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Eighth Semester B.E. Degree Examination, Dec.2016/Jan.2017
High Performance Computer Networks

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

- 1 a. Describe the key innovations in telephone networks. (10 Marks)
- b. Explain the four networking principles that underlie the growth of communication network services. (10 Marks)
- 2 a. Discuss the implementation of layers in a layered architecture. (08 Marks)
- b. Explain with a neat sketch, open data network model. (08 Marks)
- c. Give comparison between connection oriented and connection – less service. (04 Marks)
- 3 a. Explain with a neat sketch, TCP header and the steps involved in a TCP connection. (12 Marks)
- b. Explain with a neat sketch, the IPV6 header structure. (08 Marks)
- 4 a. Discuss with a neat diagram, V.34 modem. (05 Marks)
- b. Explain with a neat sketch, passive photonic loop. (05 Marks)
- c. What is INA? Explain the network elements, and its functional components. (10 Marks)

PART – B

- 5 a. With a neat diagram, explain ATM header structures. (10 Marks)
- b. Discuss ATM adaption layer, with suitable diagram s. (10 Marks)
- 6 a. Write a short note on Adhoc wireless network and IMT – 2000. (10 Marks)
- b. Differentiate between home RF and Bluetooth. (04 Marks)
- c. Discuss mobility management in wireless network. (06 Marks)
- 7 a. Discuss the blocking operation in circuit switched network with the help of neat diagram. (10 Marks)
- b. Discuss datagram networks queuing model and key queuing result with suitable diagrams. (10 Marks)
- 8 a. How does a WDM system work? How does WDM offer protocol transparency? (10 Marks)
- b. Explain ring networks and hierarchical mesh networks with suitable diagrams. (10 Marks)

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