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# B.TECH. DEGREE EXAMINATION, MAY 2016

## Eighth Semester

Branch: Electronics and Communication Engineering EC 010 802—COMMUNICATION NETWORKS (EC)

(New Scheme—2010 Admission onwards)

[Regular/Supplementary]

Time: Three Hours

Maximum: 100 Marks

### Part A

Answer all questions. Each question carries 3 marks.

- 1. Explain the concept of layering focusing on its advantages.
- 2. Give a brief description about CSMA.
- 3. What do you mean by virtual networks? Explain.
- 4. Mention the main features of ATM.
- 5. Write short note on fire wall.



 $(5 \times 3 = 15 \text{ marks})$ 

### Part B

Answer all questions. Each question carries 5 marks.

- 6. Explain circuit switching and packet switching.
- 7. Write short note on the scheduling approaches to medium access control.
- 8. How is error reporting done in ICMP?
- 9. Explain how addressing and signalling is done in ATM.
- 10. Differentiate symmetric and asymmetric key cryptography. Explain.

 $(5 \times 5 = 25 \text{ marks})$ 

#### Part C

Answer all questions. Each question carries 12 marks.

11. Describe the OSI model and TCP/IP model used in network architecture.

Or

12. With the help of neat diagrams, explain the various switching methods.

Turn over

13. Explain the various random access protocols used in networking.

Or

- 14. Describe in brief any four standards for LAN's.
- 15. (a) Differentiate classful and class less addressing.

(4 marks)

(b) Explain ICMP, used for error reporting.

(8 marks)

Or

- 16. Describe the following protocols:
  - (i) ARP.

(6 marks)

(ii) BGP.

(6 marks)

17. Explain the various adaptation layers in ATM.

Or

- 18. Describe in detail the header structure of ATM with neat diagram.
- 19. Explain briefly the pretty good privacy protocol.

Or

20. Describe the IP sec protocols used to provide security focussing on authentication header protocol and encapsulating security payload protocol.

 $(5 \times 12 = 60 \text{ marks})$