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M.Sc. (IIIrd Semester) Examination, 2020
COMPUTER SCIENCE

(Data Communication & Computer Networks)

Time Allowed : Three Hours

Maximum Marks : 70

SECTION - A

Note : Attempt any ten questions. Each question carries

one mark. **1×10=10**

Q. 1. Objective type :

(A) Fill in the blanks :

(i) Bits can be send over guided and unguided

media as analog signal by _____.

(ii) Full form of SLIP _____.

(iii) The four byte IP address consist of

_____.

(iv) Transport layer can identifies the

symptoms of oveloaded nodes using

_____.

(v) The _____ layer lies between session

layer and application layer.

(B) Multiple choice questions :

(vi) Wireless transmission can be done via :

(a) Radio waves

(b) Microwaves

(c) Infrared

(d) All of above

(vii) Which one of the following is a data link

protocol ?

(3)

(a) Ethernet

(b) Point to point protocol

(c) HDLC

(d) All of above

(viii) Which category of HDLC frame undergoes error and flow control mechanism by comprising send and receive sequence number :

(a) U frames

(b) I frames

(c) S-frames

(d) All of the above

(4)

(ix) The network layer concern with :

(a) Bits

(b) Frames

(c) Packets

(d) None of above

(x) TCP is the standard protocol with Std. No.

(a) 5

(b) 4

(c) 7

(d) 3

(xi) Which address is used in an internet employing the TCP/IP protocols?

(a) Physical and logical address

(b) Port address

(c) Specific address

(d) All of the above

(xii) Which layer provide the services to user :

    (a) Application layer

    (b) Session layer

    (c) Presentation layer

    (d) None of above

SECTION - B

Note : Attempt any five questions. Each question carries 2

marks. **2×5=10**

Q. 2. Very short answer type (25-30 words) :

    (i) Define WAN.

    (ii) Write full form of PPP.

    (iii) What are subnets ?

    (iv) Define TCP.

    (v) Write full form of DNS and SNMP.

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(vi) Define flow control.

(vii) What is ATM ?

SECTION - C

Note : Attempt any five questions. Each question carries 4

marks. **4×5=20**

Q. 3. Short answer type (250 words) :

    (i) Describe different design issues in layers,

        interfaces and services.

    (ii) Explain data link layer in internet with suitable

        example.

    (iii) Define and describe internet multicasting.

    (iv) Describe the services of transport layer

        services.

    (v) Explain different application layer protocol.

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(vi) Define sliding window protocol with example.

(vii) Describe concept of data transmission.

SECTION - D

Note : Attempt any three questions. Each question carries

10 marks.   **3×10=30**

Q. 4. Essay type (more than 500 words) :

(i) What do you mean by communication and

geosynchronous satellite ? Explain it with

example.

(ii) Explain the following :

(a) Network security

(b) Static and channel allocation

(iii) Describe the (TCP/IP) with their component

and features.

(iv) Explain the following :

(a) Error detection and correction

(b) Forwarding and routing