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GIET UNIVERSITY, GUNUPUR – 765022
M. C.A. (Third Semester) Examinations, January-2023
MCA20302– COMPUTER NETWORKS

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A**(2 x 10 = 20 Marks)**Q.1. Answer **ALL** questions

- What is the difference between a passive and an active hub ?
- What are the responsibilities of data link layer?
- What is the function of SMTP?
- Define multiplexing and de-multiplexing ?
- What are the different protocols used in routing ?
- What do mean by IEEE 802.11 ?
- What do mean by carrier sense multiple access?
- Define unicast and Multicast?
- What is Media Access Control?
- What is the purpose of physical layer ?

PART – B**(10 x 5 = 50 Marks)**Answer **ANY FIVE** questions**Marks**

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| 2. a. Describe about Token Ring ? | 4 |
| b. Define the architecture of FDDI with a suitable diagram ? | 6 |
| 3.a. Differentiate between pure ALOHA & slotted ALOHA ? | 5 |
| b. A pure ALOHA network transmits 200-bit frames on a shared channel of 200 kbps. What is the throughput if the system (all stations together) produces 1000 frames per second ? | 5 |
| 4. a. Define about congestion in computer networks ? | 4 |
| b. Discuss about different congestion control algorithms ? | 6 |
| 5.a. Describe about CSMA/CA ? | 5 |
| b. Differentiate between CSMA/CA & CSMA/CD ? | 5 |
| 6. a. Describe about TCP header structure ? | 6 |
| b. Describe about ICMP ? | 4 |
| 7.a. Describe about working of ARP with a suitable diagram ? | 5 |
| b. Differentiate between ARP & RARP ? | 5 |
| 8. a. Describe about PGP ? | 5 |
| b. What is the use of MIME protocol explain with a suitable diagram ? | 5 |

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