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MODEL PAPER-3 S.S.C. PUBLIC EXAMINATIONS-2021 PHYSICAL SCIENCE (English Medium)

Class: X

(Max.Marks: 50)

Instructions:

Time: 2 Hr. 45 Min

- 1. There are four sections an 33 questions in this papers.
- Answer should be written in a given answer booklet 2.
- 3. There is internal choice in Section-IV
- Write all the questions visible and legibly. 4.
- 5. 15 Minutes are given for reading the questions paper and 2.30 hours for given for answering questions.

SECTION-1

NOTE:1. Answer all the questions/ 2. Each question carries ¹/₂ mark

- 1 Cal = Joule 1.
- 2. What is the nature of non-metal oxides?
- 3. Assertion : It is difficult to shoot a fish swimming in water. Reason:_ Due to refraction fish in water change is Original position (B) A - FALSE, R - TRUE A) A- TRUE R – FALSE
 - (D) A TRUE R- TRUE
 - C) A FALSE, R-FALSE
 - The midpoint of a thin lens is called
 - A) Centre of curvature

B) Optic centre D) Radius of curvature

C) Focus Matching 5.

4.

- X) Least distance of distinct vision
- Y) Angle of vision

-] P) 25 cm] Q) 30 cm R) 60⁰
- (n + l) value of 3d orbital is 6.
- 7. Number of elements present in period-2 of the long form of periodic table A) 2 B) 8 C) 18 D) 32
- What type of hydridization is present in BF3 Molecule 8.
- Name the material which is used to make of filament in the clectric lamp. 9.
- 10. Write the formula of magnetic flux density.
- What is the general formula of Alkanes 11.
- 12. The most abundant metal in the earth's crust is A) Silver B) Alluminium C) Gold D) Iron

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 $12 \times \frac{1}{2} = 6 M$

SECTION-II

NOTE: 1. Answer all the questions4. Each question carries 1 Mark

8x1=8M

8x2=16M

- 13. State the principle of method of mixtures
- 14. Why pure acetic acid does not conduct electricity
- 15. Why does ray of light bent when it travels from one medium to another.
- 16. Write S.I. Unit of power of lens.
- 17. Which quantum number gives size and energy of the main shell.
- 18. Define modern periodic law.
- 19. Define octet rule
- 20. What happens to the resistance of a conductor if we increase its length.

SECTION-III

NOTE: **1**. Answer all the questions **2**. Each question carries **2** Marks

- 21. Write the formula of specific heat and explain the terms in it.
- 22. Why does not distilled water conduct electricity.
- 23. Write the materials required to conduct Ohm's law verification experimentally.
- 24. A doctor advised to Ravi to use -2D lens for his effect. Based on this information. Answer the questions given below.
 - a) Identify the eye defect of Ravi
 - b) Find the focal length of lens.
- 25. State and explain pauli's exclusion principle
- 26. What is the flux through the plane taken parallel to the field.
- 27. Define a) Mineral b) Ore
- 28. What is the speciality of carbon.

SECTION-IV

NOTE: 1. Answer all the questions5x4=20M2. Each question carries 4 Marks

29. a) Write the difference between heat and temperature(OR)

b) Explain the correction of the eye defect Hypermatropia

30. a) Define modern periodic law? Discuss the construction of the long form of the periodic table.

OR

- c) State and explain with one example of Aufbau. Principle
- 31. How do you verify the experiment the magnetic field Lines are closed loops.

OR

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How do you verify experimentally that

 $\frac{\sin i}{\sin r}$ is a constant.

S.No.	Sample	Red	Blue	Phenolpthalen	Methyl]
	Solution	Litmus	Litmus	Solution	Orange	
		Paper	Paper		Solution	
1.	Hcl	-	Red	-	Red	
2.	NaOH	Blue		Pink		
3.	CH ₃ COOH					
4.	КоН	Blue	No change		Yellow	

(OR) a. Observe the table

observe the table										
Hydrocarbon :	Butene		Pentyne		Ethyne	E	utan	e Et	hene	
Molecular Formula:	C_4H_8	С	$_5\mathrm{H}_8$	C_2	H_2	C_4H	10 (C_2H_4		Å
A new or the following	anostior	20	1		1					

Answer the following questions.

- i) Identify the saturated hydrocarbons in the given table.
- ii) What is the general formula for alkynes
- iii) What is the simplest alkene given in the table
- iv) Identify the hydro carbons in which double bond (=) is present
- 33. a) Draw ray diagrams for the following positions of convex lens
 - i) Object is placed at $2 F_2$
 - ii) Object is placed between F2 and Optic centre P
 - OR b) Draw the shape of d-orbitals.