Code No.: 70517 **MR17**

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **COMPUTER NETWORKS**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**

1. Explain ISO/OSI reference with neat diagram.

OR

2. Compare and contrast OSI reference model with TCP/IP.
3. Write short notes on:

   a) Go back NARQ b) Selective repeat ARQ

OR

4. Explain HDLC Protocol and Point to Point Protocol at data Link Layer.
5. a) Explain the responsibilities and design issues of Network Layer.

   b) Explain the process of Tunneling.

OR

6. Explain the four steps involved in Link State Routing.
7. Explain Qos in Switched networks.

OR

8. Discuss the various reasons for congestion. Differentiate between open loop and closed loop congestion control.
9. Explain www and its documents in detail.

OR

10. What is HTTP protocol? With an example explain how a request initiated by a HTTP client is served by a HTTP server.

Code No.: 70518

MR17

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **SOFTWARE ENGINEERING & MODELING**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**

1. Consider the system called Indian Railway reservation system which contains two functionalities called online ticket reservation, Counter ticket booking. You need to identify the below functions with respect to software process.
   a) Best suitable process model for online booking and justify your answer.
   b) Identify the various function of USER/ ADMIN in ticket booking.

OR

2. Explain about evaluation of software engineering methodologies.

3. What are Functional Requirements? Explain Software requirement Documents with an example.

OR

4. Write the Software Requirement Specification for Airline reservation system and identify the below system requirements.
   (i) Purpose of the System (ii) Target Audience (iii) Scope of the System
   (iv) Software Requirement (v)Identify the list of modules with description.

5. What are the design principles? Explain in detail.

OR

6. Discuss in brief about structured design methodology.

7. What are the benefits of involving users in release testing at an early stage in the testing process? Are there disadvantages in user involvement?

OR

8. Explain various structural testing techniques with suitable examples?

9. A Software has to be developed for automating the manual Railway Reservation System and consider the following functions like ticker reservation, cancellation, view tickets and Draw the Use Case Diagram and activity Diagram for the below scenarios.

OR

10. a) Explain the common uses of component diagram?
    b) Contrast Interface with Abstract class.

Code No.: **70519** **MR17**

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **LINUX PROGRAMMING**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12M=60 M**

1. a) Explain BRE(Basic Regular expression) character (or) metacharacter subset used for constructing regular expression in Linux/unix.
   b)Write a command for the following:
   i) Use sed to delete all blank lines from a file named CSE.txt
   ii) Use sed to replace all occurrences of the word UNIX with LINUX in a file named

OR

2. a) Write an awk script to count number of lines in a file that does not contain vowels.
   b) Write a sed script to print all lines of a file that is passed as command line argument by changing the string Hyd with Hyderabad.
3. Write a shell script for the following:
   (i) for display only the lines which are containing the word "unix".
   (ii) for display only duplicate lines in a file.
   (iii) for display only 3 and 6 fields in a file.
   (iv) for display starting two lines in a file.
   (v) To check whether "Mr. Malla Reddy, founder of your college " was logged in or not.

OR

4. a) Explain about Vi editor and modes of Vi editor with examples.
   b) Write a shell script to count the number of lines in a text file and type of the files.
5. a) What are the standard I/O's in C and explain them with syntax.
   b) Explain about file descriptors with relevant examples

OR

6. a) Write about the following Process API. a) fork b) _exit c) wait d) exec e) pipe
   b) How kernel supports for processes.
7. a) Explain about message read and message queue in detail.
   b) Compare the IPC functionality provided by message queues with named pipes.

OR

8. a) State the differences between reliable and unreliable signals and signal generation and handling.
   b) Explain the following signal API's.
9. Make a comparison of various IPC mechanisms. i) Semaphore ii) Shared memory

OR

10. a) Write about kernel for shared memory.
    b) Write about shared memory API's.

