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16142(D) - 0 DEC 2016

B. Tech 5th Semester Examination

Computer Networks (NS)

CS-314

Time : 3 Hours **Max. Marks : 100**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all, by selecting one question each from sections A, B, C, D and Question 9 Section E which is compulsory. All questions carry equal marks.

SECTION - A

1. What are the various layers of ISO-OSI model? Explain the role of each of these layers in detail. (20)

2. What are the various transmission medias used? Discuss with diagram each of these alongwith their relative merits and demerits. (20)

SECTION - B

3. Explain the followings:

   (a) Sliding window protocol.

   (b) Stop and wait protocol (20)

4. Discuss:

   (a) IEEE 802.3 and IEEE 802. 5 protocols

   (b) CSMA protocol (20)

SECTION - C

5. Explain the shortest path algorithm with suitable illustrations. (20)

6. List the various congestion control mechanisms and explain two of them in detail. (20)

SECTION - D

7. Explain the followings:

   (a) Flow control and Buffering

   (b) UDP

   (c) Function of transport layer. (20)

8. Explain:

   (a) Check sum with example

   (b) What are the techniques to improve quality of service? Briefly discuss them. (20)

SECTION - E

9. (a) What is the difference between switch and bridge?

   (b) Differentiate between flow and congestion controls.

   (c) List some of the quality of service parameters of transport layer.

   (d) What are the uses of computer networks?

   (e) What is protocol? Explain.

   (f) What sort of errors can parity check detect?

   (g) What do you understand by 'jitter'?

   (h) What is the difference between a physical and logical address?

   (i) What do you understand by multicasting?

   (j) What are the principles applied to arrive at the 7 layers of the OSI (10×2=20)