$   
 (D)  $-\frac{1}{2}mgat_0^2$
18. The observer B finds that the work done by Pseudo force on the block is
- (A) zero  
 (B)  $-ma^2t_0$   
 (C)  $ma^2t_0$   
 (D)  $-mgat_0$

**SECTION-2 : CHEMISTRY****PART – A****(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.

- Which of the following pair of species have same number of unpaired electrons?  
 (A) Fe and Fe<sup>2+</sup> (B) Fe<sup>+</sup> and Fe<sup>3+</sup>  
 (C) Fe<sup>2+</sup> and Fe<sup>4+</sup> (D) Fe and Fe<sup>3+</sup>  
 1. ABC
- Which of the following statement(s) is/are correct for PCl<sub>5</sub>?  
 (A) Phosphorus undergoes sp<sup>3</sup>d hybridization.  
 (B) Two sets of P–Cl bond length are observed in the molecule  
 (C) It's solid contains [PCl<sub>4</sub>]<sup>+</sup> and [PCl<sub>6</sub>]<sup>-</sup> ions  
 (D) The maximum value of ∠ClPCl angle is 120°.   
 2. ABC
- According to Aufbau principle, which quantum number(s) is/are used to decide the filling up of electrons in atomic orbitals?  
 (A) principal quantum number (B) Azimuthal quantum number  
 (C) Magnetic quantum number (D) Spin quantum number  
 3. AB
- Which of the following expression(s) is/are correct for gases which deviate from ideal behaviour at extremely high pressure?  
 (A) PV = Pb + RT (B) a ≈ 0  
 (C) PV > n RT (D) Z > 1  
 4. ABCD
- Which of the following statement(s) is/are correct for the following reaction?  
 $(\text{NH}_4)_2\text{Cr}_2\text{O}_7 \xrightarrow{\Delta} \text{Cr}_2\text{O}_3 + \text{N}_2 + 4\text{H}_2\text{O}$   
 (A) It is an intramolecular redox reaction  
 (B) The n-factor of (NH<sub>4</sub>)<sub>2</sub>Cr<sub>2</sub>O<sub>7</sub> is 6  
 (C) It is a decomposition reaction  
 (D) 'N' atom is oxidized from -3 oxidation state to +3 oxidation state  
 5. ABC



In the above figure the first two gases having lower values of 'a' are

- (A) A (B) B  
 (C) C (D) D  
 6. AB

7. Which of the following is/are disproportionation reaction(s)?  
 (A)  $2\text{H}_2\text{O}_2 \longrightarrow 2\text{H}_2\text{O} + \text{O}_2$  (B)  $2\text{KClO}_3 \longrightarrow 2\text{KCl} + 3\text{O}_2$   
 (C)  $2\text{H}_2\text{S} + \text{SO}_2 \longrightarrow 3\text{S} + 2\text{H}_2\text{O}$  (D)  $\text{Cl}_2 + 2\text{NaOH} \longrightarrow \text{NaCl} + \text{NaOCl} + \text{H}_2\text{O}$
7. AD

**(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**.

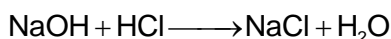
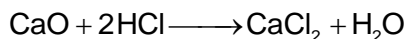
8. For which of the following orbit of hydrogen atom  $\psi^2$  has maximum value?  
 (A)  $n = 1$  (B)  $n = 2$   
 (C)  $n = 4$  (D)  $n = 5$
8. A
9. The non-bonding electrons of a molecule  
 (A) are considered to find bond order  
 (B) can be delocalized if suitable situation arises  
 (C) have energy higher than the antibonding electrons which are formed by combination of orbitals of same sub-shell  
 (D) participate in sigma bond formation
9. B
10. The easily liquefiable gases have higher value of (a, b are van der Waal's constants)  
 (A) a (B) b  
 (C)  $\frac{a}{b}$  (D)  $a \times b$
10. C
11. In Lothar Meyer atomic volume curve the peak positions are occupied by  
 (A) inert gases (B) alkali metals  
 (C) halogens (D) group-14 elements
11. B
12.  $\text{Li}_2\text{CO}_3$  undergoes decomposition reaction unlike the carbonates of it's group elements because  
 (A) the lattice energy of  $\text{Li}_2\text{CO}_3$  is the lowest than its group elements  
 (B)  $\text{Li}^{2+}$  ions has highest polarizing power than the other monovalent ions of its group elements  
 (C)  $\text{Li}^+$  is more hydrated than the other monovalent ions of its group.  
 (D) oxidizing nature of  $\text{CO}_3^{2-}$  ions
12. B
13. Which of the following oxide is most soluble in water?  
 (A) BaO (B) CaO  
 (C) MgO (D) BeO
13. A
14. Which of the following contains one mole atoms?  
 (A) 17 g of  $\text{NH}_3$  (B) 14 g of CO  
 (C) 64 g of  $\text{SO}_2$  (D) 4.4 g of  $\text{CO}_2$
14. B

