

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: CSE**

**SEMESTER : V
SESSION : MO/19**

SUBJECT: CS6107 COMPUTER NETWORK

TIME: 3 HOURS

FULL MARKS: 60

INSTRUCTIONS:

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
 2. Candidates may attempt any 5 questions maximum of 60 marks.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What is the relationship between services and protocol? [2]
Q.1(b) How we can calculate total latency during communication for M hops and N packets. [4]
Q.1(c) Briefly describe the functions of each layer in the OSI model. [6]
- Q.2(a) Define the character stuffing. [2]
Q.2(b) How sliding window protocol can provide the service to preserve the order in which frames are transmitted. [4]
Q.2(c) The following bitstream is encoded using VRC, LRC and even parity. Locate and correct the error if it is present. [6]
 11000011 11110011 10110010 00001010 00101010 00101011
 10100011 01001011 11100001
- Q.3(a) What is the transceiver? [2]
Q.3(b) Define the frame format for 802.11 [4]
Q.3(c) Explain the Bluetooth technologies. [6]
- Q.4(a) What is an Internetwork? [2]
Q.4(b) What is the difference between the forwarding table and routing table? [4]
Q.4(c) Explain the packet header format for IPv4. [6]
- Q.5(a) Define the virtual circuit network. [2]
Q.5(b) What is IP multicast? [4]
Q.5(c) Write a short note on MPLS. [6]
- Q.6(a) Define the RPC protocol. [2]
Q.6(b) What is Three-way-Handshake? [4]
Q.6(c) Describe the Transmission Control Protocol. [6]
- Q.7(a) Define the congestion in the network. [2]
Q.7(b) What is the difference between congestion control and flow control? [4]
Q.7(c) Explain the FIFO queuing technique. [6]

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