M.Sc. 4th Semester Examination, 2025

ELECTRONICS

(*Computer Network and Security*)

PAPER — ELC-404C

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** of the following questions : 2 × 4

1. What do you mean by network ?

2. Name the direction of data flows.

3. Define cryptography.

4. What are the necessary components of data communication ?

5. What do you mean by uniselector ?

6. What is de-multiplexing ?

GROUP—B

Answer any **four** of the following questions :

4×4

7. Compare different types of network.

8. Explain different types of topology.

9. Differentiate between FDM and TDM.

10. Explain about the data rates in PSTN.

11. Compare 1G, 2G, 2.5G and 3G generations.

12. Describe RSA algorithm for cryptography.

GROUP–C

Answer any **two** of the following questions :

8 × 2

13. Describe different types of network models.

14. Write short note on any two from the following :

4 + 4

(a) Gateway

(b) Repeater

(c) Router

15. Write short note on CDMA and ISDN.   4 + 4

16. What is wireless communication system ?
    Explain GSM architecture with proper
    diagram.   2 + 6

[Internal Assessment — 10 Marks]