



## Entrance Test (Sample Question Paper) Session 2024-25

### 10+1 (Non-Medical)

#### [Section - A (Physics)]

Time : 25 min.

Max. Marks - 15

1. Write S.I. unit of resistance. [1]
2. Write S.I. unit of potential. [1]
3. What is dispersion ? [1]
4. What is Hyper metropia? [1]
5. What is power of a lens? [1]
6. How many electrons makes 1C of charge? [2]
7. Define reflection of light. State laws of reflection. [2]
8. How much work is done in moving a charge of 2C across two points having a potential difference of 5V? [2]
9. Why is the colour of the sky blue? [2]
10. Write uses of concave mirrors. [2]

#### [Section - B (Chemistry)]

Time : 25 min.

Max. Marks - 15

1. What is corrosion? [1]
2. Balance the chemical equation :  
$$\text{Zn(s)} + \text{HCl(aq)} \rightarrow \text{ZnCl}_2\text{(aq)} + \text{H}_2\text{(g)}$$
 [1]
3. Arrange the following elements in increasing order of their atomic radii- Li, Na, K, Rb[1]
4. Draw structure of Pentane. [1]
5. Name the metal which is liquid at room temperature. [1]
6. Define : (i) Catenation (ii) Tetravalency of Carbon [2]
7. Write IUPAC name of the following compounds :-  
a)  $\text{CH}_3\text{CH}_2\text{OH}$       b)  $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$  [2]
8. What are amphoteric oxides? Give an example. [2]
9. Differentiate between exothermic and endothermic reaction. [2]
10. What is redox reaction? Give one example. [2]

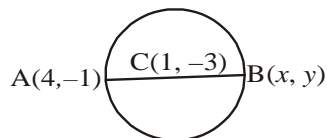
[Section - C (Maths)]

Time : 30 min.

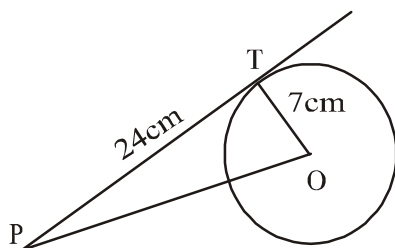
Max. Marks - 20

[Section - A]

1. If sum and product of the roots of the equation  $kx^2 + 6x + 4k = 0$  are equal, then find the value of  $k$ .
2. If  $a_n$  of an AP is  $(2n + 1)$ , find  $S_n$  of the AP.
3. Find co-ordinates of B, if C is the mid point of AB.



4. Find OP.

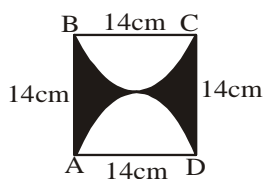


[4×2=8]

[Section - B]

5. Two dice are thrown together, find the probability of getting the sum 8.

6. Find the area of the shaded part:



7. Solve the system of equations :-

$$\frac{1}{2x} - \frac{1}{y} = -1 \text{ and } \frac{1}{x} + \frac{1}{2y} = 8.$$

[3×4=12]

[Section - D (English)]

Time : 30 min.

Max. Marks - 20

1. Read the following passage below and answer the questions that follow:-

We stood by a pond winter day,  
And the sun was white, as though chidden of God  
And a few leaves lay on the starving sod,  
They had fallen from an ash, and were gray,  
Your eyes on me were eyes that rove  
Over tedious riddles solved years ago;  
And some words played between us to and fro  
On which lost the more by our love.

The smile on your mouth was the dearest thing  
Alive enough to have strength to die;  
And a grin of bitterness swept thereby  
Like an ominous bird a wing.  
Since then, keen lessons that love deceives,  
And wings with wrong, have shaped to me  
Your face, and the God-crust sun, and a tree,  
And a pond edged with grayish leaves.

**Answer the following questions:-**

(i) Some leaves had fallen from an ash tree. They were .....

- a) green
- b) red
- c) gray
- d) yellow

(ii) The smile on the mouth of the beloved was .....

- a) the sweetest thing
- b) the dearest thing
- c) most friendly
- d) full of irony

(iii) Which tree is beside the pond?

[3×1=3]

**2. Using the following key-words, form a passage and also provide a suitable title to it.**

- young boys and girls fall prey to drugs
- sell their books, belongings, to buy drugs
- harm their bodies, minds
- de-addiction centres should be opened

[5]

**3. Write a paragraph in about 100 words on any one of the following :-**

- i) Air Pollution
- ii) Why I Love My School
- iii) Value of Discipline

[5]

**4. Fill in the blanks with the correct options from those given below :-**

- (a) He \_\_\_\_\_(spend) all his life in the service of the poor.
- (b) Sushma \_\_\_\_\_ (cry) for half an hour.
- (c) He jumped off the train while it \_\_\_\_\_ (move).

[3×1=3]

**5. Rearrange the following words and phrases into meaningful sentence.**

- i) her honesty known she is far
- ii) teacher obedient I to my am

[2×1=2]

**6. Change the narration of the following sentences :-**

- i) She said to you, “ Will you accompany me to Chennai”?
- ii) He said to them, “I am tired of this life.”

[2×1=2]