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Entrance Test (Sample Question Paper) Session 2026-27

10+1 (Non-Medical)

[Section - A (Physics)]

Time : 30 min.

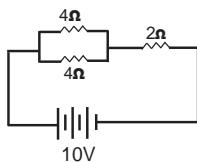
Max. Marks - 15

[Section - A] (5×1=5)

- Q1. Which type of mirror is used as car view minor?
- Q2. Write S.I unit of Resistance.
- Q3. Define hypermetropia.
- Q4. Define electric potential.
- Q5. Write lens formula for spherical lens.

[Section - B] (5×2=10)

- Q6. Calculate number of electron in 2C of charge.
- Q7. State laws of refraction.
- Q8. Calculate the total resistance in following network.



- Q9. How much work is done to move a 90C charge across potential difference of 30V?
- Q10. If angle of incidence of light from rarer to denser medium is 45° and angle of refraction is 30°. Find refractive index of the medium.

[Section - B (Chemistry)]

Time : 30 min.

Max. Marks - 15

1. Name the metal which is liquid at room temperature. [1]
2. Balance the given equation :
$$\text{ZnCO}_3(\text{s}) \rightarrow \text{ZnO}(\text{s}) + \text{CO}_2(\text{g})$$
 [1]
3. What is catenation? [1]
4. What are amphoteric oxides? Give an example. [1]
5. Which gas is liberated when an acid reacts with metal? [1]

6. What is a combination reaction? How is it different from decomposition? Explain with the help of suitable example. [2]

7. Write note on : [2]

a) Corrosion b) Rancidity

8. Write IUPAC name of following compounds : [2]

a) $\text{CH}_3\text{CH}_2\text{OH}$ b) $\text{CH}_3\text{CH}_2\text{COOH}$

9. Write down differences between metals and non-metals. Give atleast four points. [2]

10. What do you mean by Redox reactions? Explain with the help of an example. [2]

[Section - C (Maths)]

Time : 30 min.

Max. Marks - 15

[Section - A] [4×2=8]

1. Find the roots of the quadratic equation $x^2 + 2x - 9 = 0$.

2. Find the 10th term of the AP:
3, 8, 13,

3. Find the distance between the points A(5, 3) and B(-4, -1).

4. If $P(E) = 0.25$, what is the probability of 'not E'?

[Section - B] [4×3=12]

5. Find the area of the sector of a circle with radius 4cm and of angle 30° .

6. A toy is in the form of a cone of radius 3.5cm mounted on a hemisphere of same radius. The total height of the toy is 15.5cm. Find the total surface area of the toy.

7. One card is drawn from a well shuffled deck of 52 cards. Find the probability of getting a jack of Diamond.

8. In an AP, $a = 7$, $a_{13} = 35$ find S_{13} .

[Section - D (English)]

Time : 30 min.

Max. Marks - 15

Q1. Read the passage given below and answer the questions that follow: (5)

Once, I was in search of a house. That is nothing new. I am always looking for a house. I never get a house or a room that I like. I had found a hundred faults in the place I was staying. But to whom could I complain? I was asked to leave if I disliked the place. But where could I go? So I continued to live there in resentment. Those were the days when it

was almost impossible to get a good house for a low rent. And so I wandered about in search of a house. And suddenly, there it was! It was a small single-story house, far from the bustle of the town, near the outskirts. There was an ancient board-'To Let'. I liked it. Upstairs, there were two rooms and a balcony and, on the ground floor, four rooms and a bathroom. I was delighted and surprised. Why hadn't anyone taken the house? I was excited. I paid an advance rent of two months and got the key from the owner. The next day, I shut the door of my new house and locked it. I stepped onto the road and shut the gate. I put the key in my pocket and walked on with a sense of pride. First, I met the postman. When I told him of the house I had occupied, he said with a look of fear, "Ooh Sir... in that house...a violent death had taken place. No one stays there. That's why the house has remained vacant." I was taken aback. I asked, "What kind of violent death?" "Isn't there a well in the yard? Someone jumped into it. Since then, there has been no peace or quiet in that house. At night, the doors would shut with a bang; the taps would start running..." "The ghost will hold you by the throat and throttle you," added the postman, "Didn't anyone tell you, Sir?"

Complete these sentences in your own words.

1. It was not something new that the writer was looking for a house because.....
2. The writer was delighted and surprised because.....
3. He walked with a sense of pride because.....
4. The postman had a look of fear on his face because.....
5. There has been no peace or quiet in that house because.....

Q2. Write a paragraph on any of the following topics:

(5)

- a) Stop Cruelty towards Animals
- b) How to Prepare for School
- c) Independence Day.

Q3. Do as directed:

(10×1/2=5)

- a) The cook cooked food. (Change into Present Indefinite Tense)
- b) He is too young to travel alone. (Remove 'too')
- c) I shall not attend his marriage unless he (invite) me. (Use correct form of Verb given in the bracket)
- d) She dare not(disobey) me. (Use Non-finite Verb)
- e) he come to you, give him my message? (Use appropriate Modal verb)
- f) Work hard lest you..... fail. (Use appropriate Modal verb)
- g) Do not borrow. Do not lend. (Use **neither ... nor** to connect the given statements)
- h) Is she not helping you? (Change the Voice)
- i) The teacher said to the boys, "Why are you making a noise?" (Change the Narration).
- j) gives consent silence. (Re-arrange the words to make a meaningful sentence)