



# **MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY** **(Autonomous Institution – UGC, Govt. of India)**

**Sponsored by CMR Educational Society**

(Affiliated to JNTU, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC – „A“ Grade - ISO 9001:2015 Certified) Maisammaguda, Dhulapally (Post Via Hakimpet), Secunderabad – 500100, Telangana State, India.  
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## **DEPARTMENT OF INFORMATION TECHNOLOGY** **IV B.TECH ISEMESTER QUESTION BANK2019-20**



## LIST OF SUBJECTS

<b>CODE</b>	<b>NAME OF THE SUBJECT</b>
<b>R15A0528</b>	<b>DESIGN PATTERNS</b>
<b>R15A0530</b>	<b>BIG-DATA ANALYTICS</b>
<b>R15A0533</b>	<b>COMPUTER FORENSICS</b>
<b>R15A0562</b>	<b>HUMAN COMPUTER INTERACTION</b>
<b>R15A0563</b>	<b>MOBILE APPLICATION DEVELOPMENT</b>
<b>R15A0570</b>	<b>APPLICATION PROGRAMMING</b>

**R15A0528**  
**DESIGN PATTERNS**

Code No: **R15A0528****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester Examinations, November 2019****Design Patterns**

(IT)

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1.a) Explain the Essential elements of Design Patterns? [2M]
- b) How to select a design pattern? [3M]
- c) How many objects is the Singleton responsible for creating? [2M]
- d) Explain the Partial Glyph class Hierarchy? [3M]
- e) What is the basic problem being solved by the Bridge pattern? [2M]
- f) What are the two variations of the Adapter pattern? [3M]
- g) What is the intent of mediator pattern? [2M]
- h) What are the consequences of Chain of Responsibility pattern? [3M]
- i) What is Template method pattern? [2M]
- j) What is the purpose of Visitor pattern? [3M]

**PART-B (50 MARKS)****SECTION-I**

- 2 a. How to Determine Object Granularity? [5M]
  - b. Explain the Formatting –algorithm in Document Structure? [5M]
- OR
- 3 a. Give the step-by-step approach to apply a design pattern effectively. [5M]
  - b. What is the basis for classifying design patterns? Categorize and tabulate the design patterns. [5M]

**SECTION-II**

- 4 a. Discuss about Lexi's user interface and its design problems. [5M]
  - b. The Singleton uses a special method to instantiate objects. What is special about this method? [5M]
- OR
- 5 a. What are the implementation issues of prototype design pattern? Discuss. [5M]
  - b. Can we use an abstract factory for supporting multiple window system in Lexi's design? Explain. [5M]

**SECTION-III**

- 6 a. Discuss in detail about the participants and consequences of Composite pattern. [5M]
- b. What is the intent and motivation of Façade pattern? Explain. [5M]

OR

- 7 a. When can be a Flyweight pattern effectively be applicable? Explain. [5M]  
b. What are the different language features that are exploited by proxy pattern? [5M]

**SECTION-IV**

- 8 a. Write about the implementation issues of memento pattern. [5M]  
b. Explain the motivation and applicability of observer pattern. [5M]

OR

- 9 a. What is Command Pattern? Describe in detail about structure, participants and collaborations of Command pattern. [10M]

**SECTION-V**

- 10 a. Discuss the implementation issues of Strategy behavioral pattern. [5M]  
b. Explain what to expect from design patterns. [5M]

OR

- 11 a. Discuss about the structure and participants of state design pattern. [5M]  
b. Write about Pattern community in brief. [5M]

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**IV B. Tech I Semester Examinations, November 2019****Design Patterns****(IT)**

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**PART-A (25 Marks)**

- 1.a) What is Gang of Four *GOF*? [2M]
- b) Explain design patterns in Smalltalk MVC. [3M]
- c) Draw the structure Factory Method. [2M]
- d) Explain about recursive composition. [3M]
- e) Write intent of Proxy pattern. [2M]
- f) Write motivation of Wrapper pattern. [3M]
- g) What are known uses of Iterator pattern? [2M]
- h) Write benefits and drawbacks of Mediator pattern. [3M]
- i) What is the intent of Strategy pattern? [2M]
- j) Describe patterns in software. [3M]

**PART-B (50 MARKS)****SECTION-I**

- 2 a. What are some common causes of redesign? Explain. [5M]
  - b. How to use a design pattern? Explain in detail.. [5M]
- OR

- 3 a. Discuss about toolkits and frameworks. [5M]
- b. Draw a diagram to describe design pattern relationships. [5M]

**SECTION-II**

- 4 a. Describe formatting in Lexi's design. [5M]
- b. What are consequences of Builder pattern? Explain Builder pattern implementation. [5M]

OR

- 5 a. Explain about encapsulating the analysis in Lexi's design. [5M]
- b. Write sample code of Prototype pattern. [5M]

**SECTION-III**

- 6 a. Explain the sample code of Flyweight pattern. [5M]
- b. Discuss about implementation issues of Decorator pattern. [5M]

OR

- 7 a. Write about motivation and consequences of Façade pattern. [5M]

b. Write sample code of Composite pattern. [5M]

**SECTION-IV**

8 a. Explain about Mediator pattern. [5M]

b. Explain about motivation of Mediator pattern. [5M]

OR

9 a. Briefly discuss about Memento pattern. [5M]

b. Describe implementation of Command pattern. [5M]

**SECTION-V**

10 a. Write some of the benefits and liabilities of the Visitor pattern. [5M]

b. Discuss about the pattern community. [5M]

