

QUESTION BANK

**B.TECH IV YEAR – I SEM (R15)
(2019-20)**



**DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING**

**MALLA REDDY COLLEGE OF ENGINEERING &
TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

Recognized under 2(f) and 12 (B) of UGC ACT 1956

(Affiliated to JNTUH, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC – 'A' Grade - ISO 9001:2015 Certified)
Maisammaguda, Dhulapally (Post Via. Hakimpet), Secunderabad – 500100, Telangana State, India

Code No: R15A0520

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Regular Examinations****Big Data Analytics****(CSE)****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) List the types of accidents. (2M)
- (b) Write the elements of data architecture. (3M)
- (c) List the stages of OODA Loop. (2M)
- (d) What are the standard reporting templates? (3M)
- (e) What is Map Reduce? (2M)
- (f) What is Key-value data store? (3M)
- (g) What are the types of machine learning? (2M)
- (h) How do you prepare the input data for an algorithm? (3M)
- (i) List Quick Visual Options in Tableau. (2M)
- (j) What is the role of workspace in Tableau? (3M)

PART – B**(50 Marks)****SECTION – I**

2. Explain in detail about Export Job Process. (10M)
- (OR)**
3. List the guide lines for identifying and reporting an accident or emergency in detail. (10 M)

SECTION – II

4. What is knowledge management? Explain about model based techniques. (10M)
- (OR)**
5. Explain about the Kepner-Tregoe Matrix Decision Model.(10M)

SECTION – III

6. List the Classification of No SQL Databases and explain about columns based database.(10M)
- (OR)**
7. Explain about Graph Databases and Descriptive Statistics. (10M)

SECTION – IV

8. Describe Train Model using Machine Learning Algorithm, Test model. (10M)
- (OR)**
9. Explain Knowledge Discovery in Databases task in detail. (10 M)

SECTION – V

10. Explain Data Visualization in Tableau. (10M)
- (OR)**
11. Draw insights out of any one Visualization Tool. (10 M)

Code No: R15A0520

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Regular Examinations****Big Data Analytics****(CSE)****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) List various sources of digital data. (2M)
- (b) Explain about data pre processing techniques. (3M)
- (c) List few Big data Tools. (2M)
- (d) What are the standard reporting templates? (3M)
- (e) What is SPARK? (2M)
- (f) What is Key-value data store? (3M)
- (g) What are the types of Big Data Analytics? (2M)
- (h) How do you prepare the input data for an algorithm? (3M)
- (i) List Quick Visual Options in Tableau. (2M)
- (j) What is the role of workspace in Tableau? (3M)

PART – B**(50 Marks)****SECTION – I**

2. Explain the process of exporting data to Cloud (AWS) (10M)

(OR)

3. List the guide lines for identifying and reporting an accident or emergency in detail. (10 M)

SECTION – II

4. Explain in detail about Data ETL process. (10M)

(OR)

5. Explain about standardized reporting and compliances.(10M)

SECTION – III

6. Explain in detail about descriptive analytics.(10M)

(OR)

7. Explain about Outlier detection and elimination (10M)

SECTION – IV

8. Describe Train Model using Machine Learning Algorithm, Test model. (10M)

(OR)

9. Explain Hypothesis Testing in detail. (10 M)

SECTION – V

10. Explain Data Visualization in Tableau. (10M)

(OR)

11. Draw insights out of any one Visualization Tool. (10 M)

Code No: R15A0520

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Regular Examinations****Big Data Analytics****(CSE)****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 characteristics of Big Data? (2M)
- (b) List few NOSQL databases. (3M)
- (c) What are daemons are used to store data in HDFS. (2M)
- (d) What are the standard reporting templates? (3M)
- (e) What is Impala? (2M)
- (f) What is Key-value data store? (3M)
- (g) What are the types of Big Data Analytics? (2M)
- (h) How do you prepare the input data for an algorithm? (3M)
- (i) List Quick Visual Options in Tableau. (2M)
- (j) What is the role of workspace in Tableau? (3M)

PART – B**(50 Marks)****SECTION – I**

2. Explain in detail about Data Quality. (10M)

(OR)

3. List the guide lines for identifying and reporting an accident or emergency in detail. (10 M)

SECTION – II

4. Explain in detail about Decision Models. (10M)

(OR)

5. Explain about standardized reporting and compliances.(10M)

SECTION – III

6. Describe various types of Big Data Analytics? Explain about Predictive Analytics(10M)

(OR)

7. Explain about Outlier detection and elimination (10M)

SECTION – IV

8. Describe Train Model using Machine Learning Algorithm, Test model. (10M)

(OR)

9. Explain Hypothesis Testing in detail. (10 M)

SECTION – V

10. Explain Data Visualization in Tableau. (10M)

(OR)

11. What are the steps involved in production Implementation. (10 M)

Code No: **R15A0531****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Supplementary Examinations, May 2019****Big-Data Analytics (Associative Analytics-2)****(CSE)**

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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 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 are 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 a. Analyse knowledge management in Big Data Analytics? [5M]
 - b. 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]

R13

Code No: 117JU

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2017

BIG DATA ANALYTICS

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

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

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

- 1.a) Is it desirable to build a system that helps users perform appropriate analysis? Explain. [2]
- b) Whether use of a centralized server for the MDW database is the best Practice and Caveat for Management Data Warehouse? Justify. [3]
- c) What is Apache Spark? Explain key features of Spark. [2]
- d) Define HDFS. Discuss the HDFS Architecture and HDFS Commands in brief. [3]
- e) Explain some of the applications of Big data. [2]
- f) What is impedance mismatch? What are the major difficulties faced by big data application developers? [3]
- g) What do you mean by hypothesis? Explain. [2]
- h) Discuss the criteria for evaluating case study. [3]
- i) What do you mean by data visualization? Explain. [2]
- j) Write names of some data visualization tools. Also, discuss properties of different tools. [3]

PART-B

(50 Marks)

2. What role should data quality and governance play in any organization? Also how are data quality and governance related? Explain. [10]

OR

3. What software requirements does user end data analysis impose upon a data management project? Explain with a suitable example. [10]

4. Write Map Reduce code for counting occurrences of specific words in the input text file(s). Also write the commands to compile and run the code. [10]

OR

5. What is Hbase? Discuss in detail the data model and Implementation aspect of Hbase. [10]

6. What are the benefits of Big Data? Discuss challenges under Big Data. How Big Data Analytics can be useful in the development of smart cities. [10]

OR

7. What is RDD? Explain about transformations and actions in the context of RDDs. State and explain RDD operations in brief. [10]

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8. Describe the steps involved in sampling design. Discuss the criteria for selecting a sampling procedure. [10]

OR

9. Differentiate type i error and type ii error. How is a hypothesis tested? Explain with an example. [10]

10. Explain the principle of linear interpolation along a line segment P_0P_1 , when P_0 and P_1 are data points. Using diagrams show how this principle can be extended to bi-linear interpolation in a square grid cell with vertices $P_0...P_3$, and to tri-linear interpolation in a cubic grid cell with vertices $P_0...P_7$. [10]

OR

11. A general model of the visualization process is a pipeline with four stages: data generation, pre-processing (filtering), mapping, and rendering. The user can interact with the visualization process at each of these stages. Indicate for each of the following input actions at which stage it will influence the process:

- a) Choosing a color scale
- b) Selecting a part from a data set to be visualized.
- c) Changing measurement parameters
- d) Selecting an iso-value
- e) Specifying a viewpoint and lighting conditions.

