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**MCADD-602**

**M.C.A. (Integrated), VI Semester**

Examination, May 2022

**Advanced Computer Networks**

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Describe OSI model. How the interaction between layers in the OSI model?  
b) The TCP/IP model is more robust than the OSI model. Is it a correct statement? Justify your answer?
2. a) Differentiate between modulation and demodulation by an example.  
b) Explain Carrier Sense Multiple Access with Collision Detection algorithm (CSMA/CD).
3. a) Describe even and odd parity checking. In an odd parity checking scheme, what is the value of the parity bit for the following sequence  
0101101  
b) Describe stop and wait and sliding window methods of flow control.

4.
  - a) Describe Internetworking connecting devices in reference to layers.
  - b) Discuss different standards of Ethernet.
5.
  - a) What is a finite state machine? Differentiate between deterministic and non deterministic finite state machine.
  - b) How Open Shortest Path First (OSPF) work? Explain with an example.
6.
  - a) Explain the concept of Token box and Token ring.
  - b) Explain the following:
    - i) Repeater
    - ii) Bridges
7.
  - a) Discuss about the importance of simple Network management protocol.
  - b) What is DNS? Why is it required?
8. Write short notes on any two of the following:
  - i) Congestion and Dead locks
  - ii) SNMP
  - iii) Hemming code
  - iv) ATM

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