

Tenth Class Physics Paper-1 Model Paper

General Science-Paper-I

(English Version)

Time: 2 Hrs. 45 Min.

Max. Marks: 40

Instructions:

- Read the question paper thoroughly and understand it without writing anything. An additional time of 15 minutes has been allotted for this.
- This questions paper consists sections-I, II and III
- Answer the questions given under part A in the answer book provided for you
- Section-III contains internal choice for each question. Choose accordingly.

Part - A

SECTION-I

7 × 1 = 7M

- Answer all the questions in one or two sentences.
- Answer must be confined to 1-2 sentences.

SECTION-I

- Give an example for exothermic reaction?
- If you test the electrical conductivity through Glucose, Hydrochloric acid, Alcohol and Sulfuric acid, imagine and write which of them do not allow electricity through them.
- Can we find the velocity and position of electron exactly? Why?
- Imagine and write, what happens if we touch a live wire of 240v. (Consider our body resistance is 1,00,000Ω)
- Write some examples of corrosion of metals?
- Draw the shape of Beryllium molecule formed by hybridization.
- Why do Coal and Petroleum causes atmospheric pollution while burning?

SECTION-II

6 × 2 = 12M

- Answer all questions.
 - Answer must be confined to two to four sentences.
- Imagine and write what happens if the reflectors of car headlights are arranged as plain surface instead of parabolic surface.
 - Write the list of apparatus, material required to find the relation between the focal length of a lens and the medium in which it is kept. Write your observations also.
 - The focal length of a lens used to correct eye defect is +80cm which lens is used. What is the type of vision defect? What is the power of lens?
 - Observe the following table.

Group \ Period	1	2	3 to 12	13	14	15	16	17	18
2		A					D		E
3						C			F
4			B						

- Which of the above is a non metal with valency 3?
 - Which element belongs to d-block?
- What is the general name of Calcium Sulfate hemi hydrate? Write its uses.
 - Compare the magnetic lines of force obtained by a bar magnet and that of a solenoid by drawing their diagrams.

SECTION-III

4 × 4 = 16M

- Answer all the questions.
 - Answer must be confined to 8-10 sentences.
 - Each question has an internal choice, so choose only one from them.
- If the object distance changes in front of a lens, the image distance also changes, but in a eye lens though the object distance changes, the image distance will not change. Explain the reason for this.

(OR)

Explain the cleansing process of soap when a dirty cloth is soaked in soap water.

- What is covalent bond? Explain the formation of Ammonia molecule by the covalent bond, with the help of a diagram.

(OR)

Explain various processes involved in refining of a metal with examples.

- Write the procedure of experiment to show that the acids will produce ions in their aqueous solutions only.

(OR)

Write the procedure and observations, when a current carrying conductor is kept in a magnetic field.

- Observe the following table.

Element	Set of four quantum numbers of differentiating electron
A	$n = 4, l = 0, m_l = -1, m_s = +\frac{1}{2}$
B	$n = 3, l = 1, m_l = +1, m_s = +\frac{1}{2}$
C	$n = 3, l = 1, m_l = +1, m_s = -\frac{1}{2}$
D	$n = 3, l = 1, m_l = -1, m_s = +\frac{1}{2}$

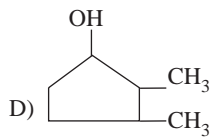
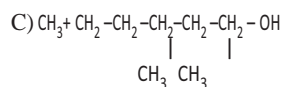
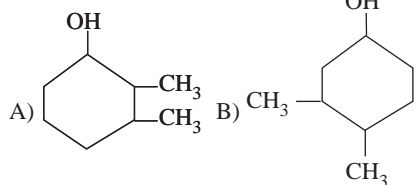
- Which of the above is an inert gas?
- Which elements can combine with ionic bonds?
- Which elements is a metal?
- Which elements contain dumbbell shaped orbital in their valence shell?

Bulb	A	B	C
Rating	60W 120V	100W 240V	25W 250V

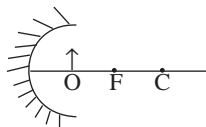
- Which bulb consumes more electricity?
- Whose resistance will be more?
- Which of the above bulb is suggested to use in order to get minimum electricity bill?
- The bulb 'A' is used 10 hours a day. What is the consumption in units for a month of 30 days?

Part-B $10 \times \frac{1}{2} = 5M$

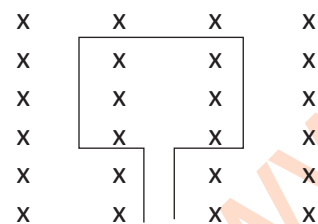
- Which of the following can be used as shaving mirror?
A) Convex mirror B) Concave mirror C) Convex lens D) Concave lens
- The reaction taken place between the aqueous solutions of Na_2SO_4 and BaCl_2 can be identified by:
A) Production of heat B) Evolving gases C) Absorbing heat D) Precipitate formation
- Which of the following optical device dispersed a light ray?
A) Convex lens B) Concave mirror C) Concave lens D) Plane mirror
- The valence electronic configuration of a element which belongs to 3rd period and 16(IV A) group is:
A) $3s^2 3p^5$ B) $3s^2 3p^6$ C) $3s^2 3p^4$ D) $3s^2$
- A bulb of 30W resistance has been connected to a 3v battery. The current passing through bulb is:
A) 0.1 Amp B) 10 Amp C) 1 Amp D) 90 Amp
- 2, 3 - Di - Methyl - Cyclo - hex - an-1-ol is:



- The characteristics of image formed in the adjacent figure. ('O' is the object)



- Inverted - Virtual
 - Virtual - Diminished
 - Virtual - Erected and diminished
 - Enlarged - Erected and virtual
- If the coil of wire in the adjacent figure is rotated the process we observe is:



- Conversion of electrical energy into mechanical energy
 - Conversion of chemical energy into electrical energy
 - Conversion of mechanical energy into electrical energy
 - Conversion of electrical energy into heat energy
- Use the Buckminster fullerenes are:
A) Molecular wires B) In the medicines used to treat cancer cells like melanoma C) Pencil D) Glass cutter
 - If we want see the magnified letters from a book, by using a magnifying glass, the distance between the glass and the book would be:
A) Equal to the radius of curvature of magnifying glass
B) Equal to the focal length of the magnifying glass
C) More than the radius of curvature of the magnifying glass
D) Less than the focal length of the magnifying glass

KEY

- 1) B 2) D 3) C 4) C 5) A 6) A 7) D 8) C 9) B 10) D