

M.C.A. Second Semester (First Year) (CGS)  
**15513 : Data Communication : 2 MCA 4 / 2 CS 4**

P. Pages : 1

Time : Three Hours



**AV - 3271**

Max. Marks : 80

- Notes : 1. Illustrate your answer necessary with the help of neat sketches.  
2. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Explain Data communication concepts in detail. 8  
b) Explain cellular Technology. State its features. 6

**OR**

2. a) What is interactive voice response system? Differentiate between IVR and voice mail. 8  
b) What are the different application areas of data communication? 6

3. a) What do you mean by Host-based Architecture and client-based architecture. 7  
b) What is line adaptor? Explain its working. 6

**OR**

4. a) Compare and contrast two-tier, three-tier and n-tier client-server architecture. 6  
b) Explain FDM? What are different application of FDM. 7

5. a) What is PCM? Explain. 7  
b) Briefly describe three important coding scheme. 6

**OR**

6. a) Explain various standard used in connector cables for communication circuit? 7  
b) What is modem? Explain different types of modem? 6

7. a) Explain the term transmission efficiency? What is throughput? 6  
b) What are the different sources of errors? 7

**OR**

8. a) Explain forward error correction method with hamming code? 7  
b) Explain SDLD in detail. 6

9. a) Explain X.25 standard for network? 7  
b) Explain static and dynamic routing? 6+1=7

**OR**

10. a) Describe the TCP packet format. 7  
b) How does multicasting work? 6+1=7

11. a) Explain dedicated-server and peer-to-peer LAN. 7  
b) Explain Arc Net-Versus Ethernet. 6

**OR**

12. a) List the components of LAN? Explain them with suitable diagram. 7  
b) Explain: 6

- i) Network hub  
ii) Access Points

- ii) Switches

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