***University Institute of Engineering & Technology***

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

***Kurukshetra University, Kurukshetra***

| THEORY EXAMINATION – JULY 2021 | |
|---|---|
| **B.TECH – ECE** | **SEMESTER – VI** |

**TIME – 4 Hrs.**

**M.M. - 75**

**PAPER - ECE-308**

**SUBJECT- Computer Communication Networks (Re-appear)**

## INSTRUCTIONS TO BE FOLLOWED

- **The candidates will be required to attempt All questions in Part-A and Part-B (Compulsory Sections). Attempt any four questions from Part-C selecting at least one from each unit.**
- **Allotted time for examination is 4 hours that includes time for downloading the question paper, writing answers, scanning of answer sheets and uploading the sheets on the Attendance Sheet Cum Answer Sheet Uploading google form.**
- **For all ECE Reappear students, they should join the Google Meet Link and WhatsApp Link for Section-B Students for appearing in the exam and should upload their sheets in the Attendance Sheet Cum Answer Sheet Uploading Google Form meant for ECE-B regular students.**
- **The PDF files should be saved as Roll No. and Subject Code.**
- **Maximum Page Limit should be 36 (Thirty Six) for attempting the question paper on A4 sheets which could be downloaded and printed from the sample sheets given in the UIET Website.**
- **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.**
- **Attempt parts A, B & C separately. Do not inter-mix them. Write neatly & mention the question number clearly.**

## PART-A (15 Marks)

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

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|---|---|
| (i) | List some applications of computer networks. |
| (ii) | Differentiate between an analog and a digital signal. |
| (iii) | What is a protocol? |
| (iv) | What are the applications of physical layer in an OSI model? |
| (v) | List data link layer design issues. |
| (vi) | What is flow control and error control? |
| (vii) | Differentiate between TCP and UDP. |
| (viii) | What is process to process delivery? |
| (ix) | What is abstract syntax notation? |
| (x) | Define data compression. |
| (xi) | Differentiate between guided and unguided media. |
| (xii) | List some protocols of application layer. |
| (xiii) | What is addressing? |
| (xiv) | List the design issues of network layer. |
| (xv) | Differentiate between public key and private key cryptography. |

## PART-B (20 Marks)

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|---|---|---|
| | **UNIT-I** | |
| **2** | **Discuss in brief the working of telephone system.** | **5** |
| | **UNIT-II** | |
| **3** | **Write a short note on Satellite networks.** | **5** |
| | **UNIT-III** | |
| **4** | **What is Leaky bucket algorithm? Discuss in detail.** | **5** |
| | **UNIT-IV** | |
| **5** | **Differentiate between lossy and lossless methods of data compression.** | **5** |

## PART-C (40 Marks)

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|---|---|---|
| | **UNIT-I** | |
| **6** | **Compare OSI model with TCP/IP model. Discuss the function of different layers in both the models.** | **10** |
| **7** | **What is ATM? Discuss its working principle. How is narrowband ATM different from Broadband ATM? Discuss in detail.** | **10** |
| | **UNIT-II** | |
| **8** | **(a) Discuss the working of point to point protocols.** | **10** |

| | | |
|---|---|---|
| | **(b) Differentiate between noisy and noiseless channels.** | |
| **9** | **What is ALOHA protocol? How is pure ALOHA different from slotted ALOHA.** | **10** |
| | **UNIT-III** | |
| **10** | **Discuss the addressing and header of IPV4 protocol. How it is different from IPV6.** | **10** |
| **11** | **(a) What is Remote Procedure Call? Discuss.**<br>**(b) How is UDP different from TCP?** | **10** |
| | **UNIT-IV** | |
| **12** | **(a) How is symmetric key cryptography different from asymmetric key?**<br>**(b) List the design issues of presentation layer.** | **10** |
| **13** | **Write short notes on any two of the following:**<br>**(a) File transfer protocol**<br>**(b) Electronic mail**<br>**(c) WWW** | **10** |