SSC PUBLIC EXAMINATIONS: JULY-2020
GENERAL SCIENCE – PAPER- I & II
MODEL PAPER
(English Medium)

Time: 3.15 Hrs.   **Max. Marks: 100 Marks**

Instructions:
1. This paper consists of Part-A & Part- B.
2. Part-A Contains questions from Physical Science and Part-B consists from Biological Science
3. Part-A & Part-B contains 4 sections each
4. There are 33 questions in the paper.
5. There is internal choice in Section-IV of Part –A and Part- B.
6. Write all the questions visibly & legibly.
7. 15 minutes are given for reading the question paper.

PART-A

SECTION - I

Note: 1. Answer all the Questions
      2. Each Question carries 1 Mark   6x1=6

1. The focal length of a converging lens is 20 cm. An object is 60 cm from the lens. Where will the image be formed.
2. What is shape of p-orbital ?
3. Define Hybridisation ?
4. Statement 1: A phyrochemical process in which the ore is heated in presence of air is called calcinations
   Statement 2: A phyrochemical process in which the ore is heated in the absence of air is called roasting
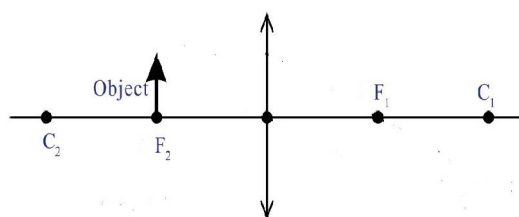   **Write the correct answer of the following in your answer booklet**
   A) Both Statements are correct   B) Statement 1 is only correct
   C) Statement 2 is only correct   D) Both Statements are wrong
5. Which of the following converts mechanical energy into electrical energy ?
      a) Electric motor   b) Battery   c) Generator   d) Switch
6. Write any one use of Right hand rule

SECTION - II

Note: 1. Answer all the Questions
      2. Each Question carries 2 Marks   4x2=8
7. Complete the ray diagram of Converging lens in your answer booklet

8. Write any two questions to understand difference between AC generator and DC generator
9. In atom, four quantum number of an electron given.Name the orbital which it belongs?

n	l	m_l	m_s
1	0	0	$-\frac{1}{2}$

10. Write the parts of the Reverberatory furnace
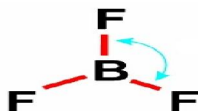
SECTION - III

Note: 1. Answer all the Questions
     2. Each Question carries 4 Marks   4x4=16

11. Read the following table and answer the following Questions

Substance	Lead	Brass	Zinc	Copper	Iron	Aluminum	Kerosene	Ice	Water
Specific heat	0.031	0.092	0.093	0.095	0.115	0.21	0.50	0.50	1

    i) What is the SI unit of Specific heat ?
    ii) Which metal is best for cooking utensils?
    iii) Which metal is used to soldering the wires?
    iv) Write the formula of specific heat of the substance?

12. Observe the figure and answer the questions

    i) What is the hybridization present in BF_3 ?
    ii) What is the shape of BF_3?
    iii) What is the bond angle present in BF_3 ?
    iv) What is the name of the molecule?

13. Define the following
    a) Dispersion of light   b) Scattering of light

14. Give two important uses of washing soda and baking soda

SECTION - IV

Note: 1. Answer all the Questions
     2. Each Question carries 8 Marks   2x8=16

15. Define the modern periodic Law. Discuss the construction of the long form of the periodic table.

<div align="center">(OR)</div>

    Distinguish between esterification and saponification reactions of organic compounds.

16. How do you verify experimentally that sin i /sin r is a constant?

<div align="center">(OR)</div>

  How do you verify that resistance of a conductor is proportional to the length of the conductor for constant cross section area and temperature?

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