

20/6/16 AN

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**Question Paper Code : 27307**

**5 Year M.Sc. DEGREE EXAMINATION, MAY/JUNE 2016**

**Fifth Semester**

**Software Engineering**

**ESE 052 – COMPUTER NETWORKS**

**(Regulations 2010)**

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer ALL questions.**

**PART – A (10 × 2 = 20 Marks)**

1. List out the advantages of layered architecture.
2. Define error in terms of data communication.
3. Differentiate switches from bridges.
4. What is meant by packet switching?
5. Specify some of the internet working devices.
6. Differentiate adaptive from non-adaptive routing algorithms.
7. Give the role of IGMP in Multicasting.
8. Write about TTL.
9. What are the uses of reliable byte stream?
10. Mention some applications where UDP is preferred over TCP.

**PART – B (5 × 16 = 80 marks)**

11. (a) Explain in detail the ISO/OSI Reference model with a neat block diagram. (16)

**OR**

- (b) (i) Explain the error detection technique used in internet. (8)  
(ii) With suitable example, explain NRZ and NRZI encoding techniques. (8)

12. (a) Explain how the switching and forwarding functionality is carried out in a network. (16)

**OR**

- (b) (i) Explain the frame format of IEEE 802.3. (8)  
(ii) Explain the Timed Token Algorithm. (8)

13. (a) Describe the working principle of Distance-Vector routing algorithm. (16)

**OR**

- (b) Explain the addressing scheme and functions of IPV4. (16)

14. (a) Discuss in detail, multicasting principle with one of its protocol. (16)

**OR**

- (b) Write short notes on the following :

- (i) Internetworking (8)  
(ii) Global internet (8)

15. (a) Draw the format of UDP header and explain in detail about salient features of UDP. (16)

**OR**

- (b) Explain the detailed design and implementation of TCP along with state transition diagram. (16)