**(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.

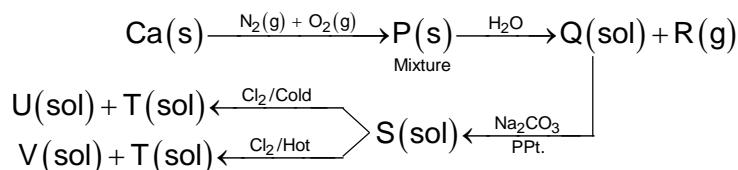
**Paragraph for Question no. 15 to 16**

A 15 g mixture of NaCl and CaO was dissolved in 2.5 L of 0.2 M HCl solution. After complete reaction, the reaction mixture consumed 200 mL of 0.5 M NaOH solution for neutralization of the excess acid(HCl).



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

15. How much NaCl is present in the mixture?  
 (A) 3.8 g (B) 0.6 mole  
 (C) 0.4 equivalent (D) None
15. A
16. What is the percentage purity of the mixture?  
 (A) 30.88 (B) 25.34  
 (C) 69.12 (D) 74.66
16. D

**Paragraph for Question no. 17 to 18**

Answer the following question.

17. The mixture(P) contains  
 (A)  $\text{Ca}(\text{NO}_3)_2$  and CaO (B)  $\text{Ca}_3\text{N}_2$  and CaO  
 (C)  $\text{Ca}(\text{NO}_2)_2$  and  $\text{Ca}(\text{NO}_3)_2$  (D) CaO and  $\text{Ca}(\text{NH}_2)_2$
17. B
18. Compound(U) can undergo disproportionation reaction to produce(V) and an unknown compound. The unknown compound is  
 (A) S (B) T  
 (C) Q (D) P
18. B



**SECTION-3 : MATHEMATICS****PART – A****(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.

1. If  $\log_{12} 27 = a$  then  $\log_6 16$

(A)  $4\left(\frac{3-a}{3+a}\right)$

(B)  $2\left(\frac{3+a}{3-a}\right)$

(C)  $4\log_6 2$

(D)  $\frac{4\ln 2}{\ln 2 + \ln 3}$

1. ACD

2. If  $\cos \alpha = \frac{3}{5}$  and  $\cos \beta = \frac{5}{13}$  then

(A)  $\cos(\alpha + \beta) = \frac{33}{65}$

(B)  $\sin(\alpha + \beta) = \frac{56}{65}$

(C)  $\sin^2\left(\frac{\alpha - \beta}{2}\right) = \frac{1}{65}$

(D)  $\cos(\alpha - \beta) = \frac{63}{65}$

2. BCD

3. If the lines joining the origin to the points of intersection of the line  $3y = mx + 3$  and the curve  $x^2 + y^2 = 1$  are at right angle then value of  $m + 3$  is

(A) 5

(B) 6

(C) 1

(D) Zero

3. BD

4. Which of the following is/are **CORRECT**?

(A)  $\int x^n dx = \frac{x^{n+1}}{n+1} + c \quad \forall n \in \mathbb{R}$

(B)  $\int \sec x dx = -\ln|\sec x - \tan x| + c$

(C)  $\int \frac{dx}{1+e^x} = -\ln(c(e^{-x} + 1))$

(D)  $\frac{d}{dx}(|x|) = \frac{|x|}{x}, x \neq 0$

4. BCD

5. Which of the following is **INCORRECT** ?

(A) If  $\frac{d}{dx}\left(\frac{1+x^2+x^4}{1+x+x^2}\right) = ax + b$ , then  $a + b = 3$

(B) If  $y = e^{\tan x}$ , then  $\left.\frac{dy}{dx}\right|_{x=0} = 0$

(C)  $\lim_{x \rightarrow 1} \frac{x-1}{2x^2-7x+5} = 0$

(D)  $\lim_{h \rightarrow 0} \frac{\sqrt{x+h} - \sqrt{x}}{h} = \frac{1}{\sqrt{x}}$

5. ABCD

6. A vertex of an equilateral triangle is  $(2, 3)$  and the equation of its opposite side is  $x + y = 2$ . The equations of the remaining sides are

(A)  $(y - 3) = (2 + \sqrt{3})(x - 2)$                       (B)  $(y - 3) = (2\sqrt{3} + 1)(x - 2)$   
 (C)  $(y - 3) = (2\sqrt{3} - 1)(x - 2)$                       (D)  $(y - 3) = (2 - \sqrt{3})(x - 2)$

6. AD

7. Let  $f_n(\theta) = \sum_{n=0}^n \frac{1}{4^n} \sin^4(2^n \theta)$ . Then which of the following alternative(s) is/are correct?