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Code No: 117JU

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2016

BIG DATA ANALYTICS

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

Note: This question paper contains two parts A and B.
 Part A is compulsory which carries 25 marks. Answer all questions in Part A.
 Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

- 1.a) List the types of accidents. [2]
- b) Write the elements of data architecture. [3]
- c) List the stages of OODA Loop. [2]
- d) What are standard reporting templates? [3]
- e) What is map reduce? [2]
- f) What is Key-value data store? [3]
- g) What are the types of machine learning? [2]
- h) How do you prepare the input data for an algorithm? [3]
- i) List Quick Visual Options in Tableau. [2]
- j) What is role of the workspace in Tableau? [3]

PART-B

(50 Marks)

2. Explain in detail about Export Job Process. [10]
3. List the Guidelines for identifying and reporting an accident or emergency in detail. [10]
- 4.a) What is Knowledge Management? [10]
- b) Explain about Model Based Techniques. [3+7]
5. Explain about the Kepner-Tregoe Matrix Decision model in detail. [10]
6. List the classification of NoSql Databases and explain about Columns based Database. [10]
7. Explain about the Graph Databases and Descriptive Statistics. [10]
8. Describe Train model using machine learning algorithm, Test model. [10]
9. Explain Knowledge Discovery in Databases task in detail. [10]
10. Explain data visualization in Tableau. [10]
11. Draw insights out of any one visualization tool. [10]

**MALLA REDDY COLLEGE OF ENGINEERING
AND TECHNOLOGY**



Question Bank
(Previous Question Papers And
Model Question Papers 2019-2020)

Compiled By,
Faculty of Cloud Computing
Department of CSE

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester

CLOUD COMPUTING

Model Paper-1

PART – A (Marks 25)

Answer All the Questions

1. (a) List the design objectives of HPC and HTC.
(b) Compare and contrast on: Grid and Cloud
(c) What is Amdahl's Law ?
(d) Enumerate the desired features of cloud.
(e) Discuss in brief about various types of cloud services.
(f) What points should be considered for proper migration of VM?
(g) Discuss about Eucalyptus?
(h) Write about Rackspace cloud files.
(i) What is CMMM?
(j) What is User-centric Identity?

PART – B (Marks 5 x 10 = 50)

2. Write short notes on:
(a) Cluster Job scheduling methods.
(b) Load sharing facility for cluster computing

OR

3. Discuss in detail about the OS level virtualization.
4. Explain in detail about the Roots of cloud computing.

OR

5. Write a detailed note on SaaS Integration products.
6. Describe in detail about VM provisioning and migration technique with relevant case study

OR

7. Describe the Comet Cloud Layered Architecture.
8. Explain in detail about the model for federated cloud computing

OR

9. Give the entity relationship diagram for Meta CDN database and explain its architecture.
10. Discuss in detail about Deming's PDSA cycle.

OR

11. Explain Cloud Service Life Cycle in detail?

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester

CLOUD COMPUTING

Model Paper-2

PART – A (Marks 25)

Answer All the Questions

1. (a) Write briefly about Virtual Machines?.
- (b) What are cyber physical systems?
- (c) What is autonomic computing?
- (d) What are the four adoption strategies?
- (e) List the characteristics of private cloud?
- (f) Discuss the role of OCCI and OGF in virtualization and standardization.
- (g) List out the issues that arise while adopting cloud paradigm in HPC context?
- (h) Define organizational readiness.
- (i) Discuss Service Design phase in cloud service Lifecycle?
- (j) What is an information card?

PART – B (Marks 5 x 10 = 50)

2. What is the SGI system model and its specification? Illustrate the cluster architecture with a block diagram and describe the functionality of each building block.

OR

3. List out the different classes of virtualization architecture. Discuss in detail about the hypervisor and Xen architecture .

4. Illustrate with a case study about the features of Infrastructure as a service providers

OR

5. Explain the various cloud Integration Scenarios?
6. Explain in detail about Aneka architecture?

OR

7. Discuss in detail about the design of RVWS framework.
8. Briefly explain the SLA management in cloud with flow chart?

OR

9. What is AWS? Explain the best practices that help in building an application in the cloud?
10. Briefly explain the change management maturity model?

OR

11. Discuss about data security risks in cloud? Explain how digital identity can overcome these risks.

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester

CLOUD COMPUTING

Model Paper-3

PART – A (Marks 25)

Answer All the Questions

1. (a) Define cloud computing?
(b) Enumerate the cluster family classification.
(c) Discuss any three features of IaaS.
(d) Write short notes on SaaS cloud service offering
(e) What are the three forms of Lease?
(f) What are the key motivations for autonomic cloud bursts?
(g) List out the issues for a grid and cloud integration.
(h) Explain the need for cloud mashups
(i) Write short notes on environment factors.
(j) Define production readiness.

PART – B (Marks 5 x 10 = 50)

2. Discuss in detail about the three new computing paradigms with respect to High throughput computing

OR

3. Explain in detail about the different categories of hardware virtualization.
4. Discuss the seven steps model of migration into cloud

OR

5. Explain in detail the adoption and consumption strategies.
6. What is Eucalyptus? Explain its architecture?

OR

7. Explain with a neat diagram the architecture of workflow management system.
8. Explain the phases in the life cycle of a SLA?

OR

9. Write a short notes on,
(a) User-centric clouds
(b) Multimedia streaming

10. (a) Discuss in brief about the cloud computing and data security risk.
(b) List the pros and cons of content level security.

OR

11. Explain about the five driving factors to comprehend computing environment.

Code No: XXXX

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester,

CLOUD COMPUTING

Model Paper-4

PART – A (Marks 25)

Answer All the Questions

1. (a) Explain SOA.
- (b) Discuss about virtualization middleware?
- (c) What are the challenges and risks of Cloud Computing?
- (d) Explain the difference between multi tasking, multi threading and Virtualization.
- (e) Explain the importance of availability, reliability and performance of the cloud.
- (f) Define elasticity rule? Discuss the three types of elasticity rules?
- (g) List the benefits and drawbacks of using “Infrastructure as a Service”
- (h) What are the drawbacks and threats of cloud computing?
- (i) Compare online agreements and service contracts with respect cloud contracting models.
- (j) What is active monitoring and passive monitoring in cloud service operation?

PART – B (Marks 5 x 10 = 50)

2. Differentiate between Full virtualization and Para virtualization?

OR

3. Discuss in detail about the hardware assisted virtualization with respect to CPU, Memory and I/O Devices
4. What is the need for Migration in the cloud? Explain broad approaches of Migrating into a Cloud?

OR

5. List and explain the deployment models for enterprise cloud computing.
6. (a) What is SLA? Explain how SLA are important for the organization
- (b) What are the important steps that need to be followed in preparing SLA's?

