



10+1 (Non-Medical) Entrance Test (Sample Question Paper)

[Section - A (Physics)]

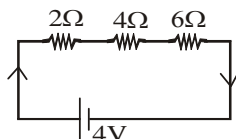
Time : 25 min.

Max. Marks - 15

1. State Ohm's law. [1]
2. Write S.I. unit of resistance. [1]
3. Write S.I. unit of power of lens. [1]
4. What is power? [1]
5. Define principal focus of concave mirror. [1]
6. How many electrons makes 10C of charge? [2]
7. Define reflection of light. State laws of reflection. [2]
8. How much work is done in moving a charge of 5C across two points having a potential difference of 10V?

[2]

9. Find the total resistance in the following circuit :



[2]

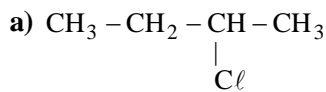
10. Define magnification of a lens. What are the signs used for magnification in convex lens and concave lens? [2]

[Section - B (Chemistry)]

Time : 25 min.

Max. Marks - 15

1. How many valence electrons will Nitrogen have? [1]
2. Identify the compound with double bond:
 C_5H_8 , C_4H_{10} , C_2H_2 [1]
3. Balance the given equation :
 $Mg + HCl \rightarrow MgCl_2 + H_2$ [1]
4. What is chemical formula of Washing soda? [1]
5. Define oxidation. [1]
6. Write IUPAC name of following compounds :



7. Write down electronic configuration of :

a) Aluminium (At. No = 13)

b) Calcium (At no = 20) [2]

8. Differentiate between reversible and irreversible reactions. [2]

9. What do you mean by catenation? Give one example. [2]

10. What is homologous series? Write first two members of Aldehyde series. [2]

[Section - C (Maths)]

Time : 30 min.

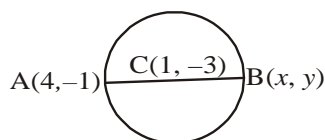
Max. Marks - 20

[Section - A]

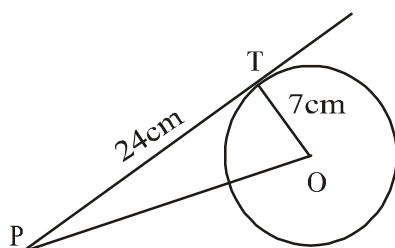
1. If sum and product of the roots of the equation $kx^2 + 6x + 4k = 0$ are equal, then find the value of k .

2. If a_n of an AP is $(2n + 1)$, find S_n of the AP.

3. Find co-ordinates of B.



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 :-

$$\frac{1}{2x} - \frac{1}{y} = -1 \text{ and } \frac{1}{x} + \frac{1}{2y} = 8. \quad [3 \times 4 = 12]$$

[Section - D (English)]

Time : 30 min.

Max. Marks - 20

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

Dear Babe, that sleepest cradled by my side,
Whose gentle breathing, heard in this deep calm,
Fill up the interspersed vacancies
And momentary pauses of the thought !
My babe so beautiful ! it thrills my heart
With tender gladness, thus to look at thee,
And think that thou shalt learn far other lore,
And in far other scenes ! For I was reared
In the great city, pent' mid cloisters dim,
And saw nought lovely but the sky and stars.
But thou, my babe ! shalt wander like a breeze
By lakes and sandy shores, beneath the crags
Of ancient mountain, and beneath the clouds,
Which image in their bulk both lakes and shores
And mountain crags : so shalt thou see and hear
The lovely shapes and sounds intelligible
Of that eternal language, which thy God
Utters, who from eternity doth teach
Himself in all, and all things in himself.
Great universal teacher ! he shall mould
Thy spirit, and by giving make it ask.

Answer the following questions:-

(i) The poet's baby is sleeping _____.

- | | |
|---------------|------------------|
| a) on the mat | b) in the cradle |
| c) on the bed | d) in his lap |

(ii) The poet feels thrilled to look at his son with _____.

- | | |
|--------------------|------------------|
| a) pride | b) hopefulness |
| b) tender gladness | d) tears of love |

(iii) What is it that poet's son see and hear?

[3×1=3]

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

- Every new technology has good and bad points
- Cell phone, very useful, may be misused

- hackers can do a lot of harm
- technology to be used to promote harmony and good will

[5]

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

- i) The evil of cheating in Examinations
- ii) The evil of Dowery System
- iii) Corruption

[5]

4. Fill in the blanks :-

(a) I have met (a) _____ people in my life but (b) _____ person who has influenced me (c) _____ most is Mother Teresa.

[3×1=3]

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

- i) hurried / the room / extremely / back / nervous / I / to
- ii) accustomed / the / darkness / to / of / room / the / eyes / my / gradually / become.

[2×1=2]

6. Change the narration of the following sentences :-

- i) We said to them, “Is she making a noise”?
- ii) They said to him, “ Has he failed again”?

[2×1=2]

6. Change the narration of the following sentences :-

- i) Rama said, “I am very busy now”.
- ii) I say, “I am an honest man”.

[2×1=2]