S.S.C PUBLIC EXAMINATION

MODEL PAPER-3

GENERAL SCIENCE ☆ PAPER - 1

Time :2½ Hours	PART - A & B	Max.Marks:50

Instructions: 1. Answer the question under **PART-A** on a seperate answer book.

2. Write the answer to the questions under **PART-B** on the question paper itself and attach it to the answer book of **PART-A**

Time : 2 Hours	PART - A	Max.Marks:35

Note: Use a seperate answer book to answer the questions in this part

SECTION-I   (5 X 2 = 10 M)

Note :- 1) Answer **ANY FIVE** questions, choosing atleast TWO from each group.

2) Each question carries '**TWO**' mark.

Group-A

1. What hapens to the water when wet clothes dry ?

2. Why do stars appears twinkling ?

3. List the applications of total internal reflection in your daily life.

4. Prove that $\dfrac{V}{I}$ =constant.

Group-B

5. Fresh milk has a P^H of 6. Explain why the P^H changes it turns into curd.

6. The wave length of radio wave is 1.0 m. Find its frequency.

7. Explain the formation of Cl_2 molecule using valence bond theory.

8. Write about the allotropic forms of carbon.

SECTION-II   (4 X 1 = 4 M)

Note :- 1) Answer **ANY FOUR** questions from the following.

2) Each question carries '**ONE**' mark.

9. How much energy is released or absorbed when 1gram of water at 0° C freezes to ice at 0° C?

10. What is Presbyopia.

11. What factors affect the resistance of a material?

12. Explain rancidity.

13. Write the names of any two ores of iron ?

14. Name the carboxylic acid used as preservative.

| SECTION-III | (4 X 4 = 16 M) |

Note :- 1) Answer **ANY FOUR** questions, choosing atleast **TWO** from each group.

2) Each question carries '**FOUR**' marks.

Group-A

15. Explain the procedure of finding the specific heat of solid experimentally.

16. How do you find the focal length of lens expermentaly.

17. Three resistors R_1, R_2 and R_3 are connected in parallel. Derive the equation for the resultant resistance.

18. How do you show the magnetic field due to a straight wire carrying current with an experiment?

Group-B

19. What is corrosion? How do you prevent corrosion of metals in your daily life?

20. How do you appreciate the role of electronic configuration of the atoms of elements in periodic classification?

21. Rainbow is an example for continuous spectrum. Explain.

22. How do you prepare ethanol using fermentation process? Write about the uses of ethanol in our daily life.

| SECTION-IV | (1 X 5 = 5 M) |

Note :- 1) Answer **ONE** of the following questions.

2) Each question carries '**FIVE**' marks.

23. Draw the ray diagram of reflection of light in concave mirrors as an object place at.

    a) Beyond the centre of curvature (beyond C)

    b) At centre of curvature

    c) In between focus point and centre of curvature (between F-C)

    d) At Focus point.

    e) In between pole of the mirror and focus point (between P-F)

24. Draw a neat diagram of representing electrolysis of water.

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Time: 30 Minutes	**PART - B**	Marks : 15

Instructions:
1) Answer All the questions.
2) Each question carries ½ mark.
3) Candidates must use the CAPITAL LETTERS while answering the multiple choice questions.
4) Marks will not be awarded in case of any overwriting, rewriting or erased answers.

Note: Answer the following questions in the space provided and attach it to the main answer book of **PART - A.**

I **Write the 'CAPITAL LETTERS' showing the correct answer for the following questions in the brackets provided against them.** **(20x½=10M)**

1. **The latent heat of fusion of ice is** [   ]

    a) 540cal/gm   b) 80cal/gm   c) 100cal/g,   d) 180 cal/gm

2. **When ice melts it's temperature** [   ]

    a) Remains constant   b) Increase

    c) Decrease   d) Cannot say

3. **Dentists .... mirrors are used.** [   ]

    a) concave   b) convex   c) plane   d) All

4. **Refractive index value of ruby is** [   ]

    a) 2.42   b) 1.71   c) 1.003   d) 3.51

5. **Lens formula is** [   ]

    a) $\dfrac{1}{f} = \dfrac{1}{U} + \dfrac{1}{V}$ b) $\dfrac{1}{f} = (n-1)\left(\dfrac{1}{u} - \dfrac{1}{v}\right)$ c) $\dfrac{1}{f} = \dfrac{1}{v} - \dfrac{1}{u}$ d) All

6. **............. colour light travels faster in glass.** [   ]

    a) Blue   b) Green   c) Orange   d) Red

7. **The amount of light entering in human eye is controlled by** [   ]

    a) Pupil   b) Iris   c) Retina   d) Cornea

8. **The resistance of an ideal voltmeter is** [   ]

    a) Small   b) Large   c) very large   d) very small

9. **The unit of magnetic flux.** [   ]

    a) Henry   b) Ampere   c) Weber   d) Farad

10. **................. works on the principle of electromagnetic induction** [   ]

    a) electric generator   b) galvanometer

    c) volt meter   d) ammeter

11. **Rancidity is a .... reaction.** [   ]

    a) Oxidation   b) Reduction   c) Redox   d) All

12. **Plaster of Paris is made from** [   ]

    a) Gypsum   b) bleaching powder

c) Baking soda   d) Washing soda

13. **The acid formed in stomach which help in digestion is a dilute solution of......**   [   ]

a) HCl b) H_2SO_4 c) CH_3COOH d) HNO_3

14. **............principle states that lowest energy orbitals are filled first**   [   ]

a) Pauli's   b) Hunds   c) Aufbau   d) Boyel's

15. **Quantum Theory was proposed by**   [   ]

a) Max well   b) Max Plank   c) Bohr   d) Sommerfeld

16. **...............is the least electronegative element.**   [   ]

a) Li   b) F   c) CS   d) Al

17. **The bond angle in Ammonia molecule is....**   [   ]

a) 107°. 48^1 b) 104°   c) 120°   d) 109°.28^1

18. **Inert gases except Helium contain ....electrons in its valence shell**   [   ]

a) 6   b) 8   c) 10   d) 16

19. **Galena is an ore of ....**   [   ]

a) pb   b) Ca   c) Sn   d) Cu

20. **The shape of Buckminister fullerene is ....**   [   ]

a) Pyramid   b) Tetra hydral   c) Soccer ball   d) Hexagonal

II   Fill in the blanks with suitable answers.

Each question carries ½ mark.   **(5x½=2½M)**

21. Evaporation is a ....phenomenon.

22. Shaving mirrors are .... mirrors.

23. Twinkling of stars is due to ....

24. Current is measured with an instrument called ....

25. .... theory involved in usage of ATM cards.

III   Match the following: **(5x½=2½M)**

A			B
26. Vinegar	[ ]		a. Calcium hydroxide
27. Slaked lime	[ ]		b. Magnesium hydroxide
28. Gypsum `	[ ]		c. Dilute Acetic acid
29. Milk of Magnesia	[ ]		d. Sodium carbonate
30. Washing soda	[ ]		e. Calcium sulphate di-hydrate.

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