OR

7. Explain about Enhancing Cloud Computing Environments using a Cluster as a Service.
8. What are the basic principles of cloud computing?

OR

9. Compare the performance of HPC systems and HPC on cloud?
10. Discuss the need of the following:

GLB act

Role of FTC

HITECH Act

USA PATRIOT Act

OR

11. Write about CROPS change management Framework?

IV- I QUESTION BANK

Code No: 117BN

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD B.
Tech IV Year I Semester Examinations, November/December - 2016
CLOUD COMPUTING
(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

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

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

- 1.a) Differentiate between parallel and distributed computing Paradigms. [2]
- b) Define Virtual Machines and with neat diagrams explain VM Primitive operations. [3]
- c) Define PaaS and give any application/enterprise run by using PaaS. [2]
- d) Write a short note on desired features of a Cloud. [3]
- e) Explain briefly Public Cloud and Infrastructure Services. [2]
- f) Explain Virtual Machine life cycle with a neat diagram. [3]
- g) What are the benefits and obstacles for Cloud Mashups? [2]
- h) Explain the applications of cloud. [3]
- i) Write a short note on SLA Management. [2]
- j) Write a short note on the current state of the Data Security in the Cloud. [3]

PART-B

(50 Marks)

- 2.a) Write a short note on Performance Metrics and Scalability Analysis of Distributed systems.
- b) Explain the role of Fault Tolerance and System Availability in Distributed Computing System. [5+5]

OR

- 3.a) Explain the basic Cluster Architecture with a neat diagram.
- b) Write a short note on Fault-Tolerant Cluster Configurations. [5+5]
- 4.a) Explain the challenges faced by SaaS paradigm in Cloud Computing.
- b) Explain the three Integration Methodologies used for cloud integration. [5+5]

OR

- 5.a) Explain the four Enterprise Cloud Adaption Strategies using fundamental cloud drivers.
- b) Write a short note on Porter's five forces market model. [5+5]
- 6.a) Explain various Migration techniques used in Virtual Machine Migration
- b) Explain Aneka framework architecture with a neat diagram. [5+5]

OR

- 7.a) Explain Comet-Cloud Architecture with a neat diagram.
- b) Write a short note on importance of Quality and Security in Cloud. [5+5]

- 8.a) Write a short note on basic principles of cloud computing.
b) Explain briefly the Layers Enhancements for Federation (RESERVOIR Architecture). [5+5]

OR

- 9.a) Write a short note on Traditional Approach to SLA Management.
b) Write a short note on the need for Cloud Mashups and various concepts of Cloud Mashups. [5+5]

- 10.a) Explain briefly the framework to comprehend the competitive environment in Cloud Computing.
b) Write a short note on Change Management Maturity Model (CMMM). [5+5]

OR

- 11.a) Explain in detail the idea of “Cloud Computing and Identity” in Cloud Security.
b) Explain how Cloud Computing is different from Outsourcing and Provision of Application Services. [5+5]

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Code No: 117BN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, March - 2017
CLOUD COMPUTING
(Computer Science and Engineering)

Time: 3 Hours**Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A (25 Marks)

- | | |
|--|-----|
| 1.a)What is parallel computing? | [2] |
| b)Explain the need of virtual machine? | [3] |
| c) What is Virtualization? | [2] |
| d) Explain the features of cloud computing? | [3] |
| e)What is cloud infrastructure? | [2] |
| f) Explain Leasing model? | [3] |
| g) What is the need for Cloud Mashups? | [2] |
| h) What are the Key Components of a Service-Level Agreement? | [3] |
| i) What is organizational readiness? | [2] |
| j) What is production readiness? | [3] |

Part-B (50 Marks)

- | | |
|---|-------|
| 2. Explain the Distributed System Models. | [10] |
| OR | |
| 3.a) Explain virtualization of clusters. | |
| b) Describe the data model for virtual machine. | [5+5] |
| 4.a) Give an overview of interprise cloud computing paradigm. | |
| b) Explain the seven-step model of migration into a cloud. | [5+5] |
| OR | |
| 5.a) Explain the cloud integration methodologies. | |
| b) Describe the cloud supply chain(C-SC). | [5+5] |
| 6.a) Explain the Virtual Machine(VM) provisioning process. | |
| b) Describe the life cycle of a VM within OpenNebula. | [5+5] |
| OR | |
| 7.a) Explain the Amazon Elastic Compute Cloud (EC2). | |
| b) Explain features of Cluster as a Service (CaaS). | [5+5] |

- 8.a) Describe the model for federated cloud computing.
b) Discuss the performance-related issues of HPC in the Cloud. [5+5]

OR

- 9.a) Explain the Business Benefits of Cloud Computing.
b) Explain the cloud best practices. [5+5]

- 10.a) Explain the Organizational Readiness Self-Assessment.
b) Describe the Lewin's Change Management Model. [5+5]

OR

- 11.a) Distinguish Cloud Computing from Outsourcing and Provision of Application Services.
b) Explain the Cloud service lifecycle. [5+5]

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Code No: 117BN**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, November/December - 2017****CLOUD COMPUTING****(Computer Science and Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

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

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A**(25 Marks)**

- 1.a) Describe computational grids. [2]
- b) Explain any three services offered by cloud. [3]
- c) Explain Storage virtualization. [2]
- d) Explain high availability and data recovery. [3]
- e) Explain Open nebula. [2]
- f) What is lease scheduling? [3]
- g) What are the business benefits of cloud computing? [2]
- h) Explain Virtual administration in cloud. [3]
- i) Explain data Interoperability in cloud. [2]
- j) Explain software Vulnerability and Breaches in cloud. [3]

PART-B**(50 Marks)**

- 2.a) Elucidate Network threats and data integrity.
 - b) Briefly explain the design principles of computer clusters. [5+5]
- OR**
- 3.a) Explain system models for distributed and cloud computing.
 - b) What are the design objectives of computer clusters? [5+5]
- 4.a) Describe various deployment models in cloud.
 - b) Elucidate hardware virtualization. [5+5]
- OR**
- 5.a) Explain the functions and types of Hypervisors.
 - b) Describe the features, challenges and risks in cloud computing. [5+5]
- 6.a) Elucidate Amazon Elastic cloud computing.
 - b) Explain the architecture of Eucalyptus. [5+5]
- OR**
7. Explain the implementation of hybrid cloud. [10]

- 8.a) Explain a model for federal cloud computing.
b) Explain the best practices to build an application on cloud. [5+5]

OR

- 9.a) What are the External threats and Internal threats of virtualization infrastructure.
b) Elucidate SLA management in cloud. [5+5]

- 10.a) Elicit the pros and cons of content level security.
b) Distinguish Cloud Computing from outsourcing and provision of application services. [5+5]

OR

11. Elucidate Cloud service life cycle. [10]

---ooOoo---

R15

Code No: **R15A0529**

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Regular Examinations, November 2018

Cloud Computing

(CSE)