OR

11 a. Discuss about the behavioral patterns. [5M]

b. Write about Template method pattern in brief. [5M]

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Code No: **R15A0528****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

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**IV B. Tech I Semester Examinations, November 2019****Design Patterns****(IT)**

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**PART-A (25 Marks)**

- 1.a) Describe about pattern name. [2M]
- b) What do you mean by consequences? [3M]
- c) Write about document structure. [2M]
- d) Explain briefly about “Monoglyph”. [3M]
- e) Describe the motivation for Bridge Pattern. [2M]
- f) What are all the Participants for Proxy Pattern? [3M]
- g) What are the Consequences of Chain of Responsibility Pattern. [2M]
- h) Write the Pattern name and Classification of Observer Pattern. [3M]
- i) What can we expect from a Design Pattern? [2M]
- j) Write about Applicability of State Pattern. [3M]

**PART-B (50 MARKS)****SECTION-I**

- 2 a. How to use design patterns? Explain in detail. [5M]
  - b Explain about selection of a design pattern. [5M]
- OR
- 3 a How a Design pattern solves the design problem? Illustrate with an example. [10M]

**SECTION-II**

- 4 a. Discuss the Motivation, Structure, Collaborations and Implementation of the following Patterns: [10M]
  - a) Abstract Factory b) Prototype.
- OR
- 5 Explain in detail about “supporting multiple window systems”. [10M]

**SECTION-III**

- 6 Discuss the Intent, Applicability, Sample code, and Known uses of the following Patterns: [10M]
- a)Adapter b) FlyweiOghRt.



OR

- 7 Discuss the pattern name, Applicability, Consequences and Related Patterns of the following Patterns [10M]  
a) Bridge b) Proxy

**SECTION-IV**

- 8 Explain in detail about Command pattern. [10M]

OR

- 9 Describe in detail about Iterator Pattern. [10M]

**SECTION-V**

- 10 Explain the Motivation, Participants, Structure and Implementation of following Patterns [10M]  
a) State b) Template Method.

OR

- 11 Discuss briefly about the following Patterns: [10M]  
a) Visitor b) Strategy.

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**PART-A (25 Marks)**

- 1.a) Describe the Subscribe/Notify protocol in MVC model. [2M]
- b) Explain the benefits of manipulating objects in terms of interface defined by abstract class? [3M]
- c) Explain the Toolkit with suitable examples? [2M]
- d) Explain the Recursive Composition with Object Structure?. [3M]
- e) Explain the Concept of Transparent Enclosure? [2M]
- f) Explain the Implementation of issues of Prototype Pattern? [3M]
- g) Explain the Intent and Participants in Bridge Pattern?. [2M]
- h) Explain Remote, Virtual, Protection proxy patterns? [3M]
- i) Explain the Collaborations of Command pattern? [2M]
- j) How We can change & extend grammar in Interpreter patterns? [3M]

**PART-B (50 MARKS)****SECTION-I**

- 2 a. Explain the Spelling Checking and Hyphenation in Document Structure. [5M]  
b Compare the Glyph and Mono Glyph. [5M]  
OR
- 3 a Explain the Catalog of Design Patterns?. [10M]

**SECTION-II**

- 4 a. Explain the Consequences of Abstract Factory. [10M]  
OR
- 5 b. Explain the Sample Code Of Singleton Pattern? [10M]

**SECTION-III**

- 6 a) Explain Robust iterator & Null iterator [5M]  
b) Explain the benefits & Drawbacks of Mediator? [5M]

OR

- 7 Explain the TCP connection in state with Suitable code? [10M]

**SECTION-IV**

8 Explain Policy pattern in Behavioral pattern? [10M]

OR

9 Explain Node Visitor in Abstract Syntax Tree? [10M]

**SECTION-V**

10 Explain the Implementation of Template Patterns in Strategy? [10M]

OR

11 Write short notes on the following.: [10M]

a) Pattern Community                      b) Life Cycle of Object Oriented Software.

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**R15A0530**  
**BIG-DATA ANALYTICS**

Code No: R15A0530

MODEL I

R15

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019-2020**

**Big-Data Analytics (Associate Analytics-2)**

**Information Technology**

Roll No									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1). a What is Data Management? [2M]
- b List out Enterprise Requirements. [3M]
- c What are the features of scala? [2M]
- d Define the term HDFS. [3M]
- e What is RDBMS? [2M]
- f How NoSQL is faster than SQL? [3M]
- g What is Machine Learning algorithm? [2M]
- h Discuss machine learning algorithm in the context of multiple analytical methodologies? [3M]
- i Why do we use Data Visualization? [2M]
- j How Data Visualization is used in getting draw insights out of visualization tool? [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 a. Compare various sources of data with suitable example? [5M]
- b. Describe the importance of data quality in data management? [5M]

OR

- 3 Explain in detail about Protect health & safety as your work [10M]

**SECTION-II**

- 4 Briefly explain about Spark and Scala [10M]

OR

- 5 a. Analyse knowledge management in Big Data Analytics? [5M]
- b. Compare compliances and reporting in Associate Analytics? [5M]

**SECTION-III**

- 6 a. Explain the characteristics of NoSQL databases. [5M]

b. Distinguish between SQL and NoSQL. [5M]

