(05/25)

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B.A./B.Sc. EXAMINATION

(For Batch 2011 to 2020 Only)

(Sixth Semester)

COMPUTER SCIENCE

Paper–IV

Computer Networks

Time : Three Hours   Maximum Marks : $\begin{cases} \text{B.Sc.} : 30 \\ \text{B.A.} \ : 20 \end{cases}$

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** (any four parts of B.A. and all parts of B.Sc. is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) What do you understand by Communication ?

(b) What do you know about application protocols ?

(c) Write the definition of Gateways.

(d) What do you mean by Digital Carrier System ?

(e) Write the difference between switches and hub.

(f) What is Encryption ?

Unit I

2. What do you understand by OSI reference model ? Discuss its various layers.

3. Write short notes on the following :

(a) Frame relay and ATM networks

(b) Decentralized and Centralized system.

Unit II

What do you understand by Switching ? Explain the different types of switching techniques. Also find which one is the best and why ?

5. Discuss the various components of data communication and system transmission modes.

Unit III

6. What are framing techniques ? Discuss error detection and correction.

7. What do you understand by protocols ? Explain the various types of protocols.

Unit IV

8. What do you understand by Authentication ? Explain Public-key Algorithm and Symmetric-key Algorithms.

9. (a) What is Cryptography ? Discuss cryptography and authentication.

(b) Discuss Simple Network Management protocols.

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