MASTER OF COMPUTER APPLICATIONS

MCA - III SEMESTER

Internal Assignment Questions(Theory)

2023

PROF. G. RAM REDDY CENTRE FOR DISTANCE EDUCATION

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(Recognised by the Distance Education Bureau, UGC, New Delhi.)

OSMANIA UNIVERSITY, HYDERABAD – 500 007 Telangana State INDIA

Dear Students,

All the students of **Master of Computer Application(MCA) I - Semester** has to write 2 Assignments for each paper and submit **Assignment** for each paper compulsorily. Each assignment carries **15 marks.** University Examinations will be held for **70 marks**. The concerned faculty evaluates these assignment scripts. The marks awarded to you will be forwarded to the Controller of Examination, OU for inclusion in the University Examination marks. If you fail to submit Internal Assignments before the stipulated date, the internal marks will not be added to University examination marks under any circumstances. **The assignment marks will not be accepted after the stipulated date.**

You are required to **pay Rs.500/- fee** towards Internal Assignment marks through online http://oucde.net and **submit the payment receipt along with assignment** at the concerned counter **on or before Last date of Exam Fee Date** and obtain proper submission receipt.

ASSIGNMENT WITHOUT THE PAID RECEIPT WILL NOT BE ACCEPTED

Assignments on Printed / Photocopy / Typed papers / written with black pen will not be accepted and will not be valued at any cost. Only hand written Assignments on A/4 size paper (one side only) will be accepted and valued.
Methodology for writing the Assignments:

1. First read the subject matter in the course material that is supplied to you.
2. If possible read the subject matter in the books suggested for further reading.
3. You are welcome to use the PGRRCDE Library on all working days including Sunday for collecting information on the topic of your assignments.
   (10.30 am to 5.00 pm).
4. Give a final reading to the answer you have written and see whether you can delete unimportant or repetitive words.
5. The cover page of the each theory assignments must have information as given in FORMAT below.

FORMAT

a. NAME OF THE COURSE :

b. NAME OF THE STUDENT :

c. ENROLLMENT NUMBER :

d. NAME OF THE PAPER :

e. DATE OF SUBMISSION : _____

6. Write the above said details clearly on every assignment paper, otherwise your paper will not be valued.

7. Tag all the assignments paper-wise and submit.

8. Submit the assignments on or before **Last date of Exam Fee Date** at the concerned counter at PGRRCDE, OU on any working day and obtain receipt.

DIRECTOR

SOFTWARE ENGINEERING
ASSIGNMENT – I

Paper – 301   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
1.   a. Explain software Development Process Models.   [5]
      b. Illustrate Project Management Process.

2.   a. Describe Software Requirement Specification?   [5]
      b. What is the role of Software Architecture . Explain it.

3.   Discuss Project schedule and staffing in detail.   [5]

SOFTWARE ENGINEERING
ASSIGNMENT – II

Paper – 301   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
1.   Differentiate Function oriented Design and Object Oriented Design.   [5]

2.   a. Explain programming principles and guidelines.   [5]
      b. Distinguish Black Box Testing and White box Testing.

3.   a. Explain Software Re-engineering and Reverse Engineering   [5]
      b. Describe CMMI.

Name of the Faculty : **K KEERTHI**

College : METHODIST COLLEGE OF ENGINEERING AND TECHNOLOGY

COMPUTER NETWORKS
ASSIGNMENT – I

Paper – 302   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
   1.   Write about OSI and TCP/IP reference Model
   2.   Explain Elementary Socket System Calls
   3.   Explain Advanced Socket System Calls

COMPUTER NETWORKS
ASSIGNMENT – II

Paper – 302   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

   1.   Write about pure and Slotted Aloha
   2.   Distinguish between guided and unguided medium
   3.   Explain in detail about Distance Vector Routing and Link State Routing Algorithms

Name of the Faculty: **Dr. K.V.S. Sudhakar**

R.G.Kedia College

DATA SCIENCE
ASSIGNMENT–I

Paper – 303   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. Load mtcars dataset and apply summary(), str(), head(), view(), edit()(Unit – I)
2. Describe the methods for reading data of various types (Unit – I)
3.   Discuss the descriptive statistics for (Unit – II)

