*This Question paper contains 1 printed page. 19 A (S)*

**GENERAL SCIENCE, Paper -1**

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**Time: 2 Hours] PART – A [Marks: 35**

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**SECTION – I** 5 × 2 =10

**NOTE:** 1. Answer **ANY FIVE** questions choosing at least TWO from each Group.

2. Each question carries **TWO** marks.

**GROUP – A**

1. What are the factors that influence the value of g?
2. What is the principle of launching a satellite into an Orbit?
3. State inverse square law of magnetism?
4. State “Ohms” Law?

**GROUP – B**

1. Why do you add Hcl anf Nacl to Mgcl 2 during extraction of Mg?
2. Write he difference between Alkanes and Alkenes?
3. Calculate the number of moles of NaOH present in 750ml. of 0.4 M solution. (Molecular weight of NaOH = 40)
4. What are Amino acids? Give two examples?

**SECTION – II** 4 × 1 =4

**NOTE**: 1. Answer **ANY FOUR** questions choosing at least TWO from each Group.

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

1. What is the Pitch of Screw?
2. What is Population inversion?
3. Draw the symbol of Transistor?
4. Define Ionization energy?
5. Write short notes on P H ?
6. What is Catenation?

**SECTION – III** 4 × 4 =16

**NOTE**: 1. Answer **ANY FOUR** questions choosing at least TWO from each Group.

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

**GROUP - A**

1. Distinguish between Centripetal and Centrifugal force?
2. Derive R = R 1 + R 2 + R 3
3. What is a simple harmonic motion? What are its characteristics?
4. Draw the block diagram of a computer. Describe the function of each of the components?

**Group – B**

1. Explain the formation of a double bond?
2. How do you prepare a 0.1 M standard Na2Co3 solution using a 250 ml, standard flask? (Molecular weight of Na2Co3 =106)
3. Compare the structures of Diamond and Graphite?
4. What are the fertilizers? Give their types with examples?

**SECTION – IV** 1 × 5 =5

**NOTE**: 1. Answer **ANY ONE** of the following questions.

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

1. Sketch the diagram of a nuclear reactor showing various parts?
2. Draw the shapes of five “d” orbitals?

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***Ananda –B.Tech [E.E.E] 98664 00174***

**‘+’ COACHING CENTRE [A/C]**

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