

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 contains 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 & 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.

 $6 \times 1 = 6$

1. Convert 30°C into Kelvin Scale
2. Chemical name of Common Salt is
3. State Pauli Exclusion Principle.
4. Statement 1 : $n + l$ value of 3s is 3.
 Statement 2 : $n + l$ value of 3s is 4.

Write the correct answer of the following in your answer booklet.

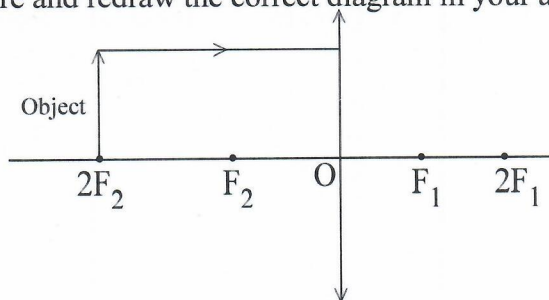
- A) Both Statements are correct. B) Statement 1 is only correct.
 C) Statement 2 is only correct. D) Both Statements are wrong.
5. When the length of a conductor is doubled then its' resistance will be _____ (When temperature and area of cross section remains constant)
 A) Increased B) Decreased C) become zero D) Unchange
6. Write any one use of Semiconductor.

SECTION – II

- Note:** 1. Answer all the Questions.
 2. Each Question carries 2 Marks.

 $4 \times 2 = 8$

7. Complete the figure and redraw the correct diagram in your answer booklet.



8. Write any two questions to understand differences between Myopia and Hypermetropia.
9. Assume and write the name of the element whose 4 quantum numbers are
 $n = 1, l = 0, m_l = 0, m_s = +1/2$
10. Write the metrial required to do an acitivity to prove water and air are essential for corrosion of Iron.

SECTION – III

Note: 1. Answer all the Questions.

2 Each Question carries 4 Marks.

$4 \times 4 = 16$

11. $\downarrow A$ $\downarrow B$ $\downarrow C$ $\downarrow D$ $\downarrow E$
- | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|

Based on the above pH scale values, answer the following questions.

- 1) Which is strongest acid among the A, B, C, D, E ?
 - 2) Which is strongest base among the A, B, C, D, E ?
 - 3) Which is weekest base among the A, B, C, D, E ?
 - 4) Which is neutral in natural among the A, B, C, D, E ?
12. **Read the following table and answer the following Questions.**
- | Matrial Medium | A | B | C | D |
|------------------|-----|-------|------|------|
| Refractive Index | 1.3 | 1.003 | 1.65 | 2.42 |
- 1) In which medium light travels fast in the above given medium ?
 - 2) In which medium light travels slower in the above given medium ?
 - 3) Which medium is more optically denser among all these media ?
 - 4) Write the units of refractive index.
13. Define the following.
- 1) Faraday's Law
 - 2) Lenz Law
14. What is Octet rule ? How do you appreciate role of the Octet rule in explaining the chemical properties of elements ?

SECTION-IV

Note: 1. Answer all the Questions.

2. Each Question has internal choice

3. Each Question carries 8 Marks

$2 \times 8 = 16$

15. How do the following properties change in a group and period ? Explain.
- | | |
|----------------------|----------------------|
| A) Atomic radius | B) Ionization energy |
| C) Electron affinity | D) Electronegativity |

(OR)

Write about cleansing action of Soap.

16. Explain the experimental procedure of finding the specific heat of solid.

(OR)

State Ohms Laws and explain the activity of prove it.

PART-B**SECTION – I**

Note: 1. Answer all the Questions.

2. Each Question carries 1 Mark.

$6 \times 1 = 6$

17. Give an example of a parasite plant.

18. Insects : trachea :: Fish : _____

19. I am an Italian doctor. I studied about the veins in the leg and noticed small valves in them.

Who am I ?

20. Which of the following statement is correct ?

A) A food chain always starts with producers.

B) A food chain always ends with producers.

21. Fill the gap with appropriate word.

Homologous organs

→

Divergent Evolution

Analogous organs

→

?

22. The Chipko Movement is associated with

a) Fishes

b) Reptiles

c) Birds

d) Trees

SECTION – II

Note: 1. Answer all the Questions.

2. Each Question carries 2 Marks

$4 \times 2 = 8$

23. Write two differences between afferent and efferent nerves.

24. If you visit a doctor what questions do you ask about pancreas ?

25. Ramu met with an accident. His blood did not clott even after 10 minutes. What is the name of this genetic disorder ?
26. Based on the information collected from your library about nervous system, how many pairs of cranial nerves are present in human beings ?

SECTION – III

Note: 1. Answer all the Questions.

2 Each Question carries 4 Marks.

$4 \times 4 = 16$

27. What is a tropic level ? What does it represent in an ecological pyramid.
28. What are the precautions to be taken to conduct Mohl's half leaf experiment ?
29. Complete the following table.

S.No	Name of the endocrine gland	Location	Hormone Secreted
1.	Thyroid	-	-
2.	Adrenal	-	-

30. Write 2 slogans about Organ Donation to create awareness among people.

SECTION-IV

Note: 1. Answer all the Questions.

2. Each Question has internal choice.

3. Each Question carries 8 Marks.

$3 \times 8 = 24$

31. Explain the structure of chloroplast with a neat labelled diagram.

(OR)

Write the differences between aerobic and anaerobic respiration.

32. What is Mastication ? Name the different types of teeth in human beings and write their functions.

(OR)

How does sex determination take place in humans ? Explain it with an example.

33. Draw a neat labelled diagram of Sperm Cell.

(OR)

Draw a neat labelled diagram of human excretory system showing Kidneys, Ureters and Urinary bladder.