OR

7 Define and differentiate between outlier detection and elimination with two examples? [10M]

**SECTION-IV**

8 Discuss in detail about train model on 2/3 sample data using various statistical algorithms? [10M]

OR

9 a. Explain about support vector machine [5M]

b. Distinguish between machine learning and data mining. [5M]

**SECTION-V**

10 Demonstrate prepare the data for visualization with any two illustrations? [10M]

OR

11 Explain Data presentation architecture in detail. [10M]

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Code No: R15A0530

MODEL II

**R15**

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(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019-2020**

**Big-Data Analytics (Associate Analytics-2)**

**Information Technology**

Roll No										
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1). a What is Big Data? [2M]
- b Define data quality? Explain. [3M]
- c List out the main components of Hadoop [2M]
- d What is Spark? Write its features. [3M]
- e What are the weak points of relational data? [2M]

- f List out different types of NoSQL databases. [3M]
- g What is Supervised learning? [2M]
- h Define Hypothesis Testing? [3M]
- i What is the role of Tableau in Data Visualization? [2M]
- j Write short note on DPA? [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 Explain in detail for generating primary data. [10M]

OR

- 3 a. Explain about work place safety. [5M]
- b. Write short note on Randomized Block Design. [5M]

**SECTION-II**

- 4 What are main components of Hadoop? Illustrate. [10M]

OR

- 5 a. Explain the features of Hadoop. [5M]
- b. Explain in detail about Apache Spark [5M]

**SECTION-III**

- 6 Explain different types of NoSQL data stores. [10M]

OR

- 7 Explain about column oriented database. [10M]

**SECTION-IV**

- 8 Explain the KDD task in detail. [10M]

OR

- 9 a. What are practical uses of Machine Learning? [5M]
- b. Why is Machine Learning joined with Data Analytics? [5M]

**SECTION-V**

- 10 a. Explain Data visualization using Tablue. [5M]
- b. Explain Data Visualization using visualisation tools. [5M]

OR

- 11 What is Data presentation architecture (DPA)? Explain. [10M]

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Code No: R15A0530

MODEL III

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019-2020**

**Big-Data Analytics (Associate Analytics-2)**

**Information Technology**

<b>Roll No</b>									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1). a What did you understand about Big data Tools? [2M]
- b Write elements of data architecture. [3M]
- c Define Mapreduce? [2M]
- d What are the features of Impala? [3M]
- e Differentiate Structured and Unstructured data. [2M]
- f Write Needs of Big Data Analytics. [3M]
- g What is Reinforcement learning? [2M]
- h How Train Model differ from Test Model. [3M]
- i List different Data Visualization Tools. [2M]
- j Write down steps involved in Data Visualization in Tableau. [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 a. Explain the sources of secondary data. [5M]
- b. Explain GPS and signal data in detail. [5M]

OR

- 3 c. What is data quality? Explain. [5M]
- d. Write short note on Accidents & Emergencies [5M]

**SECTION-II**

- 4 Explain knowledge management process of any organization. [10M]



- OR
- 5      a. Distinguish between Scala and Impala. [5M]  
       b. What is data imputation? Explain. [5M]

**SECTION-III**

- 6      a. Compare SQL and NoSQL? [5M]  
       b. Explain about Key-value data store. [5M]

OR

- 7      Describe graph database with example. [10M]

**SECTION-IV**

- 8      a. Explain Train model using machine learning algorithms. [5M]  
       b. What are steps followed in Machine Learning Algorithm? Explain. [5M]

OR

- 9      Discuss in detail about train model on 1/3 sample data using various prediction algorithms? [10M]

**SECTION-V**

- 10     a. Explain the features of Tableau. [5M]  
       b. How will you visualise the information using Tableau? Explain. [5M]

OR

- 11     Describe in detail different Data Visualization Tools. [10M]

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**Code No: R15A0530**

**MODEL IV**

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019-2020**

**Big-Data Analytics (Associate Analytics-2)**

**(IT)**

<b>Roll No</b>									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1). a Analyze AWS in the context of data management? [2M]
- b Discuss the role of manage the data for analysis in data management? [3M]
- c What is the significance of Data ETL process in Big Data Tools? [2M]
- d Describe information in standard formats with respect to Big Data Tools? [3M]
- e How Outlier can be eliminated in Big Data Analytics? [2M]
- f What is the business requirement with respect to Big Data Analytics? [3M]
- g Interpret hypothesis testing in machine learning algorithms? [2M]
- h Discuss machine learning algorithm in the context of multiple analytical methodologies? [3M]
- i Summarise product implementation with respect to data visualization? [2M]
- j How Data Visualization is used in getting draw insights out of visualization tool? [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 a. Compare various sources of data with suitable example? [5M]
- b. Describe the importance of data quality in data management? [5M]

OR

- 3 a. What is design data architecture in data management? [5M]
- b. Demonstrate data pre-processing in data management? [5M]

**SECTION-II**

- 4 a. Discuss the significance Hadoop in Associate Analytics? [5M]
- b. Define and differentiate between impala and spark with respect to Big Data Tools? [5M]

OR

- 5 c. Analyse knowledge management in Big Data Analytics? [5M]
- d. Compare compliances and reporting in Associate Analytics? [5M]

**SECTION-III**

- 6 a. Formulate the methodology in understanding the nature of the data? [5M]
- b. Describe collate all the data sources to suffice business requirement? [5M]

OR

- 7 Define and differentiate between outlier detection and elimination with two examples? [10M]

**SECTION-IV**

- 8 Discuss in detail about train model on 2/3 sample data using various statistical algorithms? [10M]

