

[46/A-21]

SEAT No. _____

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SARDAR PATEL UNIVERSITY

Master of Computer Applications (M.C.A.) III - Semester Examination

PS03CMCA25 Computer Networks - II

Tuesday, 27th November, 2018

Time: 2:00 pm to 5:00 pm

Max. Marks: 70

1. Select most appropriate option for each of the following questions : [8]

- (i) Which of the following standards is generally known as a fast Ethernet ?
(A) IEEE 802.3w (B) IEEE 802.3u (C) IEEE 803.2u (D) None of these
- (ii) Which of the following is not a dynamic routing algorithm?
(A) Link state (B) Hierarchical (C) Distance vector (D) Shortest path
- (iii) Cryptanalysis refers to
(A) the art of breaking ciphers (B) the art of devising ciphers
(C) the art of devising and breaking ciphers (D) None of these
- (iv) Maximum length of a cable segment supported by 1000Base-LX is
(A) 500 m (B) 1000 m (C) 5000 m (D) None of these
- (v) Packet discard policy is used at _____ layer.
(A) Physical (B) Datalink (C) Network (D) Transport
- (vi) Iridium project is an example of
(A) LEO satellites (B) MEO satellites (C) GEO satellites (D) None of these
- (vii) _____ fragmentation requires an overhead to repeatedly reassemble and then refragment a large packet passing through a series of small-packet networks.
(A) Transparent (B) Non-transparent (C) Both (D) None of these
- (viii) Full form of SMS is _____
a. Short Message Service b. Simple Message Service
c. Short Message Security d. Simple Message Security

2. Do as directed (Any Seven): [14]

- (i) What is **flooding** ? List any two applications of flooding.
- (ii) Name the **cabling scheme** for fast Ethernet that uses category 5 UTP. Specify the clock rate and encoding scheme used by it.
- (iii) Write any two **advantages** of using satellite communication over fiber optic communication.
- (iv) List names of popular **frequency bands** for satellite communication.
- (v) List the three requirements that should be satisfied by a **public-key algorithm**.
- (vi) Distinguish between **substitution cipher** and **transposition cipher**.
- (vii) What do you mean by Frequency reuse factor = 7?
- (viii) Write the full forms of **WLL & BSC**.
- (ix) Define: **Femtocell, Megacell**.

①

(P.T.O.)

3. [A] Write the salient features of **satellite communication**. What are geostationary satellites ? [6]

[B] Explain the **Gigabit Ethernet** cabling schemes. [6]

OR

[B] Explain **PSTN** in detail. [6]

4. [A] Distinguish between **virtual circuit and datagram subnets**. [6]

[B] Explain the **link state routing algorithm**. [6]

OR

[B] What is **congestion** ? List and discuss various **congestion prevention policies**. [6]

5. [A] What is **internetworking** ? How networks differ ? List some of the **issues** that arise in internetworking. [6]

[B] Explain the transparent and non-transparent **fragmentation** techniques. [6]

OR

[B] Write a short note on **firewalls**. [6]

6. [A] Explain the **GSM or CDMA mobile technology**. [6]

[B] Write a short note on **SMS**. [6]

OR

[B] Discuss **hidden station and exposed station problem** and their solutions. [6]

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