

M.Sc. 3rd Semester Examination, 2022

ELECTRONICS

(History of Electromagnetic and Communications)

PAPER.— ELC-304(CBCS)

Full Marks : 50

Time : 2 hours

Answer any **four** questions each from Group-A and Group-B and **two** questions from Group-C

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

Answer any **four** questions : 2 × 4

1. What is frequency bandwidth ? 2
2. What are forward and backward channels ? 1 + 1

3. What is Faraday paradox ? 2
4. Who invented computer ? 2
5. Where JC Bose did carried his experiments ? 2
6. What is the full form of SIM ? 2

GROUP – B

Answer any **four** questions : 4 × 4

7. Briefly explain Hertz's experiment on electro-magnetism. 4
8. Write short note on Coherer. 4
9. Why the term electrodynamics and whose name is associated with it ? 2 + 2
10. Write short note on G. Marconi and his contribution to wireless communication. 4
11. Who invented crescograph ? What was his finding when a plant is exposed to radiation ? 1 + 3

12. What is artificial eye ? 4

GROUP – C

Answer any two questions : 8 × 2

13. What are cells in mobile communication system ?
Define frequency re-use. 4 + 4

14. Explain hands off process. 8

15. What are Galvani experiment and Voltaic pile ? 4 + 4

16. Define with example.

(i) Simplex communication system.

(ii) Half duplex communication system.

(iii) Full duplex communication system. 2 + 2 + 4

[*Internal Assessment – 10 Marks*]
