

Subject Code: R16MCA401

MCA - IV Semester Regular & Supple Examinations, November-2020
COMPUTER NETWORKS

Time: 3 hours

Max Marks: 60

Question Paper Consists of Part-A and Part-B.
Answering the question in Part-A is Compulsory & Four Questions should be answered from Part-B
All questions carry equal marks of 12.

PART-A

1. (a) Which type of services offered by Data link layer?
- (b) Mention any two Carrier sense multiple access protocols
- (c) What is meant by Congestion?
- (d) Define tunnelling?
- (e) Explain about Remote Procedure Call?
- (f) How many iteration is used in DES?

[2+2+2+2+2+2]

PART-B

4X 12 = 48

2. (a) Explain about ATM reference Model?
- (b) Discuss about One Bit Sliding Window Protocol.
3. (a) Explain about ALOHA.
- (b) Write short notes on Collision Free protocols.
4. (a) Discuss about Distance vector routing protocol with an example?
- (b) Mention the General principles of congestion control.
5. (a) Explain about Interior Gateway routing Protocol.
- (b) What is meant by Quality of Service? Explain about Packet Scheduling in Quality of Service?
6. (a) Distinguish between UDP and TCP.
- (b) Write short notes on flow control, buffering and crash recovery.
7. (a) Write about Domain Name System?
- (b) Explain about RSA algorithm with an example?



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MCA - IV Semester Regular & supple Examinations, November-2020
ADVANCED COMMUNICATION SKILLS

Time: 3 hours

Max Marks: 60

Question Paper Consists of Part-A and Part-B.

Answering the question in Part-A is Compulsory & Four Questions should be answered from Part-B
All questions carry equal marks of 12.

PART-A

1. (a) Write a short note on social media.
- (b) Name the non-verbal cues that effect the interview process.
- (c) What are the different types of communication?
- (d) What are the parts of a professional letter?
- (e) What documents do you carry for an interview?
- (f) What skills are assessed in a group discussion?

[2+2+2+2+2+2]

PART-B

4X 12 = 48

2. Write your self-introduction in about 100 to 150 words describing the following details
 - (i) academic record
 - (ii) personal strengths and weaknesses
 - (iii) short term and long term goals in life
3. What are the common barriers to effective communication?
4. Write a letter of application for the post of System Engineer in TCS, Bangalore, with reference to the advertisement published in The Hindu on 4th February 2019.
5. Enlist the Dos and Don'ts of a group discussion.
6. Write an essay on the impact of mobile on youth.
7. Write an email to your team leader informing the delay in your project, using the following prompt words: power backup, delivery, deadline, system support, weekend



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MCA - IV Semester Regular & Supple Examinations, November-2020
DATA WAREHOUSING AND MINING (ELECTIVE-I)

Time: 3 hours

Max Marks: 60

Question Paper Consists of Part-A and Part-B.

Answering the question in Part-A is Compulsory & Four Questions should be answered from Part-B
All questions carry equal marks of 12.

PART-A

1. (a) What are the origins of data mining?
- (b) What is the curse of dimensionality?
- (c) Write any 4 differences between operational database system and data warehouses.
- (d) Write any two measures for selecting the best split in decision tree classification?
- (e) What is support counting?
- (f) What is Agglomerative Hierarchical Clustering?

[2+2+2+2+2+2]

PART-B

4X 12 = 48

2. (a) What are data mining tasks? Explain.
- (b) What are various types of datasets? Explain.
3. (a) What are different data pre-processing techniques? Explain briefly.
- (b) Explain similarity between binary vectors?
4. (a) Explain different schemas for multidimensional databases with neat diagrams.
- (b) Discuss different OLAP operations in the multidimensional data model.
5. (a) Explain various methods to evaluate the performance of a classifier.
- (b) What is Naïve Bayes classification?
6. (a) Explain association mining algorithm with generating candidate item sets?
- (b) Explain how to handle continuous Attributes using discretization based methods.
7. (a) Explain K-means and different types of clusters.
- (b) What is DBSCAN? Explain its strength and weaknesses?



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MCA - IV Semester Regular & Supple Examinations, November-2020
INTERNET OF THINGS (ELECTIVE-II)

Time: 3 hours

Max Marks: 60

Question Paper Consists of Part-A and Part-B.

Answering the question in Part-A is Compulsory & Four Questions should be answered from Part-B
All questions carry equal marks of 12.

PART-A

1. (a) What is M2M communication?
- (b) What are the commercial applications of IOT?
- (c) What is the need of web connectivity for IOT?
- (d) What is TELNET?
- (e) What are the critical issues in data acquiring in IOT?
- (f) What is RFID?

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PART-B

4X 12 = 48

2. (a) Explain overview of Internet of Things. (8M)
- (b) Give design principles for connective devices. (4M)
3. (a) What are the limitations of OSI reference model for IOT applications. (4M)
- (b) Explain modified OSI stack for IOT/M2M systems. (8M)
4. (a) Explain design principles for web connectivity for connected devices. (6M)
- (b) Explain message communication protocols for connected devices. (6M)
5. Give brief note on the following: (12M)
 - (a) HTTP
 - (b) FTP
 - (c) HTTPS
6. (a) Explain about data acquiring and storing in IOT ? (6M)
- (b) Explain about various issues of integration of IOT platforms to infrastructure networks. (6M)
7. (a) Explain IOT cloud based services using Xively. (6M)
- (b) Explain various features of wireless sensor networks and significance of integration of wireless sensor networks to infrastructure networks. (6M)