OR

- 9 a. What is Machine learning [5M]
- b. What are the types of Machine learning. [5M]

**SECTION-V**

- 10 Demonstrate prepare the data for visualization with any two illustrations? [10M]

OR

- 11 Explain in detail about Tableau in data visualization? [10M]

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**R15A0533**  
**COMPUTER FORENSICS**

**Code No: R15A0533****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations, May 2019****Computer Forensics  
(Information Technology)****MODEL PAPER – 1**

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

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**PART-A (25 Marks)**

- 1) a) Explain the Steps taken by Computer Forensics Specialist [3M]
- b) Write three types of Computer Forensics Technologies. [2M]
- c) Write five rules of Evidences and Explain in Brief. [3M]
- d) Explain the Concept of Digital ID [2M]
- e) Write about how to secure a Network [3M]
- f) What are the three rules of forensic hash.? [2M]
- g) What the four places where mobile device information might be stored [2M]
- h) How many ways that we can isolate a mobile device from incoming signals [3M]
- i) What is a virtual machines [2M]
- j) What is a cluster and explain what is virtual cluster in brief [3M]

**PART – B (50 Marks)****SECTION - I**

- 2) Explain about “Employee Safeguard Program”. [10M]  
(OR)
- 3) What is computer forensics? Explain the use of computer forensics in law enforcement?

**SECTION - II**

- 4) Explain controlling contamination: The chain of custody [10M]  
(OR)
- 5) Explain the complete legal Aspects of Collecting and Preserving Computer Forensic Evidence

**SECTION - III**

- 6) Explain how to validate Forensic Data with an Example? [10M]  
(OR)

7) Give an overview of Network forensics?

[10M]

**SECTION - IV**

8) What is role of e-mail in forensic investigations?

[10M]

(OR)

9) Explain the SIM card and SIM file structure?

**SECTION - V**

10) Write short notes on MS-DOS start-up task system

[10M]

(OR)

11) Write short notes on:

- a) Windows Registry
- b) NTFS System Files.

Code No: R15A0533

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester Examinations, May 2019**

**Computer Forensics**  
**(Information Technology)**  
**MODEL PAPER – 2**

<b>Roll No</b>									
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**Time: 3 hours**

**Max. Marks: 75**

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Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1) a) What is a Computer Forensics ? [2M]
- b) Briefly Explain the Computer Forensics Services. [3M]
- c) What and Explain the Role of Back-up in Data Recovery? [2M]
- d) Explain the Importance of bit-stream image back-ups [3M]
- e) What is a Packet Sniffers [2M]
- f) Explain How to Examine the Honeynet Project [3M]
- g) Explain the Roles of Client and Server in Email [3M]
- h) Explain how to tracing an Email message [2M]
- i) Explain the features of NTFS [3M]
- j) Explain the Windows Registry Commands [2M]

**PART – B (50 Marks)**

**SECTION - I**

- 2) What are the benefits of professional forensics methodology? Explain. [10M]  
(OR)
- 3) Explain the following business computer forensics technology
  - i) creating trackable electronic documents
  - ii) Forensic services available

**SECTION - II**

- 4) What is a Evidence and Explain the Types of Evidence. [10M]  
(OR)
- 5) Explain the complete process of “Microsoft’s Authenticode –VeriSign” Digital IDs Process

### **SECTION – III**

- 6) How are standard procedures developed for network forensics? [10M]  
(OR)  
7) Explain the process of seizing of digital evidence at the scene?

### **SECTION – IV**

- 8) Explain the process of investigating E-mail crimes and violations? [10M]  
(OR)  
9) Explain computer forensics hardware tools?

### **SECTION - V**

- 10) Explain the NTFS Encrypting File System [10M]  
(OR)  
11) Write a Short Notes on  
a) Virtual machines.  
b) FAT disks

**Code No: R15A0533****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations, May 2019****Computer Forensics  
(Information Technology)  
MODEL PAPER – 3**

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1 a) Explain the Purpose of Computer Forensics ? [2M]
- b) Explain the benefits of Professional Forensics Methodology [3M]
- c) Briefly Explain types of Evidence. [2M]
- d) Write the Collection Steps of Evidence in Sequence [3M]
- e) Explain the Concept of Bit-Shifting [2M]
- f) Explain the Process of Steganography to Hide data [3M]
- g) Explain the types of Computer Forensics Tools [2M]
- h) List four subfunctions of reconstructing drives [3M]
- i) Explain the features of NTFS [3M]
- j) What is a virtual machines [2M]

**PART – B (50 Marks)****SECTION - I**

- 2) What are the benefits of professional forensics methodology? Explain. [10M]  
(OR)
- 3) Explain about Types of Military Forensic Technology

**SECTION - II**

- 4) How Authenticode works with VeriSign Digital IDs? [10M]  
(OR)
- 5) Explain the Role of Evidence in Computer Forensics and Explain special needs of evidential authentication?



### **SECTION - III**

- 6) What is live acquisition? How are they performed? [10M]  
(OR)  
7) How are standard procedures developed for network forensics? [10M]

### **SECTION - IV**

- 8) Explain the process of investigating E-mail crimes and violations? [10M]  
(OR)  
9) Explain any two computer forensics software tools?

### **SECTION - V**

- 10) Write short notes on MS-DOS start-up task system [10M]  
(OR)  
11) Write short notes on:  
a) NTFS System Files  
b) Virtual machines.