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 List out challenges of cloud computing ? [2M]
- b What are the impacts of cloud platforms on the future of the HPC and HTC industry? [3M]
- c Which cloud is shared by several organisations and what are its concerns? [2M]
- d Why security and privacy affect the entire cloud computing stack? [3M]
- e What are the characteristics exhibited by private clouds? [2M]
- f Write short notes on data integration model? [3M]
- g What is the objective of load balancing? [2M]
- h Why enterprises realized that it was economical to outsource the application hosting activity to third party infrastructure providers? [3M]
- i List the Characteristics of a truly scalable application? [2M]
- j What is the difference between user-centric identity vs enterprise-centric identity? [3M]

PART-B (50 MARKS)

SECTION-I

- 2 plain in detail about four system models [10M]

OR

3. a. plain the architectural and functional differences among three availability cluster configurations: hot standby, active takeover, and fault-tolerant clusters? [5M]
- b. plain the Virtualization Support for Linux and Windows NT Platforms [5M]

SECTION-II

4. a. Explain the specialized features that influence IaaS offerings? [5M]
- b. Explain the issues for enterprise applications on the cloud? [5M]

OR

5. Explain the iterative model of migration into the cloud? [10M]

SECTION-III

6. Explain briefly about the architecture of ANEKA frame work. [10M]

OR

7. a. How OpenNebula manages a VMs life cycle? [5M]
- b. Briefly explain about the vulnerabilities in current cloud services? [5M]

SECTION-IV

8. a. Explain the existing approaches to capacity Reservation? [5M]
b. Classify and explain about the threats of large-scale cross-border virtualization infrastructure? [5M]

OR

9. What is a SLA? Explain different types and phases of SLA [10M]

SECTION-V

- 10 a. Explain about the common management model [5M]
b. What is an identity card? How do you use identity card to protect data? [5M]

OR

11. With a neat diagram explain how perception plays a heavier role in assessment of quality [10M]

Code No: R15A0529

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Supplementary Examinations, May 2019**Cloud Computing**

(CSE)

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 Why are virtual machines and virtual clusters suggested in cloud computing systems? [2M]
- b What are the advantages of a clustered system over a traditional SMP server? [3M]
- c What is the use of Windows Azure Fabric Controller? [2M]
- d How SaaS providers responded to the integration challenge and what are its problems? [3M]
- e What is the additional problem to be dealt by virtual infrastructure management in private clouds? [2M]
- f Write a short notes on deployment models of cloud. [3M]
- g What is the use of Elastic IP addresses? [2M]
- h How to enable monitoring on an Amazon EC2 instance and what is its use? [3M]
- i What is the significance of service strategy in defining the service principles? [2M]
- j What are some of the questions that the service provider should address for producers to provide the desired cloud services? [3M]

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

2. a. What is VMM? Explain XEN Architecture. [5M]
 - b. Differentiate full virtualization and para virtualization [5M]
- OR
3. a. Explain how illusion can be obtained using Single system Image (SSI)? [5M]
 - b. Explain the various performance metrics are needed to measure various distributed systems? [5M]

SECTION-II

4. Explain the economic and business reasons why an enterprise application can be migrated into the cloud? [10M]

OR

5. a. Explain the features that deter the massive adoption of clouds? [5M]
- b. Explain why SaaS integration is hard? [5M]

SECTION-III

6. Explain briefly an overview on the typical life cycle of VM and its major possible states of operation. [10M]

OR

7. a. Briefly explain some of the migration's techniques that most virtualization tools provide as a feature. [5M]
- b. Illustrate the unique requirements for cloud computing data security from a few different perspectives? [5M]

SECTION-IV

8. Explain the fundamental requirement from the providers of cloud computing to allow virtual applications to freely migrate, grow, and shrink? [10M]

OR

9. a. Explain briefly about the major components and interfaces in the RESERVOIR architecture? [5M]

b. Explain why SAP systems are used for a variety of business applications? [5M]

SECTION-V

10. Explain why executives must articulate a new vision and must communicate aggressively and extensively to make sure that every employee understands ? [10M]

OR

11. a. Define CMMM? Discuss its need [5M]

b. Explain cloud service life cycle in detail [5M]

Code No: R15A0528

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

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

(CSE)

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 Describe the Subscribe/Notify protocol in MVC model. [2M]
- b How to select a design pattern? [3M]
- c Draw the structure Factory Method. [2M]
- d Explain briefly about “Monoglyph”. [3M]
- e Describe the motivation for Bridge Pattern. [2M]
- f What are the two variations of the Adapter pattern? [3M]
- g List out the Consequences of Chain of Responsibility Pattern. [2M]
- h Describe the intent of mediator pattern? [3M]
- i Explain Alexander’s pattern Languages? [2M]
- j Describe patterns in software. [3M]

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

- 2 a) State and explain the classification of design patterns? [5M]
 - b) Describe the consistent format for describing the design patterns [5M]
- OR
- 3 a) What are some common causes of redesign? Explain. [5M]
 - b) Draw a diagram to describe design pattern relationships. [5M]

SECTION-II

- 4 Explain in detail about “supporting multiple window systems”. [10M]
- OR
- 5 a) List out the implementation issues of prototype design pattern? Discuss. [5M]
 - b) Write sample code of Prototype pattern. [5M]

SECTION-III

- 6 Discuss the Intent, Applicability, Sample code, and Known uses of the following Patterns: [5M]
[5M]
a) Adapter b) Flyweight.
- OR
- 7 Discuss the pattern name, Applicability, Consequences and Related Patterns of the following Patterns [5M]
[5M]
a) Bridge b) Proxy

SECTION-IV

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

OR

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

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 Explain the following: [5M]

a) Discussion of behavioral patterns [5M]

b) Template method pattern.

Code No: R15A0528

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Regular Examinations, Nov 2018**Design Patterns**

(CSE)

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 | 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 | Explain the Catalog of Design Patterns? | [5M] |

SECTION-II

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

SECTION-III

- | | | |
|----|---|------|
| 6 | a) Explain Robust iterator & Nulliterator | [5M] |
| | b) Explain the benefits & Drawbacks of Mediator? | [5M] |
| OR | | |
| 7 | Explain the TCP connection in state with Suitable code? | [5M] |

SECTION-IV

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

OR

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

SECTION-V

10 Explain the Implementation of Template Patterns in Strategy? [5M]

[5M]

OR

11 Explain the following: [5M]

Pattern Community

[5M]

Life Cycle of Object Oriented Software

.

Code No: **R15A0528****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****IV B. Tech I Semester Regular Examinations, May 2018****Design Patterns****(CSE)**

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

- 1 a) Explain how the design patterns specifying the object interfaces [2M]
 b) Differentiate Aggregation and Acquaintance in Run Time Structures. [3M]
 c) Explain the Similarities of Frame Work and Design Patterns? [2M]
 d) Explain the Partial Glyph class Hierarchy? [3M]
 e) Explain the User Operations in Document Structure? [2M]
 f) Explain the Intent and Structure of Singleton pattern? [3M]
 g) Explain the Intrinsic state and extrinsic state of Flyweight pattern? [2M]
 h) How observer pattern interact with subject and observer. Explain with suitable diagrams? [3M]
 i) Explain template method that calls hook operations at specific points? [2M]
 j) Explain Alexander's pattern Languages? [3M]

SECTION-I

- 2 a) Explain the elements of Design Patterns?
 b) How Design Problems putting Reuse Mechanism to Work? [5+5]

OR

3. Explain Design Problems of Lexi's Design [10]

SECTION-II

4. Explain the Consequences, Implementation Issues of Abstract Factory Pattern? [10]

OR

5. Explain the Motivation, Structure, Related patterns, and Known Uses of Adapter Pattern? [10]

SECTION-III

- 6 a) How the Broadcast communication is possible in observer? [5+5]
 b) Explain the Node visitor in Abstract Syntax tree?