(A)  $f_2\left(\frac{\pi}{4}\right) = \frac{1}{\sqrt{2}}$                                               (B)  $f_3\left(\frac{\pi}{8}\right) = \frac{2 + \sqrt{2}}{4}$   
 (C)  $f_4\left(\frac{3\pi}{2}\right) = 1$                                                       (D)  $f_5(\pi) = 0$

7. CD

### (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**.

8. If  $\frac{\sin^4 A}{a} + \frac{\cos^4 A}{b} = \frac{1}{a+b}$ , then  $\frac{\sin^8 A}{a^3} + \frac{\cos^8 A}{b^3}$  is equal to

(A)  $\frac{1}{(a+b)^3}$                                                               (B)  $\frac{1}{(a-b)^3}$   
 (C)  $\frac{1}{(a+b)^2}$                                                               (D)  $\frac{1}{(a-b)^2}$

8. A

9. The number  $\log_{20} 3$  lies in the interval

(A)  $\left(\frac{1}{4}, \frac{1}{3}\right)$                                                               (B)  $\left(\frac{1}{3}, \frac{1}{2}\right)$   
 (C)  $\left(\frac{1}{2}, \frac{3}{4}\right)$                                                               (D)  $\left(\frac{3}{4}, \frac{4}{5}\right)$

9. B

10. The maximum value of  $\sin(\cos x)$  is equal to

(A)  $\sin 1$                                                                       (B) 1  
 (C)  $\sin\left(\frac{1}{\sqrt{2}}\right)$                                                               (D)  $\sin\left(\frac{\sqrt{3}}{2}\right)$

10. A

11. The equation of the circle passing through the points  $(2, 0)$  and  $(0, 4)$  and having the minimum possible radius is

(A)  $x^2 + y^2 + x + y = 3$                                               (B)  $x^2 + y^2 - 2x - 4y = 0$   
 (C)  $x^2 + y^2 - 7x - y + 8 = 0$                                               (D) none of these

11. B

12. If  $\lambda x^2 + \mu y^2 + (\lambda + \mu - 4)xy - \lambda x - \mu y - 20 = 0$  represents a circle, then the radius of the circle is
- (A)  $\frac{\sqrt{21}}{2}$  (B)  $\frac{\sqrt{42}}{2}$   
 (C)  $2\sqrt{21}$  (D)  $\sqrt{22}$

12. **B**

13. If  $\frac{\sin x + \cos x}{\cos^3 x} = a \tan^3 x + b \tan^2 x + c \tan x + d$ , then  $a + b + c + d =$
- (A) 0 (B) 2  
 (C) 4 (D) -2

13. **C**

14.  $\frac{\sin \alpha \sin 3\alpha + \sin 3\alpha \sin 7\alpha + \sin 5\alpha \sin 15\alpha}{\sin \alpha \cos 3\alpha + \sin 3\alpha \cos 7\alpha + \sin 5\alpha \cos 15\alpha} =$
- (A)  $\sin 11\alpha$  (B)  $\cos 11\alpha$   
 (C)  $\tan 11\alpha$  (D)  $\cot 11\alpha$

14. **C**

### (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

$A(1, 3)$  and  $C\left(-\frac{2}{5}, -\frac{2}{5}\right)$  are the vertices of a  $\Delta ABC$  and the equation of the angle bisector of  $\angle ABC$  is  $x + y = 2$ .

15. The coordinates of vertex B are
- (A)  $\left(\frac{3}{10}, \frac{7}{10}\right)$  (B)  $\left(\frac{17}{10}, \frac{3}{10}\right)$   
 (C)  $\left(-\frac{5}{2}, \frac{9}{2}\right)$  (D) (1, 1)

15. **C**

16. The equation of side AB is
- (A)  $3x + 7y = 24$  (B)  $3x + 7y + 24 = 0$   
 (C)  $13x + 7y + 8 = 0$  (D)  $13x - 7y + 8 = 0$

16. **A**

## Paragraph for Question no. 17 to 18

If  $\sin \alpha - \sin \beta = a$  and  $\cos \alpha + \cos \beta = b$ , then

17.  $\cos(\alpha + \beta) =$

(A)  $\frac{a^2 - b^2}{a^2 + b^2}$

(B)  $\frac{2ab}{a^2 + b^2}$

(C)  $\frac{a^2 + b^2 - 2}{2}$

(D) none of these

17. C

18.  $\tan(\alpha - \beta) =$

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

(B)  $\frac{2ab}{a^2 + b^2}$

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

(D) depends on the values of a and b

18. D

# ANSWERS

## **SECTION-1 : PHYSICS**

### PART – A

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

## **SECTION – 2 : CHEMISTRY**

### PART – A

## **SECTION – 3 : MATHEMATICS**

### PART – A