**Code No: R15A0533****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations, May 2019****Computer Forensics  
(Information Technology)  
MODEL PAPER – 4**

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1) a) What is the role of a computer in a crime. [3M]
- b) What are the problems of computer forensics evidence? [2M]
- c) What are artifacts? [3M]
- d) List out the steps for processing computer evidence. [2M]
- e) What is computer forensic validation? [3M]
- f) How to validate forensic data? [2M]
- g) What are the needs of computer forensic tools? [2M]
- h) Discuss about email servers. [3M]
- i) What is use of registers in windows? [2M]
- j) What do you mean by encrypting a disc? [3M]

**PART – B (50 Marks)****SECTION - I**

- 2) Explain briefly about
    - a. Role of backup in data recovery
    - b. Data recovery solution. [10M]
- (OR)
- 3) Explain about forensic services.

**SECTION - II**

- 4) What are the legal aspects of collection and preserving computer forensic evidence? [10M]
- (OR)
- 5) What are the practical considerations implementations for computer image verification and validation?

### **SECTION - III**

- 6) a. Explain about how to secure a computer incident or a crime scene.  
b. Write short notes on network forensic overview. [10M]  
(OR)  
7) Explain the process of collecting evidences in private sector incident scenes.

### **SECTION - IV**

- 8) a. What do you understand by mobile device forensics? Explain  
b. Explain about specialized email forensic tools. [10M]  
(OR)  
9) Explain about investigating email crimes and violations.

### **SECTION - IV**

- 10) Discuss about  
a. Virtual Machines  
b. MS-DOS startup tasks. [10M]  
(OR)  
11) Write short notes on  
a. Microsoft File Structures.  
b. Microsoft startup Tasks.

**R15A0562**  
**HUMAN COMPUTER INTERACTION**

Code No: R15A0562

R15

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester, Model Question Paper-1**

**Human Computer Interaction**

(IT)

Roll No									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1). a Explain the benefits of good interface design? [2M]
- b Explain the concept of Direct manipulation? [3M]
- c Explain any 5 important Human characteristics in Design. [2M]
- d Explain various guidelines for presenting information on screen. [3M]
- e What are the various functions of menu? [2M]
- f What are the guidelines for selecting the proper device-based controls? [3M]
- g Explain different kinds of icons. [2M]
- h Discuss the goals of website navigation. [3M]
- i Distinguish between QWERTY and ABCDE style. [2M]
- j What is speech digitization and generation? [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 a. Compare a 1970's screen, a 1980's screen, and a 1990's and beyond screen. [5M]
- b. Explain in details the benefits of Good Design. [5M]
- OR
- 3 a. Compare and contrast the graphical user interface and the web user interface. [5M]
- b. Discuss the characteristics of the Web User Interface. [5M]

**SECTION-II**

- 4 a. Discuss about the user's psychological characteristics in the design of a system. [5M]
- b. Explain about Human Interaction Speed. [5M]
- OR
- 5 a. Compare and contrast direct and indirect methods of requirements analysis. [5M]
- b. Explain various Design Standards or Style Guides. [5M]

**SECTION-III**

- 6 a. Explain about organizing and ordering of screen elements. [5M]
- b. Discuss the techniques user of visual emphasis of important elements on a screen. [5M]
- OR
- 7 a. Explain various qualities which provide visually pleasing composition with examples for each quality. [5M]
- b. Explain Technological consideration in interface design. [5M]

**SECTION-IV**

- |   |   |             |
|---|---|-------------|
| 8 | a. What are the various Components of a Window?   | <b>[5M]</b> |
|   | b. What are the guidelines for selecting the proper device-based control?               | <b>[5M]</b> |
|   | OR  |             |
| 9 | a. What are the guidelines for designing icons? What are the types of Machine learning? | <b>[5M]</b> |
|   | b. What are the various guidelines for presenting error messages on web?                | <b>[5M]</b> |

**SECTION-V**

- |    |  |             |
|----|--|-------------|
| 10 | a. Explain about the Features of user-interface building tools.          | <b>[5M]</b> |
|    | b. Explain the importance of keyboards, Function keys.                   | <b>[5M]</b> |
|    | OR   |             |
| 11 | a. What is Speech digitization and Generation?                           | <b>[5M]</b> |
|    | b. Compare and contrast the characteristics of various pointing devices. | <b>[5M]</b> |

\*\*\*\*\*

Code No: R15A0562

R15

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**  
(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester, Model Question Paper-2**

**Human Computer Interaction**

(IT)

Roll No									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1). a Explain the design structure of 1990s screen. [2M]
- b Discuss about the popularity of graphics. [3M]
- c Explain about human interaction speed. [3M]
- d What is meant by basic business functions? [3M]
- e Define good screen design. What are the problems with poor design? [2M]
- f Explain any 4 qualities which provide visually pleasing composition. [3M]
- g Explain any 5 characteristics of Device-Based Controls. [3M]
- h Discuss about different types of Messages. [2M]
- i What are Direct-Control pointing devices? [2M]
- j Discuss various Display Devices. [2M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 a. Discuss the history of screen design. [5M]
- b. Discuss the chronological history of GUI. [5M]

**OR**

- 3 a. Explain the concept of Direct Manipulation. [5M]
- b. Compare and contrast GUI versus Web page design. [5M]

- 4 a. Explain about Human Interaction Speed. [5M]
- b. Explain the user's mental model and system's conceptual model. [5M]