OR

- 7 Explain the Policy pattern in Behavioral Pattern? [10]

SECTION-IV

8. Explain the Sample code & consequences of Memento? [10]

OR

9. Explain Benefits & Drawbacks of Mediator?

[10]

SECTION-V

10. Explain the Implementation of Façade Pattern with suitable examples?

[10]

OR

11. Write short notes on the following.

a) Explain the Pattern community

b) How we can exchange & extend the grammar in Interpreter Pattern?

[5+5]

Code No: R15A0528

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Regular Examinations, Nov 2017**Design Patterns**

(CSE)

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 Essential elements of Design Patterns? | [2M] |
| b | Explain the advantages and disadvantages of Delegation? | [3M] |
| c | How to Use a Design Pattern? | [2M] |
| d | Explain WYSIWYG document interface? | [3M] |
| e | Explain Embellished object structure in Decorator pattern? | [2M] |
| f | Explain the Structure of Builder? | [3M] |
| g | Explain the Consequences of Adapter Pattern? | [2M] |
| h | How command will support Undo & Redo capabilities? | [3M] |
| i | How Mediator & Singleton related with observer? | [2M] |
| j | Explain token Object in Behavioral 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 | Explain the Design Patterns in terms of relationship? | [5M] |
| | | [5M] |

SECTION-II

- | | | |
|---|---|-------|
| 4 | Explain the Implementation of Abstract Factory with examples? | [10M] |
| | | |
| 5 | Explain the Sample Code and Related Pattern of Prototype Pattern? | [5M] |
| | | [5M] |

SECTION-III

- | | | |
|---|---|------|
| 6 | a) Explain Motivation and Applicability of Interpreter Patter | [5M] |
| | b) Explain the collaboration & consequences of Visitor? | [5M] |

OR

- | | | |
|---|--|------|
| 7 | Explain about two patterns which providing hooks for Subclass? | [5M] |
| | | [5M] |

SECTION-IV

- 8 Should Communication be encapsulated or Distributed-compare Mediator and Observer patterns? [10M]
- OR
- 9 Explain state Applicability and Structure? [10M]
- SECTION-V**
- 10 Explain Sample code & related patterns of Memento? [5M]
[5M]
- OR
- 11 Write short notes on the following. [5M]
a) How the Broad cast communication is possible in Observer. [5M]
b) Alexander's Pattern Languages

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Code No: 117CF

R15

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2016

DESIGN PATTERNS

(Common to CSE, IT)

Time: 3 Hours

Max. Marks: 75

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

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

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

- 1.a) What is Gang of Four *GOF*? [2]
- b) How to select a design pattern? [3]
- c) How many objects is the Singleton responsible for creating? [2]
- d) What are the consequences of the Abstract Factory pattern? [3]
- e) What is the basic problem being solved by the Bridge pattern? [2]
- f) What are the two variations of the Adapter pattern? [3]
- g) What is the intent of mediator pattern? [2]
- h) What are the consequences of Chain of Responsibility pattern? [3]
- i) What is Template method pattern? [2]
- j) What is the purpose of Visitor pattern? [3]

PART-B

(50 Marks)

- 2.a) What are the different ways in which patterns and frameworks share similarities and in which they differ? Discuss.
 - b) Describe the consistent format for describing the design patterns. [5+5]
- OR**
- 3.a) Give the step-by-step approach to apply a design pattern effectively.
 - b) What is the basis for classifying design patterns? Categorize and tabulate the design patterns. [5+5]
- 4.a) Discuss about Lexi's user interface and its design problems.
 - b) The Singleton uses a special method to instantiate objects. What is special about this method? [5+5]
- OR**
- 5.a) What are the implementation issues of prototype design pattern? Discuss.
 - b) Can we use an abstract factory for supporting multiple window system in Lexi's design? Explain. [5+5]
- 6.a) Discuss in detail about the participants and consequences of Composite pattern.
 - b) What is the intent and motivation of Façade pattern? Explain. [5+5]

OR

- 7.a) When can be a Flyweight pattern effectively be applicable? Explain.
b) What are the different language features that are exploited by proxy pattern? [5+5]
- 8.a) Write about the implementation issues of memento pattern.
b) Explain the motivation and applicability of observer pattern. [5+5]
- OR**
9. What is Command Pattern? Describe in detail about structure, participants and collaborations of Command pattern. [10]
- 10.a) Discuss the implementation issues of Strategy behavioral pattern.
b) Explain what to expect from design patterns. [5+5]
- OR**
- 11.a) Discuss about the structure and participants of state design pattern.
b) Write about Pattern community in brief. [5+5]

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Code No: 117CF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year I Semester Examinations, November/December - 2017****DESIGN PATTERNS****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A**(25 Marks)**

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

PART-B**(50 Marks)**

- 2.a) What are some common causes of redesign? Explain.
 - b) How to use a design pattern? Explain in detail. [5+5]
- OR**
- 3.a) Discuss about toolkits and frameworks.
 - b) Draw a diagram to describe design pattern relationships. [5+5]
- 4.a) Describe formatting in Lexi's design.
 - b) What are consequences of Builder pattern? Explain Builder pattern implementation. [5+5]
- OR**
- 5.a) Explain about encapsulating the analysis in Lexi's design.
 - b) Write sample code of Prototype pattern. [5+5]
- 6.a) Explain the sample code of Flyweight pattern.
 - b) Discuss about implementation issues of Decorator pattern. [5+5]
- OR**
- 7.a) Write about motivation and consequences of Façade pattern.
 - b) Write sample code of Composite pattern. [5+5]

- 8.a) Explain about Mediator pattern.
b) Explain about motivation of Mediator pattern. [5+5]

OR

- 9.a) Briefly discuss about Memento pattern.
b) Describe implementation of Command pattern. [5+5]

- 10.a) Write some of the benefits and liabilities of the Visitor pattern.
b) Discuss about the pattern community. [5+5]

OR

11. Explain the following:
a) Discussion of behavioral patterns
b) Template method pattern. [5+5]

--ooOoo--

Code No: 117CF

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech IV Year I Semester Examinations, March - 2017****DESIGN PATTERNS****(Common to CSE, IT)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A (25 Marks)

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

Part-B (50 Marks)

