

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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