University Institute of Engineering & Technology

(Recognised Under Section 2(f) and 12B of UGC)

Kurukshetra University, Kurukshetra

TIME – 3 Hrs 15 Min

THEORY EXAMINATION –JAN 2021	
B.TECH - ECE	**SEMESTER –V**

M.M. - 56

PAPER - ECO-I	**SUBJECT- Computer Networks**

INSTRUCTIONS TO BE FOLLOWED

- **Allotted time for examination is 3 hours 15 minutes that includes time for downloading the question paper, writing answers, scanning of answer sheets and E-mailing the PDF files to the designated Email ID.**
- **For ECE-A Regular Students, the Email ID is:- btech5thecea@kuk.ac.in**
- **For ECE-B Regular Students, the Email ID is:- btech5theceb@kuk.ac.in**
- **The candidates will be required to attempt 75% of the question paper (maximum) by choosing to their any best questions accumulating 56 marks.**
- **The PDF files should be saved as Roll No. and Subject Code. Proper attention should be given while sending the email and in the subject line, the Roll Number and Subject Code should be mentioned.**
- **Maximum Page Limit should be 20 (Twenty) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the Kurukshetra University Examination guidelines.**
- **Over-attemptation should be avoided.**
- **Handwriting should be neat and clean and diagrams should be clear and contrasted.**
- **The candidate should not write their Mobile No. otherwise Unfair Means Case will be made.**
- **While attempting the paper, the candidate will use blue/black pen only.**
- **Before attempting the paper, the candidate will ensure that he/she has downloaded the correct question paper. No complaint for attempting wrong question paper by the candidate will be entertained.**
- **Candidate must ensure that he/she has put his/her signature on each page of the answer sheet used by him/her. Answer sheet without the signature of the candidate will not be evaluated.**

PART-A

Q. No. – 1 Answer the following questions. 15x1=15

(i)	Define the term protocol.
(ii)	Discuss the advantages of digital communication over analog communication.
(iii)	List some of the applications of data communication and networking.
(iv)	What is addressing? How it is used in digital communication.
(v)	What is the difference between flow control and error control?
(vi)	List the protocols of transport layer of OSI model.
(vii)	Differentiate between wired LAN and wireless LAN.
(viii)	What is HDLC?
(ix)	What are the design issues of network layer?
(x)	Define routing with the help of an example.
(xi)	Differentiate between noisy and noiseless channels.
(xii)	What is ARP?
(xiii)	List the applications of cryptography.
(xiv)	What is file access and management?
(xv)	Difference between packet switching and circuit switching.dddddd

PART-B

2	What is ISDN? Compare narrowband ISDN with wide band ISDN.	5
3	What are Point to point protocols? Discuss in brief.	5
4	What is internetworking? Discuss in brief.	5
5	What is HTTP?	5

PART-C

6	Differentiate between guided and unguided media. Give examples of each and also draw necessary diagrams to support your answer.	10
7	Contrast and compare TCP/IP protocol model with the OSI model. Also, discuss the functions of each layer in detail.	10
8	How Go back N automatic repeat request is better than Go back N automatic repeat Request. Explain with the help of an example.	10
9	What is ALOHA? Differentiate between pure Aloha and slotted aloha. Disscuss in detail.	10
10	Compare IPV4 with IPV6. Also draw and discuss the frame format of IPV6 header.	10
11	What is Congestion control? What is Leaky bucket algorithm? Discuss in detail.	10
12	Discuss the following (i) Electronic mail (ii) WWW	10
13	What are the design issues of application layer? Discuss in detail.	10