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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Third Semester, - Master of Computer Applications (MCA)
Semester End Examination; Dec. - 2015
Computer Networks

Time: 3 hrs   *Max. Marks: 100*

Note: Answer **FIVE** full questions selecting **ONE** full question from **each unit**.

UNIT - I

1 a.	List and explain the uses of computer Networks.	10
b.	Briefly explain the categories of Network.	6
c.	Differentiate between connection oriented service and connection less services.	4
2 a.	With a suitable diagram, explain OSI Network architecture. Compare it with TCP/IP.	10
b.	Explain different types of Topology.	10

UNIT - II

3 a.	Enumerate different types of guided transmission media.	10
b.	Explain Terrestrial and Satellite microwave wireless Transmission.	10
4 a.	Explain frequency division and time division multiplexing.	10
b.	Illustrate the working of sliding window protocol.	10

UNIT - III

5 a.	Explain carrier Sense multiple Access protocols.	6
b.	With a neat diagram explain the 802.3 frame structure.	8
c.	List the services provided by 802.11 standards.	6
6 a.	With a neat diagram explain 802.16 protocol stack.	10
b.	Write a short note on: i) Spanning tree bridges ii) Remote Bridges	10

UNIT - IV

7 a.	Explain the design issues of Network layer.	10
b.	Explain distance-vector Routing algorithm with an example	10
8 a.	Explain IPv4 header format with suitable diagram.	10
b.	Narrate the Leaky bucket algorithm.	10

UNIT - V

9 a.	Explain TCP header format with suitable diagram.	10
b.	Discuss three-way handshake algorithm for connection establishment.	6
c.	Write a note on Remote procedure call.	4
10 a.	Write a short note on: i) DNS Name Space ii) World Wide Web	10
b.	Narrate the architecture and services of the email system.	10

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