DATA SCIENCE
ASSIGNMENT–II

Paper – 303   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. Explain logistic regression, its uses and its function (Unit – III)
2. Describe basic decision tree algorithm (Unit – IV)
3. Describe K-Means algorithm (Unit – V)

Name of the Faculty: **Dr Humera Shazia**

Dept: Computer Science

WEB PROGRAMMING
ASSIGNMENT – I

Paper – 304   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. How do you create a basic HTML form and include various input elements?   [5]
2. How do you link CSS style sheets to HTML documents, and what are the benefits of using external style sheets?   [5]
3. Explain the concept of event handling in DHTML. How are events triggered, and how do you assign event handlers to respond to these events?   [5]

WEB PROGRAMMING
ASSIGNMENT – II

Paper – 304   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. What are control statements in JavaScript, and how do they help in controlling the flow of a program?   [5]
2. Write about declaration of functions? What are arrays in VBScript, and how can you create, initialize, and access elements in an array?   [5]
3. What is CGI (Common Gateway Interface) in the context of web development, and how does it facilitate interaction between a web server and scripts?   [5]

Name of the Faculty : **B Dhanalakshmi**

College : Auroras PG College

NATURAL LANGUAGE PROCESSING
ASSIGNMENT – I

Paper – 322   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. a) What is meant by conditional Probability and independence.   [5]
   b) Explain Baye's Theorem in detail.
2. a) Write an examples for building n-gram models.   [5]
   b) Explain Held out estimation and Cross-Validation.
3. Differentiate supervised and unsupervised learning models.   [5]

NATURAL LANGUAGE PROCESSING
ASSIGNMENT – II

Paper – 322   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. Describe Bayesian Classification with an example. [5]
2. a) Illustrate Hidden Markov Models. [5]
   b)   Discuss PoS Tagging.
3. a)   What is meant by Clustering. Explain cluster analysis with its types. [5]
   b)   How does IRS play a role in NLP.

Name of the Faculty : **Dr. P. NARAYANA**
College : Stanley College Of Engineering And Technology For Women

INFORMATION SECURITY
ASSIGNMENT – I

Paper – 311   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
1 a)   what are the Critical characteristics of information? Describe NSTISSC security model
   b)   List the Threats and attacks? Brief each threat
2 a)   Explain the Relevant U.S laws and its Amendments
   b)   Discuss the Risks and risk control strategies
3 a)   what are the security policy and how it will applied in practices and what are the standards
   b)   Explain VNPs and physical design

INFORMATION SECURITY
ASSIGNMENT II

Paper – 311   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
1 a)   what are the access control and other security tools explain
   b)   Elaborate Cipher methods
2 a)   What are the non-technical aspects of implementations explain
   b)   What is the security management models explain?
3 a)   State security certification and accreditation
   b)   Analyze Firewalls and security education

Name of the Faculty : **Dr. B.Sujatha**
Dept. of CSE, UCE, OU

INTERNET OF THINGS
ASSIGNMENT – I

Paper – 312   Total Marks: 15

Answer the following short questions (each question **Five** marks)   3 x **5 = 15**
1. Define the Internet of Things (IoT) in simple terms.
2. What are the key components of an IoT system?
3. How does the IP protocol suite facilitate communication in the IoT ecosystem?

INTERNET OF THINGS
ASSIGNMENT – II

Paper – 312   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**
1.   What are the basic data types available in Embedded C, and how are they useful in IoT applications?
2.   What is Arduino, and what makes it an attractive platform for hardware development?
3.   What are the advantages of using Hadoop over traditional databases for big data analytics?

Name of the Faculty : **Dr. Rakesh**

NETWORK SECURITY
ASSIGNMENT – I

Paper – 321   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. (I) Define Network Security. Write about various types of Attacks and Services

     (ii) Write about Man-in-the-middle attack

2. Write about (i) DES   (ii) Key Distribution   (iii) AES

3. Write about (i) RSA   (ii) Diffie-Helman Exchange

NETWORK SECURITY
ASSIGNMENT – II

Paper – 321   Total Marks: 15

Answer the following short questions (each question **Five** marks)   **3 x 5 = 15**

1. Write about
     (i) SHA5   (ii) Message Authentication code
2. Write about
     (i) Digital Certification   (ii) Pop Key Interface
     (ii) Zero Knowledge Protocol and its use in smart cards
3. Write about
     (i) Kerberos   (ii) IPSec   (iii) Secure Electronic Transaction