**OR**

- 5 a. Explain briefly about the important human characteristics in design of a system. [5M]
- b. Compare and contrast direct and indirect methods of requirements analysis. [5M]

- 6 What is a Screen? What is the purpose of a screen? [4M]
- Discuss the techniques user of visual emphasis of important elements on a screen. [6M]

**OR**

- 7 a. Explain various qualities which provides visually pleasing composition with examples [6M]

- for each quality.
- b. Discuss various Types of Statistical Graphics. **[4M]**
- 8 a. What are the guidelines for selecting the proper device-based control? Explain. **[6M]**  
b. What are the various Components of a Window? **[4M]**
- OR**
- 9 a. What is multimedia? Explain it briefly. **[5M]**  
b. Explain the procedure for choosing colors in screen design. **[5M]**
- 10 a. Explain the importance of Interface – Building Tools. **[5M]**  
b. Explain the importance of keyboards, Function keys. **[5M]**
- OR**
- 11 a. Explain about projectors, heads up displays helmet mounted displays. **[5M]**  
b. Explain pointing devices in detail. **[5M]**



Code No: **R15A0562****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester, Model Question Paper-3****Human Computer Interaction****(IT)**

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

**\*\*\*****PART-A (25 Marks)**

- 1). a What is User Interface? [2M]
- b What are the various problems with direct manipulation? [3M]
- c Explain any 5 important Human characteristics in Design. [2M]
- d Discuss about users knowledge and experience in the design of business system. [3M]
- e What is the role of screen navigation and flow in developing good screen design? [3M]
- f Explain three contents of menu. [2M]
- g What is icon? Explain different kinds of icons? [2M]
- h What are the guidelines for creating images? [2M]
- i What is speech digitization and generation? [3M]
- j Explain the features of QWERTY AND DVORAK LAYOUT. [3M]

**PART-B (50 MARKS)****SECTION-I**

- 2 a. Discuss the history of screen design. [6M]
- b. Discuss the impact of inefficient screen design. [4M]

**OR**

- 3 a. Discuss in detail the importance of the user interface for success of Software. [5M]
- b. Discuss about the data objects, container objects and device objects. [5M]

- 4 a. What is meant by basic business functions? Discuss in detail the process of determining basic business functions. [4M]
- b. Discuss about the users psychological characteristics in the design of a system. [6M]

**OR**

- 5 a. What is a Screen? What is the purpose of a screen? [4M]
- b. Discuss various Types of Statistical Graphics. [6M]
- a. What are the contents of Menus? Explain in detail. [6M]
- 6 b. Explain various window operations. [4M]

**OR**

- 7 a. What is an icon? What are the kinds of icons? Explain in detail. [6M]
- b. Explain various uses of Color. [4M]

- 8 Explain Screen based and Device based controls in detail. [10M]
- OR**
- 9 Explain Components like text, messages, Icons and colors [10M]
- 10 a. Explain about the Features of user-interface building tools. [5M]  
b. Explain the importance of Interface – Building Tools. [5M]
- OR**
- 11 a. What are the uses of video displays? Explain various video display devices in details. [5M]  
b. Compare and contrast the characteristics of various pointing devices. [5M]

Code No: **R15A0562****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester, Model Question Paper-4****Human Computer Interaction****(IT)**

<b>Roll No</b>									
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

**\*\*\*****PART-A (25 Marks)**

- 1). a What is the importance of Good design? **[2M]**
- b Discuss the characteristics of a Web Interface. **[3M]**
- c Explain the user's mental model and systems conceptual models. **[3M]**
- d Explain any 4 qualities which provide visually pleasing composition. **[2M]**
- e Discuss different types of menus. **[2M]**
- f Discuss about different types of Messages. **[3M]**
- g Explain about Grammars. **[2M]**
- h Discuss various Design tools for creating user interface. **[3M]**
- i What are the different features of user-interface-building tools? **[2M]**
- j What is speech digitization and generation? **[3M]**

**PART-B (50 MARKS)****SECTION-I**

- 2 a. Compare a 1970's screen, a 1980's screen, and a 1990's and beyond screen. **[6M]**
- b. Explain in details the benefits of Good Design. **[4M]**

**OR**

- 3 a. Compare the print page design and web page design. **[5M]**
- b. Compare and contrast GUI versus Web page design. **[5M]**

- 4 a. Discuss about the user's physical characteristics in the design of a system. **[4M]**
- b. Explain about Human Interaction Speed **[6M]**

**OR**

- 5 What is meant by basic business functions? Discuss in detail the process of determining basic business functions. **[10M]**

- 6 a. Explain the various guidelines for presenting information on screen. **[4M]**
- b. Discuss the techniques user of visual emphasis of important elements on a screen. **[6M]**

**OR**

- 7 a. Discuss the goals of website navigation. **[4M]**
- b. Explain the guidelines for displaying graphic components on screen **[6M]**

- 8 What are the guidelines for selecting the proper device-based control? Explain. [10M]
- OR**
- 9 a. Explain about Words, Text, Window. [5M]  
b. Explain the procedure for choosing colors in screen design. [5M]
- 10 Explain pointing devices in detail. [10M]
- OR**
- 11 Compare and contrast the characteristics of various pointing devices. [10M]

**R15A0563**

**MOBILE APPLICATION DEVELOPMENT**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations****Mobile Application Development****(INFORMATION TECHNOLOGY)**

