



Narasaraopeta Engineering College (Autonomous)

Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Subject Code: R16MCA401

MCA - IV Semester Regular and Supplementary Examinations, April-2019.

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) What is ATM?
- (b) What is the difference between pure ALOHA and slotted ALOHA?
- (c) What is flooding?
- (d) What is IP address? Write different classes of IP Address?
- (e) What is the use of checksum in UDP header?
- (f) What is MIME?

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

PART-B

4X 12 = 48

2. (a) Explain different types of transmission media used in networking?
- (b) What is the need for error detection? Explain methods used for error detection and error correction?
3. (a) Explain in detail the working of CSMA?
- (b) What are common Ethernet implementations? Explain them?
4. (a) Describe the distance vector routing algorithm?
- (b) List the various congestion control mechanisms. Explain anyone in detail.
5. (a) Explain in detail about the OSPF protocol with its pros and cons?
- (b) Enumerate in detail about the route optimization in mobile IP?
6. (a) How connection is established and terminated in TCP using three way handshaking mechanism? Describe in detail?
- (b) Write short notes on UDP?
7. (a) Describe how SMTP protocol is used in E-mail applications?
- (b) Explain in brief the DES algorithm?



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Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Subject Code: R16MCA402

MCA - IV Semester Regular and Supplementary Examinations, April-2019.

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 the importance of facial expressions and gestures in communication.
- (b) What are the different components of a resume?
- (c) Write some dos and don'ts of an E-mail writing?
- (d) Why has GD become a part of a selection process?
- (e) Mention various parts in a professional letter ?
- (f) What are the objectives of conducting interviews?

(2+2+2+2+2+2)

PART-B

2. Why is body language important? Give examples to the following e functions of non-verbal communication in both professional and day to day life ? 1x12=12
 - a) Reinforcement
 - b) Substitution
 - c) Contradiction
 - d) Accentuation
 - e) Regulation
3. a) What is the importance of mentioning your project work in a resume? Write your project work details by using the following. 2x6=12
 - i. Title of the project:
 - ii. Size of the project:
 - iii. Your role:
 - iv. Duration of the project:
 - v. Industry:
 - vi. Brief description: Five sentences.
- b) Write a cover letter for the post of senior software engineer in TCS.

4. Imagine yourself to be the instructor of a course in which ten students registered. Using the following key words, draft an email to be sent to all ten students who have registered.

1x12=12

- i. Selection of topic of their choice
- ii. Planning
- iii. Preparation
- iv. Professional presentation for 10 minute's duration.

5. Write an essay on effect of screen culture on youth.

1x12=12

6. List out the tips for handling a GD successfully.

7. Why is interview important in selection process? Give tips to face the following interview types.

1x12=12

- i. Stress interviews
- ii. Behavioural interviews
- iii. Structured interviews
- iv. Telephonic interview



Subject Code: R16MCA403

MCA - IV Semester Regular and Supplementary Examinations, April-2019.
DATAWAREHOUSING 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 general characteristics of data sets.
- (b) What is aggregation.
- (c) What are the steps for designing and construction of data ware houses.
- (d) What are the characteristics of SVM.
- (e) Explain candidate generation and pruning.
- (f) What are the strengths and weakness of K-Means algorithm.

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

PART-B

4X 12 = 48

2. (a) What is data mining? Explain different types of data?
- (b) What are the measurement and data collection issues related to data quality.
3. (a) Why should data should be pre-processed ? Explain the steps involved in data transformation?
- (b) What is sampling? Explain different types of sampling approaches?
4. (a) Explain the following concepts using an example: i) Snowflake schema ii) Fact Constellation schema.
- (b) Write a short on: i) ROLAP ii) MOLAP
5. (a) Explain how classification is done by decision tree induction?
- (b) What are Bayesian classifiers? Explain Baye's theorem for classification?
6. (a) Define Apriori principle. Explain frequent item set generation algorithm.
- (b) What is FP-Growth algorithm? Explain the construction of an FP-tree?
7. (a) Explain K-Means clustering method.
- (b) Write a short note on DBSCAN.



Subject Code: R16MCA407

MCA - IV Semester Regular and Supplementary Examinations, April-2019.
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 is HTTP ?
- c) What are the uses of Telnet?
- d) What is OSI reference model?
- e) What is cloud computing?
- f) What are the advantages of Data collection?

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

PART-B

4X 12 = 48

2. a) What are the advantages of IOT ?
b) Explain overview of IOT along with its design principles.
3. a) Explain modified OSI stack for IOT/M2M systems?
b) Discuss business models for IOTs.
4. a) Discuss design principles for web connectivity for connected devices.
b) Explain message communication protocols for connected devices.
5. a) Explain the use of HTTP protocol in developing web applications in particular for IOT applications
b) What are the uses of Telnet protocol in IOT environment ?
6. a) Explain data acquiring and storage concepts in IOT/M2M systems.
b) Explain IOT based enterprise systems.
7. a) Discuss IOT cloud based services using Xively platform.
b) Explain the significance of wireless sensor networks in building IOT systems.
