2021

COMPUTER SCIENCE — GENERAL

Fourth Paper

(Group - A)

Full Marks : 50

The figures in the margin indicate full marks.

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

Answer *question no.* **1** and *any five* from the rest.

1. Answer *any five* questions :   2×5

    (a) Write two differences between ring and star topology.

    (b) What is parallel transmission mode?

    (c) Write the differences between half duplex and duplex transmission.

    (d) What are the functions of transport level of OSI model?

    (e) What is Geo-stationary satellite?

    (f) Distinguish between bridge and router.

    (g) What is a modem?

    (h) Give two advantages of fiber optic cable.

2. What are the differences between analog and digital transmission? Describe the architecture of email.
                                                                                            2+6

3. What is S/N ratio? Describe the term Shannon capacity. What are the differences between LAN and WAN?   2+3+3

4. Write down the differences between OSI and TCP/IP models. What is baud rate and band rate?   4+4

5. What do you mean by ISDN? Write two differences between cellular phone and cordless phone. 6+2

6. Describe the structure and application of coaxial cable. What are the differences between guided and unguided media?   6+2

7. Describe any two layers of OSI model. What are the differences between point to point and multipoint connections?   6+2

8. What is digital-to-analog conversion ? Briefly describe ASK and PSK.   2+6

Please Turn Over

9. Write short notes on *any two* : 4×2

   (a) Token ring

   (b) Infrared

   (c) DSN

   (d) Network security.

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