<b>Roll No</b>										
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

**\*\*\*****PART-A (25 Marks)**

- 1.a) What is setup box? [2]
- b) Write about J2ME configuration. [3]
- c) What is JAR and JAD files? [2]
- d) List the layers of J2ME architecture. [3]
- e) Describe form class. [2]
- f) Create an interactive Gauge. [3]
- g) List out JDBC Driver types. [2]
- h) Write the steps to establish database connection in JDBC. [3]
- i) List out different protocols to perform communication. [2]
- j) Explain about Socket Connection. [3]

**PART-B (50 Marks)****SECTION-I**

2. a) Discuss about multi tier web services and write the role of J2ME in multi tier web service. [10]
  - b) Discuss about personal digital assistances. [5+5]
- OR
3. Describe mobile radio networks detail. [10]

**SECTION-II**

4. What is Midlet Suite and explain the life cycle of Midlet in detail. [10]
- OR
5. Develop Midlet application to create and manipulate an instance of String Item object. [10]

**SECTION-III**

6. Explain Item class in detail with an example application. [10]  
OR  
7. Develop J2ME application to draw an arc and paint on Canvas. [10]

**SECTION-IV**

8. Explain record listener interface in detail with an example program. [10]  
OR  
9. Write a Java program to insert and delete rows using result set. [10]

**SECTION-V**

10. a) Explain the procedure to establish HTTP Connection to communicate with server. [10]  
b) Write the code segment and JAD file to read the data from the web server. [5+5]  
OR  
11. Explain URL rewriting and HTTP session techniques in detail with an example. [10]

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations****Mobile Application Development****(INFORMATION TECHNOLOGY)**

<b>Roll No</b>										
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

**\*\*\*****PART-A (25 Marks)**

- 1.a) Explain about Cellular Digital Packet Data. [2]
- b) Discuss about Personal Digital Assistants. [3]
- c) Discuss about Event Handling. [2]
- d) Write a short note on MIDLet programming. [3]
- e) Mention about Screen Class. [2]
- f) Explain about Exception Handling. [3]
- g) How do you create and execute a SQL Query. [2]
- h) Explain the process of connecting to a Database. [3]
- i) What is a socket? [2]
- j) How do you create a HTTP connection? [3]

**PART-B (50 Marks)****SECTION-I**

- 2.a) Discuss about wireless technology.
- b) Explain microwave technology. [5+5]

**OR**

- 3.a) Explain the inside of J2ME.
- b) Compare and contrast between J2ME and J2SE. [5+5]

**SECTION-II**

4. Discuss about J2ME best practices. [10]

**OR**

- 5.a) How a MIDLet program works with Internet ? Explain.



b) Outline J2ME wireless Tool Kit, building and running a project using the Wireless Tool Kit. [5+5]

### **SECTION-III**

6.a) Illustrate throwing a MIDlet State Change exception with an example program.

b) Write a program to demonstrate alert Dialog box. [5+5]

OR

7.a) Discuss about detecting and processing key codes.

b) Discuss about detecting and processing pointer events. [5+5]

### **SECTION-IV**

8.a) Explain about transaction processing.

b) Explain about different types of JOIN's with suitable examples. [5+5]

OR

9.a) Explain Callable statement.

b) Discuss about scrollable result set with an example program. [5+5]

### **SECTION-V**

10.a) Write a program to read and write to a socket.

b) Explain communication management using HTTP commands. [5+5]

OR

11. How do you communicate with server using HTTP connection? Explain with suitable example program. [10]

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Examinations****Mobile Application Development****(INFORMATION TECHNOLOGY)**

<b>Roll No</b>										
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**Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

**\*\*\*****PART-A (25 Marks)**

- 1.a) What is setup box? [2]
- b) Discuss about Personal Digital Assistants. [3]
- c) What is JAR and JAD files? [2]
- d) Write a short note on MIDlet programming. [3]
- e) Describe form class. [2]
- f) Explain about Exception Handling. [3]
- g) List out JDBC Driver types. [2]
- h) Write the steps to establish database connection in JDBC. [3]
- i) List out different protocols to perform communication. [2]
- j) How do you create a HTTP connection? [3]

**PART-B (50 Marks)****SECTION-I**

2. a) Discuss about wireless technology.[10]
- b) Explain microwave technology. [5+5]

**OR**

3. Describe mobile radio networks detail. [10]

**SECTION-II**

4. State the J2ME applications [10]

**OR**

5. Develop Midlet application to create and manipulate an instance of String Item object. [10]

**SECTION-III**

6.a) Illustrate throwing a MIDLet State Change exception with an example program.

OR

b) Write a program to demonstrate alert Dialog box. [5+5]

OR

7. Develop J2ME application to draw an arc and paint on Canvas. [10]

**SECTION-IV**

8. Explain transaction processing in detail. [10]

OR

9. State and Explain Android activity lifecycle [10]

**SECTION-V**

10. Explain the procedure to connect to the database.[10]

OR

11. State the understanding of SQLite Database [10]

**R15A0570**  
**APPLICATION PROGRAMMING**

Code No: R17A0570

Model I

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019**

**Application Programming**

(IT)

Roll No									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1). a What is the .NET Framework? [2M]
- b Write about the string literal in C#. [3M]
- c What is implementation inheritance? [2M]
- d Define operator overloading. [3M]
- e List the advantages of stored procedure. [2M]
- f What is the use of data set in ADO.NET? [3M]
- g Define a web service? List few real-time web services. [2M]
- h What is ASP.NET? [3M]
- i What are the uses of assemblies? [2M]
- j Define CLR and list down its responsibilities. [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 Describe the architecture of .NET framework with neat diagram. [10M]

