336305

December, 2019
B.Sc. (Mathematics) - III SEMESTER
Computer Network and Internet Technology (OCSC-301)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART - A

1. (a) List three criteria for necessary for an effective and efficient network. (1.5)

    (b) Differentiate between point-to-point and point-to-multipoint network structure. (1.5)

    (c) Draw a hybrid topology with a star backbone and three ring networks. (1.5)

    (d) Differentiate between a port address, a physical address and a logical address. (1.5)

(e) Discuss the significance of twisting in twisted pair cable. (1.5)

(f) List the difference between soft handoff and hard handoff. (1.5)

(g) Describe the significance of meta search engine. (1.5)

(h) How can we create links to sections within the same page. (1.5)

(i) What are some common lists that are used in designing a web page. (1.5)

(j) A telephone line normally has a bandwidth of 3000 Hz (300 to 3300 Hz) assigned for data communication. The SNR is usually 3162. What will be the capacity for this channel? (1.5)

PART - B

2. (a) Illustrate the application areas of computer networks. (10)

(b) Discuss hardware devices operating on network support layers. (5)

3. (a) Describe the functions of mobile switching center. (5)

(b) Discuss TCP/IP reference model in detail. (10)

4. Explain working of search engine using suitable block diagram. (15)

5. (a) Discuss the advantages of optical fiber over twisted pair and coaxial cable. (8)

(b) Explain the cellular telephony system in detail. (7)

6. (a) Explain various types of satellite used in wireless communication. (5)

(b) Create the following table using appropriate HTML tags : (5)

	Monday	Tuesday	Wednesday	Thursday	Friday
6 – 7 pm	Look at website	free	Implementation	free	free
7 – 8 pm	Take some notes	free	Implementation	free	free

(c) Describe the attributes of Frameset tag. (5)

7. Write short note on :

(a) Absolute vs. Relative links in HTML.

(b) Telnet.

(c) FTP. (15)