Registration no:

3rd Semester Regular Examination 2017-18
Computer Network and Security (CNS)
BRANCH: MBA
Time: 03 Hours
Max Marks: 100
Q. Code : B692

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

Q1 **Fill in the Blanks :** **(2 x 10)**

(a) Mail Services and directory services are available to network users through the _____layer.
(A) Application layer
(B) Data Link Layer
(C) Network Layer
(D) Presentation layer

(b) The OSI model has____layers.
(A) 5
(B) 7
(C) 6
(D) 3

(c) _____topology requires a central controller or hub.
(A) Mesh
(B) Star
(C) Bus
(D) Ring

(d) Given a transmission line with H as the highest frequency and L as the lowest frequency, the bandwidth of the line is_____
(A) H
(B) L
(C) H-L
(D) L-H

(e) Encryption and Decryption are functions of the _____layer.
(A) Application
(B) Session
(C) Presentation
(D) None of the above

(f) If user A wants to send an encrypted message to user B,the plaintext is encrypted with the public key of_____
(A) user A
(B) user B
(C) the network
(D) A or B

(g) Digital signature can provide_____for a network.
(A) authentication
(B) integrity
(C) non-repudiation
(D) all of the above

(h) _____ IP address has few hosts per network.
(A) Class A
(B) Class B
(C) Class C

(D) Class D

(i) The RSA algorithm is the basis of a _____encryption method.
(A) Public key
(B) Private key
(C) Conventional
(D) denominational

(j) An IPv6 address consists of____
(A) 4 bytes
(B) 6 bytes
(C) 12 bytes
(D) 16 bytes

Q2 **Answer the following Questions :** **(2x10)**

(a) How Simplex method is different from Half-duplex ?

(b) Mention any two properties of LAN.

(c) Name any two services provided by the application layer.

(d) A repeater is a regenerator, not an amplifier .Justify.

(e) Mention importance of firewall.

(f) What is the function of a Router?

(g) Define confidentiality.

(h) What is the relationship between plain text and cipher text?

(i) What action is taken in case of a collision detection in CSMA/CD protocol?

(j) Specify the number of links in case of n nodes connected in mesh topology.

Q3 **(a)** Discuss categories of Network. **(8)**
(b) Discuss applications of networking in business. **(7)**

Q4 **(a)** Discuss various types of Topologies. **(8)**
(b) Discuss collision detection and resolution approach in CSMA/CD protocol. **(7)**

Q5 **(a)** Discuss different networking and internetworking devices. **(8)**
(b) Discuss token passing mechanism in Token Ring. **(7)**

Q6 **(a)** Define Digital signature. Discuss properties of a digital signature. **(8)**
(b) Discuss Switching techniques briefly. **(7)**

Q7 **(a)** Discuss functions of physical layer of OSI model. **(8)**

(b) Discuss IP addressing. **(7)**

Q8 **Write Short note on any THREE :** **(5x3=15)**
(a) WWW
(b) Client Server Computing
(c) Bluetooth
(d) Transmission media
(e) Firewall