OR

- 3 a. Write a short note on mutable strings with example. [5M]
- b. Explain in detail the different types of expressions used in C#. [5M]

**SECTION-II**

- 4 a. What do you mean by delegates? State their use with an example. [5M]
- b. Describe the process of handing events through delegates. [5M]

OR

- 5 Describe the concepts of indexers with example it. [10M]

**SECTION-III**

- 6 What is dialog box? What are the different types of dialog Box? [10M]

OR

- 7 a. Brief the steps involved in development of SDI application. [5M]  
b. What are MDI forms? Explain how to create MDI Form with example. [5M]

**SECTION-IV**

- 8 Describe how to read and write the streamed XML in .NET? [10M]

OR

- 9 a. List the different object models associated with ASP.NET [5M]  
b. Describe the validator controls and their applications in ASP.NET [5M]

**SECTION-V**

- 10 Describe the .Net framework architecture with neat diagram. [10M]

OR

- 11 Describe some of the security concerns when calling unmanaged code. [10M]

\*\*\*\*\*

Code No: R17A0570

Model II

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019**

**Application Programming**

**(IT)**

<b>Roll No</b>									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

\*\*\*

**PART-A (25 Marks)**

- 1). a What are the steps to compile in NET? [2M]  
b Differentiate Const. and read only. [3M]  
c List the restrictions in Thread Pool. [2M]  
d Give the uses of sealed class. [3M]  
e Differentiate model and modeless Dialog. [2M]  
f What is SDI and MDI application? [3M]  
g Write down the different types of value mode that can hold session state in web.config. [2M]

- h Define XML. Give example. [3M]
- i State the two distinct ways of expressing version information of assemblies and compare each with the other. [2M]
- j List and compare the two predefined .Net remoting channels. [3M]

## **PART-B (50 MARKS)**

### **SECTION-I**

- 2 Describe the architecture of .NET framework with neat diagram. Describe the architecture of .NET framework with neat diagram. [10M]

OR

- 3 a. Explain the salient features of .NET framework. [5M]  
b. Explain the important characteristics of C# in detail. [5M]

### **SECTION-II**

- 4 Consider a student class with feet and inches as attributes which describes the height of the student. Write a C# program to overload the + operator and to find the average of N students. [10M]

OR

- 5 Explain constructors and its types and how to add a constructor to the building class. [10M]

### **SECTION-III**

- 6 a. Explain in detail the process of creating menus in a windows-based application. [5M]  
b. Develop a window based application with at least 5 controls and event handling methods. [5M]

OR

- 7 Explain how to build the windows application forms. [10M]

### **SECTION-IV**

- 8 What are transactions? What are the ACID properties? Explain in detail for fund transferring with code. [10M]

OR

- 9 a. Explain how data sets are passed as parameter and return from a web service. Give an example code. [5M]  
b. Explain XML schema definition and validation with example. [5M]

### **SECTION-V**

- 10 a. Explain in detail about marshaling. [5M]  
b. Explain about types of remoting. [5M]

OR

- 11 Explain the encryption technologies applied in .NET with example. [10M]

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Code No: R17A0570

Model III

**R15**

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

**IV B. Tech I Semester External Examinations 2019**

**Application Programming**

(IT)

Roll No									
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**Time: 3 hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B

Part A is compulsory which carries 25 marks and Answer all questions.

Part B Consists of 5 SECTIONS (One SECTION for each UNIT). Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 10 marks.

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**PART-A (25 Marks)**

- 1). a Why C# is called type safe language? [2M]
- b Can an array hold objects of varying types? Explain how. [3M]
- c Give an example for virtual method and polymorphism. [2M]
- d What support is provided by c# for events? [3M]
- e What are intrinsic attributes? [2M]
- f Differentiate model and modeless Dialog. [3M]
- g State the phases of a transaction. [2M]
- h Give notes on web config. [3M]
- i What are private and shared assemblies? [2M]
- j Describe metadata and specify the method through which Meta data are inspected. [3M]

**PART-B (50 MARKS)**

**SECTION-I**

- 2 Develop a program to generate the first 10 terms of the Fibonacci series. [10M]

OR

- 3 Create a C# code that reads a list of names in random order using an array and displays them in alphabetical order. (15) [10M]

**SECTION-II**

- 4 a. What are abstract classes and how to implement their interfaces? [5M]  
b. Brief note on operations of thread with examples. [5M]

OR

- 5 How the Exception are handled in C#. [10M]

**SECTION-III**

- 6 Describe in short the following controls. Develop an application with each control. [10M]  
i) Checkbox(4)



- ii) Radio button(4)
- iii) Group box (5)

OR

- 7 a. What are the steps to link SQL server with ADO.NET [5M]
- b. What are the steps to be followed to create the complete data table. [5M]

**SECTION-IV**

- 8 Differentiate between client-side and server-side validations in Web pages. Explain in detail how this can be done. [10M]

OR

- 9 a. What is the difference between SQL notification and SQL invalidation? [5M]
- b. Explain with example that handles SQL notification and SQL invalidation. [5M]

**SECTION-V**

- 10 Explain in detail the aspects of providing security to .Net applications. [10M]

OR

- 11 a. Write a web service using SOAP to convert Celsius to Fahrenheit. [5M]
- b. Develop an application which requires simple and compound marshalling, Explain how these are performed . [5M]

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