MR17

Code No.: 70M04

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **PROFESSIONAL ETHICS**

Branch: COMMON TO EEE, ECE, CSE, IT

Time: 3 hours **Max. Marks: 60**

Answer ALL questions **5x12 = 60M**
All Questions carries equal marks

1. What is 'Ethical Vision'? Why we need to practice engineering ethically?

(OR)

2. Write 'Theories of Right Action' and explain how these are useful.

3. What is an Inquiry? Explain different types of Inquiry.

(OR)

4. "Personal and Professional ethics should go hand- in- hand". Substantiate the statement.

5. What kind responsibilities engineers should fulfil to be ethical?

(OR)

6. What is confidentiality? What type information should be kept confidential?

7. Explain 'Risk-Benefit Analysis' with suitable examples.

(OR)

8. What are the lessons we could learn from 'Chernobyl Nuclear Disaster.

9. Write short notes on:

a) Environmental Ethics. **b)** Computer Ethics.

(OR)

10. "There is always a scope for engineers in becoming expert witnesses and advisers". Support the statement.

MR17

Code No.: 70520

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: Compiler Design

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions **5x12 = 60M**
All Questions carries equal marks

1. (a) Describe the various phases of compiler and trace it with the program segment (position :=initial +rate*60).

   (b) Conversion of regular expression (a/b)*abb to NFA.

(OR)

2. (a) Describe the components of Lex.

   (b) Analyze the output of each phase of compilation for the input :

   a = (b + c) * (b + c) * 2

3. Construct a predictive parsing table for the grammer

   S -> (L) | a

   L ->L, S | S

   And show whether the following string will be accepted or not. (a,(a,(a,a)))

(OR)

4. Construct LALR parsing table for the following grammer.

   S → AA

   A → aA

   A → b

5. Construct a syntax directed definition for constructing a syntax tree for assignments statements.

   S -> id := E

   E -> E1 + E2

   E -> E1 * E2

   E -> -E1

   E -> (E1)

   E -> id

. **(OR)**

6. (a) Comparison with tabulate between heap, stack and static allocation.

(b) Explain the Symbol table details in detail.

7. Construct the DAG for the following basic block.

1. t1 :=4*i
2. t2 :=a[t1]
3. t3 :=4*i
4. t4 :=b[t3]
5. t5 :=t2*t4
6. t6 :=prod+t5
7. prod :=t6
8. t7 :=i+1
9. i :=t7
10. if i<=20 goto(1)

(OR)

8. Illustrate the concepts of dataflow analysis in detail.

9. Demonstrate the various concepts about machine dependent code optimization.

(OR)

10. Analyze the algorithms for generic code generation in detail.

MR17

Code No.: 7B136

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: DIGITAL MARKETING

Branch: **CSE & IT**

Time: 3 hours **Max. Marks: 60**

5x12 = 60M

Answer ALL questions
All Questions carries equal marks

1. What is Digital Marketing and does it differ from Traditional Marketing?

(OR)

2. "Creating and effectively implementing a Digital Marketing Strategy in the Digital Marketing era is a herculean task." Elaborate.
3. Define Search Engine Optimization and explain Search Engine Optimization types.

(OR)

4. Explain Search Engine Optimization life cycle and the differences between organic and inorganic Search Engine Optimization.
5. Discuss about Google AdWords Structure and writing good Ads in Google AdWords.

(OR)

6. "Google Analytics is a reporting and analysis tool." Examine.
7. Explain the types of email marketing and email marketing tools.

(OR)

8. Elaborate how to track email marketing success and generate the leads for business using email marketing.
9. Compare and contrast between inbound marketing and content marketing.

(OR)

10. Assume that You Tube channel marketing is the leading marketing strategy and examine its merits and demerits.

Code No.: 70531

MR17

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **Principles of Distributed Database Systems**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**

All Questions carries equal marks

1. Compare and contrast between distributed database and centralized database. Explain Distributed data processing.

(OR)

2. Discuss various distributed design issues arise in building distributed DBMS.
3. List the objectives of query processing. Discuss distributed query optimization.

(OR)

4. Explain query decomposition and data localization layer for distributed query processing system.
5. Compare distributed deadlock prevention to distributed deadlock avoidance. Explain one scheme of distributed deadlock detection and recovery.

