

**AQ – 2709**

Second Semester M. E. (Comp. Engg.) Examination

**NETWORK SYSTEM DESIGN**

Paper - 2 KMEF 1

P. Pages : 2

Time : Three Hours ]

[ Max. Marks : 80

- Note :** (1) Due credit will be given to neatness and adequate dimensions.  
(2) Assume suitable data wherever necessary.  
(3) Illustrate your answer wherever necessary with the help of neat sketches.  
(4) Use pen of Blue/ Black ink/refill only for writing the answer book.

1. (a) Explain various service requests and requirements. 7  
(b) Why is requirement analysis important to network architecture and design?  
Give any three reasons. 7

**OR**

2. (a) What are the various user requirements ? Explain. 7  
(b) Explain the importance of network analysis in understanding network and system complexity. 7
3. (a) Explain in brief user behavior and application behavior. 6  
(b) Explain interaction delay, human response time and network propagation delay estimates for user requirements. 7

**OR**

4. (a) Why reliability block diagrams are constructed ? Draw a sample RBD and explain. 6  
(b) Explain briefly when, where and How uptime should be measured by giving suitable example. 7
5. (a) What is flow prioritization ? Explain how flows can be prioritized ? 6

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- (b) What is flow specification ? Explain flowspec algorithm. 7

**OR**

6. (a) Explain Hierarchical client server flow model. 6  
 (b) Explain in how flows are usually identified and developed. 7
7. (a) Explain supernetting with suitable examples. 7  
 (b) Explain how routing protocols are applied and chosen ? 7

**OR**

8. (a) Explain how various addressing strategies are made and applied. 7  
 (b) While developing, addressing and routing architecture, explain the need to evaluate the sets of internal and external relationships. 7
9. (a) Explain in brief distributed and hierarchical management. 7  
 (b) Explain monitoring for event notification with suitable example. 6

**OR**

10. (a) Explain various recommendations for managing network management data. 7  
 (b) Explain traffic flow for In B and out-of-B and management by giving suitable sketches. 6
11. (a) What are the goals for the network performance ? Explain the problems addressed by the network performance architecture. 7  
 (b) Explain prioritization as a performance mechanism. 6

**OR**

12. (a) Explain in brief service level agreements. 7  
 (b) Explain in brief traffic management scheduling and queing. 6

