BLUE PRINT FOR MODEL PAPER

Subject : GENERAL SCIENCE (Paper - I) **Max. Marks:** 50 **Time :** 2 hrs.45min

TABLE 1

WEIGHTAGE FOR ACADEMIC STANDARDS

SL.NO.	ACADEMIC STANDARD	WEIGHTAGE	MARKS
1	AS1	40%	20
2	AS2	10%	05
3	AS3	15%	7/8
4	AS4	15%	7/8
5	AS5	10%	05
6	AS6	10%	05
		100%	50

TABLE 2

TYPE OF QUESTIONS

SL.NO.	TYPE OF QUESTION	MARKS	QUESTION NO.s	TOTAL MARKS
1	VERY VERY SHORT	1/2	1 - 12	06
2	VERY SHORT	1	13 - 20	8
3	SHORT	2	21 - 28	16
4	ESSAY	4	29 - 33	20
TOTAL			33	50

MODEL PAPER FOR
SSC PUBLIC EXAMINATIONS - 2022

GENERAL SCIENCE - PAPER - I (English Version)

Class : X | Max.Marks : 50 | Time : 2hrs.45min.

Instructions :

1. *15 minutes of time is allotted for reading the question paper in addition to 2.30 hours for writing the answers.*
2. *All the answers should be written in the separate answer booklet.*
3. *There are four sections in the question paper.*
4. *There is an internal choice in Section IV.*
5. *Write all the answers visibly & legibly*

SECTION - I

12 × ½ = 6 M

Note:

1. *Answer all the questions.*
2. *Each question carries **1** mark*

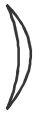
1. ..... is defined as the degree of hotness or coldness.
2. Latent heat of vapourisation of water is ..... ( )

   A) 500 cal/gm B) 540 cal/gm C) 80 K cal/gm D) 500 K cal/gm
3. Imagine and write which gas will be evolved generally when a metal reacts with an acid.
4. **A : Aqueous sodium chloride is called brine solution** **( )**

   B : $Mg(OH)_2$ is alkali solution (Alkali)

   K) Only A is true L) Only B is true

   M) Both A and B are true N) Both A and B false
5. Write any one use of a lens in our daily life ?
6. **Lens** **Shape** ( )

   1. Biconvex lens ( ) p) 

   2. Biconcave lens ( ) q) 

   r) 

   Match the above

   A) 1 - p, 2 - q B) 1 - q, 2 - p C) 1 - q, 2 - r D) 1 - r, 2 - p
7. Which is the coloured part that we see in our eye ?

8. Which of the following is the Planck's constant.

A) 6.626×10^{-34} JS B) 6.626×10^{-34} J/S

C) 6.626×10^{-27} JS D) 6.626×10^{-27} J/S

9. When asked Swarup to give examples for Halogens, he stated as Flourine, Chlorine, Neon, Bromine. By observing the examples given by Swarup find and write which element is not a halogen among them.
10. According to octet rule 'Argon' demonstrates stability, assume and write how many electrons are there in it's outer most orbit.
11. What is the SI unit of "Potential difference".
12. Write name of any metal that is helpful in our daily life.

SECTION - II

8 × 1 = 8 M

Note:

1. *Answer all the questions.*
2. *Each question carries **1** mark.*

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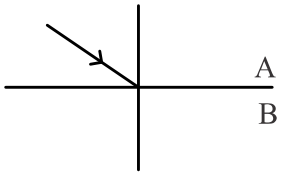
13. 

A is less optically denser than B. Keeping in view of optical densities rewrite and complete the diagram in your answer sheet.

14. Write any two required materials to determine the focal length of a lens using UV method in laboratory?
15. What is least distance of distinct vision of a healthy human ?
16. An electron in an atom has the following set of four quantum numbers.

n	l	m_l	m_s
2	O	O	+½

On the basis of the above table.

Which orbital does the electron belong.

17. Give any one example for Dobereiner's Triads.
18. Write any other name of 'Ionic Bond'.
19. What do you call a character of Electric conductor that opposes the motion of electron.
20. Write any two highly reactive metals you know.

SECTION - III

8 × 2 = 16 M

Note:

1. *Answer all the questions.*
2. *Each question carries* ***2*** *marks.*

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21. Assume and write why do we have sweat while doing work.
22. Let A, B, C materials have given red, yellow, red colours when react with methyl orange respectively.
    1) Among A, B, C which are acids, which are bases.
    2) What is the change in colour when phenolphthalein added to B.
23. Write any two required materials to do the activity to prove that 'the focal length of a lens depend on its surroundings and also write any one precaution to do this activity.
24. Doctor suggested to use 4D lens. What is the focal length of the lens?
25. Explain nl^x method briefly.
26. What is the bond angle of the following.
    1) Angle of $H\hat{O}H$ in water molecule
    2) Angle of $H\hat{N}H$ in Ammonia
27. Explain what happen to the value of resistance of a conductor if its cross sectional area is doubled and length is kept under constant.
28. Write any two questions to understand how the metals extracted from their ore ?

SECTION - IV

5 × 4 = 20 M

Note:

1. *Write answer for all all the questions.*
2. *There is an internal choice for each question.*
3. *All questions carry equal marks.*
4. *Each question carries 4 marks.*

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29. Write the appropriate reasons for the following phenomenon.
    a) Water melon brought out from a refrigerator retains its coolness for a longer time than other fruits.
    b) Oceans behave like heat store houses for the earth.

    (OR)

    What is myopia ? How can we rectify it?

30.

Solution	A	B	C	D	E	F
pH value	0	1	4	7	11	14

By observing the above table answer the following in A, B, C, D, E, F solutions.

1) Which is the strongest acid ?

2) Which is the weak acid ?

3) Which is the strongest base ?

4) Which is neutral ?

(OR)

Classify the following in to oxides, sulfides, sulfates separately.

Matter	Bauxite	Zinc Blend	Pyrolusite	Zincite	Heamatite	Cinnabar	Epsom salt	Galena
Formula	Al_2O_3 $2H_2O$	ZnS	MnO_2	ZnO	Fe_2O_3	HgS	$MgSO_4$ $7H_2O$	PbS

31. Write the lab activity to obtain a relationship between angle of incidence and angle of refraction (Snell's law)

(OR)

Write the lab activity to show that the ratio V/I (Ohm's law) is a constant for a conductor.

32. How the following periodic properties of atom trend in groups and periods.

A) Ionisation Energy

B) Electronegativity

C) Atomic radius

D) Electron affinity

(OR)

A, B and C are three elements with atomic numbers 6, 11 and 17 respectively then

1) Which of these can't form ionic bond ? Why ?

2) Which of these can't form covalent bond ? Why ?

33. An object is kept before a convex lens. Draw the ray diagrams to the following positions of object.

1) At $2F_2$

2) Beyond $2F_2$

(OR)

Draw a neat diagram of the filling order of atomic orbitals by electrons (Moeller's chart).

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