- 2.a) How to use design patterns? Explain in detail.
 - b) Explain about selection of a design pattern. [5+5]
- OR**
3. How a Design pattern solves the design problem? Illustrate with an example.[10]
 4. Discuss the Motivation, Structure, Collaborations and Implementation of the following Patterns:
 - a) Abstract Factory
 - b) Prototype. [5+5]
- OR**
5. Explain in detail about "supporting multiple window systems". [10]
 6. Discuss the Intent, Applicability, Sample code, and Known uses of the following Patterns:
 - a) Adapter
 - b) Flyweight. [5+5]
- OR**
7. Discuss the pattern name, Applicability, Consequences and Related Patterns of the following Patterns
 - a) Bridge
 - b) Proxy [5+5]

8. Explain in detail about Command pattern. [10]
- OR**
9. Describe in detail about Iterator Pattern. [10]
10. Explain the Motivation, Participants, Structure and Implementation of following Patterns
- a) State b) Template Method. [5+5]
- OR**
11. Discuss briefly about the following Patterns:
- a) Visitor b) Strategy. [5+5]

Code No: XXXXX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD**B. Tech IV Year I Semester****Data Warehousing and Data Mining
(Computer Science and Engineering)****Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A are compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 1**PART-A(Answer all the Questions)**

- 1.a) Write the differences between data warehousing and data mining.(3M)
 - b) Define multi dimensional data mining.(2M)
 - c) State the various views of data warehouse design?(3M)
 - d) Name the steps involved in data mining?(2M)
 - e) Name the pruning strategies in mining closed frequent item sets?(3M)
 - f) List the applications of pattern mining?.(2M)
 - g) Differentiate the supervised and unsupervised learning(2M)
 - h) Write short notes on the back propagation algorithm? (3M)
State the applications of clustering.(3M)
 - j) Explain briefly about the grid based method (2M)
2. Write the differences between operational databases and data warehousing? (10M)
OR
3. Explain in detail about the evolution of database technology.(10M)
4. Discuss briefly about multi dimensional data models?(10M)
OR
5. State and explain the methods used for efficient data cube computation(6M)
6. Discuss the FP-Growth algorithm with an example.(10M)
OR
7. Explain how to mine the multidimensional association rules from relational databases and data warehouses?
8. Discuss in detail about the decision tree induction algorithm.(10M)
OR
9. Write in detail about the k-nearest neighbor classifier and case-based reasoning?
10. Define and explain the two hierarchical clustering methods: BIRCH and CHAMELON.(10M)
OR
11. Explain about
 - a) Statistical-based outlier detection.(5M)
 - b) Distance-based outlier detection. (5M)

Code No: XXXXX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD**B. Tech IV Year I Semester****Data Warehousing and Data Mining
(Computer Science and Engineering)****Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A are compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 2**PART-A(Answer all the Questions)**

- 1.a) Write a short notes about the issues in data mining.(3M)
 - b) Define characterization and discrimination.(2M)
 - c) Explain in short about the virtual data warehouse.(3M)
 - d) Define concept hierarchy. Explain the types of concept hierarchies.(2M)
 - e) Define closed item set and maximal frequent item set.(3M)
 - f) What is an association? Write a short notes about association rule mining.(2M)
 - g) Define regression analysis..(2M)
 - h) Write a short notes about the attribute selection measures.(3M)
 - i)Write neatly about the data types used in cluster analysis.(3M)
 - j) Write about the density based clustering.(2M)

PART-B

2. Define data mining and explain in detail about the data warehouse architecture with a neat diagram.(10M)

OR

3. What are the primitives that specify the data mining task? Explain in detail about the data smoothing techniques.(10M)

4. Write neatly about different schemas used in multi dimensional data mining with an example for each.(10M)

OR

5. Define ROLAP, MOLAP, and HOLAP. Explain in detail about the efficient methods of data cube computation. (10M)

6. Write and explain the APRIORI algorithm with an example.

OR

7. Write a short notes about the interestingness measures. Discuss about constraint based association rule mining.

8. What measures are used to find best split in Decision Tree Induction algorithm? How Can we improve the scalability in Decision Tree Induction algorithm?(10M)

OR

9. Describe the working procedures of simple Bayesian classifier. Discuss the Back propagation algorithm.

10. Explain in detail about the categories of major clustering methods.(10M)

OR

11. What is an outlier? Explain about (10M)

- a) Distance-based outlier detection
- b) Statistical based outlier detection
- c) Density-based outlier detection.

Code No: XXXXX**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD****B. Tech IV Year I Semester****Data Warehousing and Data Mining
(Computer Science and Engineering)****Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 3**PART-A(Answer all the Questions)**

- 1) a)What are the advantages of data warehouse?(3M)
- b)Define OLAP. (2M)
- c)List the major issues in data mining. (3M)
- d)List the reasons for using data mining? (2M)
- e)List the reasons for using data mining? (3M)
- f)Define FP-tree? (2M)
- g)What is Hunt's Algorithm?(2M)
- h)What is holdout technique? (3M)
- i)List the requirements of clustering.(3M)
- j) Write in brief about index based algorithms (2M)

PART-B

2.Explain the steps for designing and constructing data warehouse? (10M)

OR

3.What is data mining? List and describing the motivating challenges of data mining.(10M)

4.Discuss in brief about fact table.(10M)

OR

5.Explain in detail about transformation? (10M)

6. Explain in detail the construction of FP tree?(10M)

OR

7.Discuss in brief about,

- a)Maximum frequent item set.(5M)
- b)Closed frequent item set.(5M)

8 Write notes on evaluating the performance of a classifier?.(10M)

OR

9.How a Naive Bays classifier works? Explain with an example?(10M)

10.What is cluster analysis? Explain with suitable Example.(10M)

OR

11.What are different types of hierarchical methods? Explain?(10M)

Code No: XXXXX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD**B. Tech IV Year I Semester****Data Warehousing and Data Mining
(Computer Science and Engineering)****Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A are compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 4**PART-A(Answer all the Questions)**

- 1
 - a) Compare OLAP system versus statistical databases?(3M)
 - b) What are the differences between fact and dimension tables?(2M)
 - c) Write a brief note on data discretization? (3M)
 - d) Discuss briefly about similarities between data objects? (2M)
 - e) Describe Brute-forces method to generate candidate's item sets? (3M)
 - f) Discuss briefly the monotonicity property. (2M)
 - g) List the advantages of information gain?(2M)
 - h) List the weaknesses of k-means? (3M)
 - i) Write short note on density based outlier detection?(3M)
 - j) Write short notes on density based outlier detection.?(2M)

PART-B

2. Draw and explain the three tier data warehouse architecture? (10M)

OR

3. Illustrate and explain the OLAP architecture.(10M)

4. Explain different data pre- processing techniques.(10M)

OR

5. Explain with example the Jaccard coefficient? (10M)

6. With an example, explain the Fp-growth algorithm?.(10M)

OR

7. Explain in detail the candidate generation procedures (10M)

8. Discuss various types of classification techniques.(10M)

OR

9. Write an algorithm for decision tree induction? (10M)

10. What are the issue K-means?(10M)

OR

11. Explain briefly about statistical distribution based outlier detection. (10M)

Code No: XXXXX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech IV Year I Semester

**Data Warehousing and Data Mining
(Computer Science and Engineering)**

Time: 3 hours

Max Marks: 75

Note: This question paper contains two parts A and B. Part A are compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 5

