SET-1

MODEL PAPER - 1 S.S.C. PUBLIC EXAMINATIONS-2021 PHYSICAL SCIENCE

(English Medium)

Instructions :

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

Section - I

Note: 1. Answer all the Questions. $12 \times \frac{1}{2} = 6$ 2. Each Question carries $\frac{1}{2}$ mark 1. What is the shape of V-I graph of Ohmic conductor? 2. S-I unit of heat is 3. The colour of pheolphthalein indicator in baric solution is A) Yellow B) Green C) Pink D) Orange 4. x: Refractive index $n = \frac{c}{v}$ y: Refractive index has no units A) Both are correct B) x is correct, y is wrong C) x is wrong, y is wrong D) Both are wrong 5. Which electronic shell is at a higher energy level K or L? 6. Lithium and potassium constitute a dobereiners triad. 7. Match the suitable answers of section-B with section-A Section-A Section-B P) 120⁰ x) N₂ Q) 180⁰ y) BF₃

R) 3 bonds

[Turn Over

8. The impurity present in the ore is called as					
A) Gangue	B) Flu	x C) Sl	ag	D) Mineral	
9. What is the maxium focal length of the human eye lens?					
10. The midpoint of a thin lens is called					
A) Centre of curvature			B) Optic Centre		
C) Focus			D) Radius of curvature		
11. Write the name of simplest hydrocarbon					
12. WeberImeter2 =					
A) Oersted	B) Tesla	C) Newton	D) Wa	tt	

Section - II

Note :	1. Answer all the Questions.	
	2. Each Question carries 1 Mark	8 × 1 = 8
13.	Which rule is violated in thew electric configuration $1s^02s^22p^4$?	
14.	What is the flux through the plane taken parallel to the field?	
15.	Mention any one of methods of prevention of corrosion.	
16.	Write the formula of specific heat	
17.	What is refraction?	
18.	What are factors which affect the resistance of a material?	
19.	What is shape of BF_3 ?	
20.	Define the modern periodic law.	
	Section - III	
Note :	1. Answer all the Questions.	
	2. Each Question carries 2 Marks	$8 \times 2 = 16$
21.	What role does specific heat play in keeping a watermelon coo time after removing at from a fridge on a hot day?	for a long

22. Why does not distilled water conduct electricity?

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- 23. Frame any two questions to understand difference between convex lens and concave lens.
- 24. Write the materials required to conduct Oersted experiment.
- 25. Define power of lens and write their unit
- 26. Write the four quantum numbers for $1s^1$ electron.
- 27. When we sit at camp fire, objects beyond the fire are seen swaying. Give reason for it.
- 28. Define "mineral".

Section - IV

Note : 1. Answer all the Questions.

2. Each Question carries 4 Marks

 $5 \times 4 = 20$

29. How do you correct the eye defect Myopia?

OR

Define the following terms

A) Electric current B) Resistance

30. Discuss the construction of the long form of the periodic table

OR

Explain the formation of BeCl, molecule using hybridisation.

31. Explain the procedure of finding specific heat of solids experimentally

OR

How do you verify experimentally that Sin i / Sin r is a constant?

32. Complete the following table

S.No	Sample	Red litmus	Blue litmus	Phenolphthalein	Methyl orange
	Solution	paper	paper	solution	solution
1	Hel				
2	NaOH				

[Turn Over

OR

Observe the table and answer the following questions.

Alkane	Methane	Ethane	Propane	Butane
Molecular	СН	С Н	С Н 3 8	СН 4 10
formula	4	26	3 0	4 10

a) What is the general formula of Alkanes?

b) Write the moleular formula of next alkane comes after Butane.

c) How many carbons in Pentane?

d) How many bonds present in Methane?

33. Draw ray diagrams for the following positions of convex lens?

A) Object is placed at F_2 B) Object is placed at $2F_2$

OR

Draw the shape of s and p orbitals.
