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M.E. / M.TECH. DEGREE EXAMINATIONS, MAY/JUNE 2017
SECOND SEMESTER

NW16015 – HIGH PERFORMANCE NETWORKS

(Common to Applied Electronics and Communication Systems)

(Regulation 2016)

Q. Code: 143038

Time: Three Hours

Maximum : 100 Marks

Answer **ALL** questions

PART A - (10 X 2 = 20 Marks)

1. Compare circuit switching and packet switching.
2. What is meant by multiplexing and demultiplexing?
3. List out the applications of Multimedia networking and its characteristics.
4. What is RSVP?
5. Define overlay network? Give suitable examples.
6. What is meant by tunnelling?
7. State Little's Theorem.
8. Specify the failures of Poisson Modeling.
9. What is a cryptanalysis? List out the possible attacks on cryptosystem.
10. Write short notes on SSL.

PART B - (5 X16 = 80 Marks)

11. (a) (i) Explain in detail about the TCP/IP layers for internetworking and management. (6)
(ii) Write short notes on SONET. (6)
(iii) Explain about the transmission modes available for data flow. (4)

(OR)

- (b) (i) Describe the protocol architecture of ATM network with neat sketches. (8)

- (ii) Briefly explain the principle, protocol architecture and features of ISDN. (8)
12. (a) (i) Explain the goals, characteristics and applications of RSVP. (8)
- (ii) Describe in detail about the protocols for real time interactive applications. (8)
- (OR)**
- (b) (i) Explain the various scheduling and policing mechanisms of multimedia networking in detail. (8)
- (ii) Explain the various integrated and differentiated services in detail. (8)
13. (a) Describe the concepts of Virtual Private Network (VPN) in detail. (16)
- (OR)**
- (b) Explain MPLS operation, Routing, tunneling and use of FEC in detail. (16)
14. (a) Specify the need for modeling and explain the Poisson modeling in detail. (16)
- (OR)**
- (b) (i) Describe the non-poisson models in detail. (8)
- (ii) Write short notes on network performance evaluation. (8)
15. (a) (i) Explain the technical details of firewall and describe any three types of firewalls with examples. (8)
- (ii) Explain about the Authentication protocols in detail. (8)
- (OR)**
- (b) (i) Draw the architecture and give the significance of SNMP. (8)
- (ii) Give a note on the structure of MIB. (4)
- (iii) Write short notes on ASN.1 (4)