PART-A(Answer all the Questions)

1.
 - a) Discuss the characteristics of fact table(3M)
 - b)What are the tools used for designing data warehouse?(2M)
 - c)What is data cleaning? (3M)
 - d)Write the algorithm for discrete wavelet transform (DWT)? (2M)
 - e)Define support and confidence? (3M)
 - f)What are the drawbacks of FP growth algorithm ? (2M)
 - g)What is meant by classification? What are the applications of classification model? (2M)
 - h)List the advantage of Bayesian classification? (3M)
 - i)Make a comparison of complete and partial clusters?(3M)
 - j) Discuss the times and space complexity of K-means.?(2M)

PART-B

2.Explain in detail about ETL? (10M)

OR

3.Write a short note on OLAP cube.(10M)

4.Explain the process of knowledge discovery in database.(10M)

OR

5.What is data cleaning? What are the different techniques for handling missing values? (10M)

6. With an example, explain the frequent item set generation in the Apriori algorithm.(10M)

OR

7.Explain the partition algorithm with an example. (10M)

8. Explain briefly the test conditions for different types of attributes?(10M)

OR

9.What is the role of nearest neighbor classifier? Explain it briefly? (10M)

10. Write a short note on partitioning clustering?(10M)

OR

11.Explain agglomerative hierarchical clustering. (10M)

Code No: XXXXX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B. Tech IV Year I Semester

Data Warehousing and Data Mining
(Computer Science and Engineering)

Time: 3 hours

Max Marks: 75

Note: This question paper contains two parts A and B. Part A are compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - 6**PART-A(Answer all the Questions)****Answer all of the following.**

1. a) Define KDD process. (2M)
- b) What is Data Discretization? (3M)
- c) Explain Minimum Support and Confidence Threshold (2M)
- d) Write the difference between OLAP and OLAM. (3M)
- e) What are Ensemble methods (2M)
- f) Explain the OLAP operations with examples. (3M)
- g) Write the short note on Frequent pattern sequences. (2M)
- h) Explain Graph Mining. (3M)
- i) Explain metadata repository. (2M)
- j) What is Classifier? Write the Bayesian Classification technique. (3M)

2.Explain Data Warehouse Implementation steps. (10M)

OR

3.Explain Attribute Oriented Induction Technique.

4.Explain Data Mining Functionalities. (10M)

OR

5.Explain Data Mining Task primitives.

6.Explain Mining Frequent Patterns using APRIORI. (10M)

OR

7.Explain Mining Frequent Patterns using FP-Growth.

8.Write a prototype for data mining application for Insurance DWH. (10M)

OR

9.Write about mining the web link structures to identify authoritative web pages.

10.Explain about Spatial data cube construction and spatial OLAP. (10M)

OR

11. Explain the Class Composition Hierarchies.

Code No: R15A0526

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
 (Autonomous Institution – UGC, Govt. of India)
IV B. Tech I Semester Supplementary Examinations, May 2019
Data Warehousing and Data Mining
(CSE)

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 Fact Constellation? | [2M] |
| | b | Discuss about the Fact Table | [3M] |
| | c | List out the Major issues in Data Mining | [2M] |
| | d | What is the Need for Preprocessing the Data | [3M] |
| | e | Define The Partition Algorithms | [2M] |
| | f | Discuss about the FP-Growth Algorithms | [3M] |
| | g | What is K- Nearest neighbor classification-Algorithm? | [2M] |
| | h | Explain about the Accuracy and Error measures | [3M] |
| | i | Give the different types of data in cluster analysis. | [2M] |
| | j | Discuss about the Grid-Based Methods | [3M] |

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

- | | | | |
|---|----|--|-------|
| 2 | a) | Differentiate between Fully Addictive and Semi-Addictive (5 M) | [10M] |
| | b) | Explain about the Non Addictive Measures and Fact-Less-Facts (5 M) | |

OR

- | | | | |
|---|----|---|-------|
| 3 | a) | Discuss about the Dimension Table Characteristics (5 M) | [10M] |
| | b) | Explain about the OLAP Cube and OLAP Operations (5 M) | |

SECTION-II

4 Write Short notes on Data Cleaning, Data Integration & Transformation, [10M]

OR

5 a) Explain about the Data Reduction (5 M) [10M]

b) Discuss about the Discretization and Concept Hierarchy Generation (5 M)

SECTION-III

6 Explain about the APRIORI Principle of Frequent Item Set [10M]

OR

7 Differentiate between Maximal Frequent Item Set and Closed Frequent Item Set [10M]

SECTION-IV

8 Explain about the Naive Baye's classifier with an example. [10M]

OR

9 Describe the Ensemble Methods [10M]

SECTION-V

10 Discuss about the Model based Clustering Methods. [10M]

OR

11 Explain about the Outlier Analysis [10M]

Code No: R15A0527

R15

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, May 2019

Linux 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 Define various permissions of a file in Linux [2M]
- b Define a shell. What are different types of shells used in Linux? [3M]
- c Mention the purpose of any two directory related commands. [2M]
- d Explain UNIX file system structure. [3M]
- e What are the different process states? [2M]
- f Discuss about the functionalities of kill() and raise() signals [3M]
- g List out some IPC mechanisms which work on processes on a single computer. [2M]
- h What is a Semaphore? Explain its operations. [3M]
- i Explain about Shared memory precisely. [2M]
- j Discuss about Client-Server Model. [3M]

PART-B (50 MARKS)

SECTION-I

- 2 a) Explain Sed script and its operations [5M]
- b) Discuss the control structures used in Shell. [5M]
- OR
- 3 a) Explain awk script and its operations with suitable examples [5M]
- b) Write a shell program to find the palindrome number. [5M]

SECTION-II

- 4 a) What are the drawbacks of using a symbolic link instead of a hard link? [5M]
- b) Explain about the following system calls: [5M]
- a) mkdir b) rewinddir c) seekdir
- OR
- 5 a) Explain the following system calls related to linking. [5M]
- a) link b) unlink C) symlink [5M]
- b) Differentiate file and record locking.

SECTION-III

- 6 a) What is a Process? Discuss about process creation and termination in detail. [5M]
 - b) Discuss unreliable signals with suitable examples [5M]
- OR

- 7 a) Differentiate between fork() and vfork().
b) Illustrate SIGKILL and SIGINT with an example program.

[5M]
[5M]

SECTION-IV

- 8 Elaborately discuss various forms of IPC supported by Linux.

[10M]

OR

- 9 Write a program to implement two-way communication using pipes.

[10M]

SECTION-V

- 10 Explain the kernel data structure for shared memory with a neat diagram. Also explain the APIs associated for creating and destroying a shared memory

[10M]

OR

- 11 a) Explain in detail about the following system calls with examples

[5M]

a) socket b) accept c) bind

- b) Discuss shared memory and its operations.

