Max. Marks: 100 Marks

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

# Time: 3.15 Hrs.

### 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

- 1. Convert 300K into Celsius scale
- 2. If p<sup>H</sup> of the solution is 7, then nature of the substance is \_\_\_\_\_
- 3. Define "Homologous series of carbon compounds"
- 4. Statement 1: In Ethylene carbon is SP<sup>2</sup> hybridized

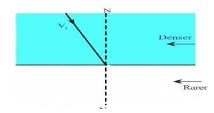
Statement 2: In Acetylene carbon is SP3 hybridized

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.Far point of a person is 5 m. In order to have normal vision what kind of spectacles should he use. A) Concave lens with focal length 5m B) Concave lens with focal length 10m
  - C) Convex lens with focal length 5m D) Convex lens with focal length 2.5m
- 6. Write any one use of Optical fibres

#### **SECTION - II**

- Note: 1. Answer all the Questions
  - 2. Each Question carries 2 Marks
- 7. Complete the figure and redraw the correct diagram in your answer booklet.



8. Write any two questions to understand differences between evaporation and boiling

9. Assume and write the functional group of the carbon compound

CH<sub>3</sub>COOCH<sub>2</sub> CH<sub>3</sub>

10. Write the materials required to do activity to prove water of crystallization?

6x1=6

4x2=8

#### **SECTION - III**

#### Note: 1. Answer all the Questions

- 2. Each Question carries 4 Marks
- 11. Electronic configuration of element is  $1s^2 2s^2 2p^6 3s^2 3p^5$ 
  - Based on the above information, answer the following questions
  - i) What is the name of element?
  - ii) What is the (n+*l*) value of 3p orbital ?
  - iii) Which period and which group the element belongs?
  - iv) Is it metal or non metal?
- 12. Read the following table and answer the following Questions

Material	Silver	Copper	Tungsten	Nickel	Nichrome	Germanium	Silicon	Glass
Resistivity 1	.59x10 <sup>-8</sup>	1.68 x10 <sup>-8</sup>	5.60x10 <sup>-8</sup>	6.99x10 <sup>-8</sup>	$1.10 \times 10^{-6}$	$4.60 \times 10^{-1}$	$6.40  ext{x} 10^2$	$10.0 \mathrm{x} 10^{10}$
at $20^{\circ}$ C								

i) On what factors does the resistivity of material depends?

ii) Write the SI unit of resistivity

- iii) Name the material which act as best conductor?
- iv) Name the material which is used to make the heating elements of electric irons, toasters ?
- 13. Define the following
  - a) Smelting b) Gauge
- 14. How do you appreciate the role of molecules in the atmosphere for the blue colour of the sky?

## **SECTION - IV**

Note: 1. Answer all the Questions

2. Each Question carries 8 Marks

15.State and explain Aufbau principle with an example

#### (OR)

What is hybridisation? Explain the formation of BeCl<sub>2</sub> molecules using hybridisation

16. How do you find experimentally the focal length of bi-convex lens using UV method

(OR)

How can you verify that a current carrying wire produces a magnetic field with the help of an experiment?

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2x8=16