## CBCS Scheme

USN 15CS/IS52

# Fifth Semester B.E. Degree Examination, June/July 2018 Computer Networks

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

#### Module-1

a. What are the different types of transport services provided by the internet? (08 Marks)

b. Compose logical note on proxy-server with suitable diagram.

(08 Marks)

#### OR

2 a. Discuss how files are distributed in peer-to-peer application. (08 Marks)

b. Design network application using socket programming with UDP.

(08 Marks)

## Module-2

3 a. Describe the various fields of UDP segment. Explain how Checksum is calculated.(08 Marks)

b. Design rdt 2.0 protocol.

(08 Marks)

#### OR

4 a. With a neat sketch, explain the TCP segment and its services. (68 Marks)

b. Explain how connection is established and tear down in TCP.

(03 Marks)

#### Module-3

5 a. Draw IPv6 datagram format, mention the significance of each fields.

(08 Marks)

b. Apply distance –vector algorithm for the following Fig.Q5(b).

(08 Marks)

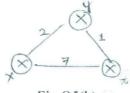


Fig.Q5(b)

#### OR

6 a. Illustrate Routing Information Protocol (RIP) with suitable diagram.

(08 Marks)

b. Explain the spanning tree algorithm.

(08 Marks)

## Module-4

7 a. Define cellular network. Give the overview of GSM cellular network architecture. (08 Marks)

b. Explain the two different types of routing approaches to mobile node.

(08 Marks)

### OR

8 a. Explain the following concepts of mobile-IP: i) Agent discovery ii) Registration with home agent.

(08 Marks)

b. Illustrate the steps involved when a base station does decide to hand-off a mobile user.

(08 Marks)

## Module-5

9 a. Brief out three broad categories of multimedia network applications.

(08 Marks)

b. Discuss the followings: i) Adaptive streaming ii) DASH.

(08 Marks)

#### OR

10 a. With general format, explain the various fields of RTP.

(08 Marks)

b. Explain the working procedure of leaky bucket algorithm.

(08 Marks)

\* \* \* \* \*