This question paper contains 4 printed pages]

Your Roll No. .....

8081

B.Sc. (G)/(Hons.) **D**

HISTORY OF SCIENCE AND SCIENTIFIC METHOD

Time : 3 *Hours* *Maximum Marks* : 100

(Write your Roll No. on the top immediately on receipt of this question paper.)

Use separate answer-books for Section A and Section B.

Section A

(Marks : 50)

(Physical Sciences)

Attempt *three* questions only.

Question No. **1** is compulsory.

1. Match the following : 10×2

	Discovery/Invention		**Scientist Involved**
(1)	Wireless Technology	(*a*)	Isaac Newton
(2)	Combustion Engine	(*b*)	Otto Hahn
(3)	Dynamite	(*c*)	Marconi

P.T.O.

(4)	Air Pump	(*d*)	Paul Dirac
(5)	Antimatter	(*e*)	Edwin Hubble
(6)	Nuclear Fission	(*f*)	Rudolf Diesel
(7)	Universal Law of Gravitation	(*g*)	Alfred Nobel
(8)	Expanding Universe	(*h*)	J.J. Thomson
(9)	Electron	(*i*)	John Bardeen
(10)	Transistor	(*j*)	Otto von Guericke

2. Give an account of the life and work of any *two* of the following : 2×7½

(*a*) Albert Einstein

(*b*) C.V. Raman

(*c*) Marie Curie

(*d*) Johannes Kepler.

3. (*a*) What were *two* aims of the alchemist ? Describe the role of alchemy in the development of chemical processes. 7½

(*b*) What is hypothesis and how it is formed ? Describe with appropriate example how a hypothesis becomes law. 7½

4. Describe the development of any *two* of the following : 2×7½

   (*a*) Atomic Model

   (*b*) Big Bang Theory

   (*c*) Nuclear Energy

   (*d*) Heliocentric Model of the Universe.

5. Write short notes on any *two* of the following : 2×7½

   (*a*) X-Rays

   (*b*) Atomic Bomb

   (*c*) Telescope

   (*d*) Barometer.

Section B

(Marks : 50)

(Biological Sciences)

Attempt *three* questions only.

Question No. **1** is compulsory.

1. Match the following : 9×2

(*i*)	August Weisman	(*a*)	Cholera germ
(*ii*)	William Harvey	(*b*)	Germ cell theory
(*iii*)	Theophratus	(*c*)	Penicillin
(*iv*)	Alexander Fleming	(*d*)	Blood circulation

(*v*)	Frederick Banting	(*e*)	Homeostasis
(*vi*)	Claude Bernard	(*f*)	Malarial Parasite
(*vii*)	Ronald Ross	(*g*)	Control of cholera
(*viii*)	Waldemar Haffkine	(*h*)	Insulin
(*ix*)	Robert Koch	(*i*)	History of plants

2. Give a brief account of the following : 4×4

   (*a*) Discovery of hormones

   (*b*) Cell theory

   (*c*) Contribution of Charles Darwin

   (*d*) Koch's Postulates.

3. Write short notes on life and main contribution of any *four* of the following : 4×4

   (*a*) P. Maheshwari

   (*b*) Joseph Lister

   (*c*) Hargobind Khurana

   (*d*) William Harvey

   (*e*) Contribution of Vesalius.

4. What are antibiotics ? Discuss the development which led to the discovery of Penicillin. 4,12

5. Discuss the contribution of Mendal's work in the field of genetics. 16