

[35101]

**M.C.A DEGREE EXAMINATIONS**

**THIRD SEMESTER**

**Paper - I: COMPUTER NETWORKS**

*(2016-17, 2017-18, 2018-19 and 2019-20 Admitted Batches)*

**Time : 3 Hours**

**Maximum : 75 Marks**

**SECTION - A**

**Answer ALL Questions.**

**(4×15=60)**

1. a) Explain the tcp/ip reference model with neat diagram.  
(OR)  
b) Explain the significance of switching ? What are different switching techniques used in computer networks ? Discuss.
2. a) Explain in detail the error detection and error corrections.  
(OR)  
b) What is the format of IPv4 header? Describe the significance of each field.
3. a) Describe the process of data transmission using UDP and the concept of UDP datagrams.  
(OR)  
b) Write short notes on the following:  
i) FTP  
ii) HTTP
4. a) What is the significance of Bridges? Explain the different types of Bridges.  
b) Discuss the role of routers in computer networks and explain their function in forwarding data between networks.  
(OR)  
c) Explain the concept of cellular networks and describe the key components and architecture of cellular networks.

## SECTION - B

**Answer any FIVE questions.**

**(5×3=15)**

5.    a)    What is unicasting multicasting and broadcasting?  
      b)    What are the different types of ATM interfaces?  
      c)    Explain about MAN.  
      d)    Define ICMP.  
      e)    What are the advantages of using UDP over TCP?  
      f)    What is a firewall?  
      g)    What is NIC?  
      h)    What is an adhoc network?
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