Exam.Code:0031 Sub. Code: 0947

2021

Bachelor of Computer Application Fifth Semester

BCA-16-501: Computer Networks

Time allowed: 3 Hours

Max. Marks: 65

NOTE: Attempt <u>five</u> questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I-IV.

x-x-x

UNIT - I

- I. What are the uses of computer networks? Explain various topologies used in computer networks with advantages and limitations of each. (13)
- II. Discuss the concept of multiplexing. Explain various types of multiplexing in detail. (13)

UNIT - II

- III. List major design issues of data link layer. Discuss data link protocols for noisy and noiseless channels. (13)
- IV. Explain the significance of error detection and error correction codes for data transfer. Construct the hamming code for bit sequence 1001110. (13)

<u>UNIT – III</u>

- V. Discuss various IP address classes highlighting the concept of sub netting and subnet mask. (13)
- VI. Explain the principles of congestion control. Discuss working of leaky bucket and token bucket algorithms. (13)

UNIT - IV

- VII. Explain the architecture and services of electronic mail in detail. Write a note on MIME. (13)
- VIII. Write note on:
 - a) SMTP
 - b) POP
 - c) DNS (13)

P.T.O.

UNIT - V

IX.	An	Answer the following:-		
	a)	What is switching?	(3)	
	b)	Define ISDN.	(2)	
	c)	Differentiate between static and dynamic channel allocation.	(2)	
	d)	Write a note on flooding.	(2)	
	e)	What is the significance of HTTP?	(2)	
	f)	Define FTP.	(2)	

X-X-X