(OR)

6. Describe Two Phase Locking Protocol and Discuss Centralized Two phase locking protocol in brief.
7. Discuss the problem that can occur in a distributed system due to the failure of link and partitioning of the network. What are the ways by which recovery can take place?

(OR)

8. Explain load balancing in parallel database systems.
9. List and explain various Distributed object Database management systems.

(OR)

10. Discuss object distributed design and architectural issues in object DBMS.

Code No.: 70532

MR17

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **Distributed Computing**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**
All Questions carries equal marks

1. a) Explain about architectural model.
b) Explain the various challenges of distributed systems.

(OR)

2. a) Explain about the internet protocols. [8 Marks]
b) What are the networking issues for distributed System? [4 Marks]

3. a) Explain the Communication between distributed objects.
b) Describe java RMI in detail.

(OR)

4. a) Explain the TCP stream Communication and UDP datagram Communication. [8 Marks]
b) Explain the inter process communication. [4 Marks]

5. a) Discuss about process and threads in distributed systems.
b) Discuss about the file service Architecture.

(OR)

6. a) Explain about the Andrew file system.
b) Describe Operating system architecture.

7. a) Explain in detail about Name services.
b) Explain the case study of X.500 directory services.

(OR)

8. a) Write the short notes on Distributed mutual exclusion and elections.
b) Explain about the Events and process states.

9. a) Explain optimistic concurrency control.
b) Explain in detail about comparison of methods of concurrency control.

(OR)

10. Describe in detail about flat and nested transaction with neat diagram.

Code No.: 70615

MR17

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **Software Testing Methodologies**

Branch: **CSE**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**
All Questions carries equal marks

1. a) List out various dichotomies and explain.
   b) Explain in detail about defect classes.

(OR)

2. a) Classify the different kinds of bugs and explain.
   b) Differentiate black box testing and white box testing
3. a) Demonstrate Transaction flow structure and discuss transaction flow testing techniques.
   b) What are the applications of data flow testing?

(OR)

4. a) Discuss the strategies in data flow testing.
   b) Differentiate between control flow graph and transaction flow graph.
5. a) Discuss boundary value analysis.
   b) Explain in detail about configuration testing.

(OR)

6. a) Discuss in detail about domain testing.
   b) Write short notes on.
      i) Alpha testing
      ii) Beta testing
7. a) Define path product, path expression and path sum. Explain with an example.
   b) Explain KV charts for two variables and three variables

(OR)

8. a) Discuss regular expressions and flow anomaly detection.
   b) Explain about Cause-effect graph based testing and Decision table based testing.
9. a) Explain in detail about Java testing tools.
   b) Discuss a node reduction algorithm in terms of matrix operations.

(OR)

10. a) Describe the taxonomy of testing tools.
    b) Discuss the applications of node reduction algorithm.

Code No.: 70610

MR17

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

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III B.TECH I SEMESTER REGULAR END EXAMINATIONS, NOVEMBER-2019

Subject: **WEB TECHNOLOGIES**

Branch: **CSE(Readmitted Students) & IT**

Time: 3 hours **Max. Marks: 60**

Answer ALL questions of the following **5x12Marks= 60Marks**

1. a) Write different types of cascading style sheets with suitable examples .
   b) Write a java script that scrolls a text message in the status bar of the browser window.

OR

2. Explain HTML text formatting tags with example.

3. a) Write various types of xml schema data types used.
   b) Model the processing of XML data using the following XML processors
      i. DOM ii.SAX

OR

4. Construct a simple bean code. Put it in a file named SimpleBean.java, in the directory of your choice.

5. a) Distinguish Generic Servlet and Http Servlet.
   b) Explain how Cookies are used for Session Tracking.

OR

6. Write a servlet program to illustrate parameter reading and parameter initializing.

7. Explain categories of JSP tags –Directives, Scripting elements and actions.

OR

8. Explain database connection using JDBC.

9. Explain about implicit JSP objects.

OR

10. Explain the dynamic content generation using JSP with an example.