Roll No. .....

Y – 3104

M.Sc. (Second Semester)

EXAMINATION, May/June 2021

COMPUTER SCIENCE

Paper – 204

(Computer Networks)

Time : Three Hours

Maximum Marks : 85 *Minimum Pass Marks : 29*

Note : Attempt *all* questions.

Unit-I

1. Give the diagram of various layers of ISO-OSI model. Briefly, explain function and uses of each layer. 17

Unit-II

2. Giving suitable diagram, explain CRC in brief. 17
   For a given message M = 11100011 and pattern P = 110011. Find the transmitted message and also check the correctness of received message at receiver by using CRC.

Unit-III

3. Write explanatory short notes on any three of the following : 17
   (i) Random Access Data Networks
   (ii) Local Area Network
   (iii) Pure ALOHA
   (iv) Slotted ALOHA
   (v) IEEE 802.5 protocol
   (vi) IEEE 802.4 protocol

Unit-IV

4. (a) What do you understand by 'sliding window protocol' ? Explain clearly how does this protocol improves the efficiency of the network.
   (b) Define 'Deadlock'. Explain clearly why it occurs. Discuss the methods to avoid occurrence of deadlock. 17

Unit-V

5. (a) What are different functions of transport layer ? Discuss briefly the primitives and connection management in transport layer.
   (b) Which layer in OSI reference model is responsible for data compression and data encryption ? Describe the function and process used in brief. 17