[5M]

Code No: R15A0527

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Supplementary Examinations, May 2019

Linux Programming

(CSE)

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 List out of the features of LINUX. [2M]
- b Write syntax for grep command. [3M]
- c What is 'fcntl' function in socket programming? [2M]
- d How to identify your home directory in shell command line? [3M]
- e Differentiate between fork and vfork. [2M]
- f What is an Orphan process? [3M]
- g Define Inter process communication. [2M]
- h What is the importance of namespaces in IPC channel creation. [3M]
- i What are recvfrom and sendto functions in UDP sockets. [2M]
- j Write about system call used with shared memory. [3M]

PART-B (50 MARKS)

SECTION-I

- 2 Explain various process utilities available in linux. [10M]
- OR
- 3 Write a shell script (Bourne shell) to read 3 arguments which are filename, starting line, ending line and display the line in between them by reading contents from file. [10M]

SECTION-II

- 4 Explain the following directory system calls with the help of a program [10M]
 - a) opendir
 - b) closedir
 - c) readdir
 - d) rmdir.

OR

- 5 What do you mean by a hole in a file? How does the use of lseek() result in hole in a file? Explain with an example program. [10M]

SECTION-III

- 6 What is a Signal? Write a C program to handle SIGALRM signal. [10M]
- OR
- 7 Write a C program for implementing concurrency over shared memory using Semaphore. [10M]

SECTION-IV

8 What are pipes? Explain their limitations. Explain how pipes are created and used in IPC with examples. [10M]

OR

9 Define unnamed pipe? How do we create unnamed pipe? Explain the limitations of unnamed pipe. [10M]

SECTION-V

10 Explain how to control a shared-memory segment. [10M]

OR

11 Write a C Socket Program for Linux with a Server and Client Example Code. [10M]

Code No: R15A0527

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Regular Examinations, November 2018

Linux Programming

(CSE)

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 Give any 3 examples for control structures in shell programming. [2M]
- b List some text processing Linux utilities. [3M]
- c Draw the file system structure? [2M]
- d Write the syntax of system calls used for creating links. [3M]
- e Write about signals. [2M]
- f What is a Zombie process? [3M]
- g Differentiate between unnamed and named pipes. [2M]
- h Write about semaphores. [3M]
- i List out some APIs associated for shared memory. [2M]
- j Write the necessity of socket address structures. [3M]

PART-B (50 MARKS)

SECTION-I

- 2 Explain various process utilities available in Linux. [10M]

OR

- 3 Explain about networking utilities in Linux [10M]

SECTION-II

- 4 Explain the following system calls with the help of examples [10M]

- a) rmdir ()
- b) mkdir ()
- c) opendir ()
- d) closedir ()

OR

- 5 Explain the file locking technique with relevant example code snippet. [10M]

SECTION-III

- 6 Write a program and explain how to transfer a large amount of data between two processes using message queues. [10M]

OR

- 7 Define orphan process. Write a program to illustrate the orphan process concept. [10M]

SECTION-IV

8 Write a program for file transfer between client and server processes using named pipes. [10M]

OR

9 Describe the API provided by Linux for semaphores. [10M]

SECTION-V

10 What are Berkeley socket and write a note on 'socket options'? [10M]

OR

11 Briefly explain comparison of IPC mechanisms. [10M]

Code No: 117EE**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, March - 2017****LINUX PROGRAMMING****(Computer Science and Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A (25 Marks)

- 1.a) What are the responsibilities of a shell? [2]
- b) Mention the functionality of the following commands: find, ls, umask. [3]
- c) What is the purpose of dot and dot dot directories in the file system? [2]
- d) Differentiate between soft linking and hard linking. [3]
- e) Name the advantages of waitpid() over wait(). [2]
- f) Discuss signal() and abort() system calls briefly. [3]
- g) Give the advantages of using named pipes. [2]
- h) What is the effect of O-NDELAY flag on pipes and fifos? [3]
- i) Give the differences between IPv4 and IPv6. [2]
- j) Explain the system call used to create a shared memory segment. [3]

Part-B (50 Marks)

- 2.a) Write an awk script to find the largest of 10 integers.
- b) Explain various networking utilities in LINUX with clear syntax, few options and example. [5+5]

OR

- 3.a) With an example script explain the differences between 'while' and 'until' statements.
- b) List and explain the various meta characters available in shell programming. [5+5]

4. Discuss the need and importance of lseek() system call with its relative merits and drawbacks. [10]

OR

5. Write the syntax of the following system calls and explain with an example code.
a) telldir b) mkdir [5+5]

- 6.a) What are process identifiers? Mention the commands for getting different IDs of calling process.
- b) Write a program that demonstrates the use of exit(). [5+5]

OR

- 7.a) What is a signal? How can it be generated? Also explain kernel's action on signal.
- b) Differentiate between reliable signals and unreliable signals. [5+5]

8. Describe various APIs of Message queues that are used for inter process communication. [10]

OR

9.a) Give the advantages and disadvantages of IPC_PERM structure.

b) Describe the operations of semctl() with a sample C program. [5+5]

10. Explain with a program how to copy file data from server to client using System V IPC mechanism shared memory. [10]

OR

11. Explain briefly about the following socket APIs with clear syntax:

a) accept() b) connect() [5+5]

--ooOoo--

Code No: 117EE**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech IV Year I Semester Examinations, November/December - 2017****LINUX PROGRAMMING****(Computer Science and Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

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

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A**(25 Marks)**

- 1.a) What are shell responsibilities? [2]
- b) What are the applications of awk? [3]
- c) What are hard links? [2]
- d) Write about file locking? [3]
- e) What are reliable signals? [2]
- f) Differentiate threads and processes. [3]
- g) What is IPC? [2]
- h) Explain popen. [3]
- i) What are Berkeley sockets? [2]
- j) List the APIs for shared memory. [3]

PART-B**(50 Marks)**

- 2.a) Explain associative arrays.
 - b) Write a shell script to find the factorial of a number. [5+5]
- OR**
- 3.a) Develop an AWK program to summarize from the list of all processes, a count of processes run by every user (including root).
 - b) Write about text processing utilities. [5+5]
4. Differentiate between the following terms:
 - a) getc() Vs fgetc()
 - b) stat() Vs fsat()
 - c) printf() Vs fprintf()
 - d) scanf() Vs fscanf().[10]
- OR**
- 5.a) Explain the following system calls:
 - i) open()
 - ii) seek()
 - iii) read()
 - iv) link()
 - b) Explain directory handling system calls. [5+5]

- 6.a) Differentiate between fork() and vfork().
b) Write the syntax of six versions of exec functions and also explain how these functions differ from each other. [5+5]

OR

7. Write a c program that accepts two small numbers as arguments and then sums the two numbers in a child process. The sum should be returned by child to the parent as its exit status and the parent should print the sum? [10]

8. Write a program and explain how to transfer a large amount of data between two processes using Message queues. [10]

OR

9. Explain the following concepts about pipes:
a) Pipes between two process
b) Pipes among three process in a shell. [5+5]

10. Explain with a program how to copy file data from server to client using shared memory. [10]

OR

- 11.a) Explain briefly about the following socket APIs with clear syntax:
i) socket() ii) bind() iii) listen() iv) accept() v) connect()
b) Compare various IPC mechanisms. [5+5]

---ooOoo---

Code No: 115ED

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, November - 2015

LINUX PROGRAMMING

(Information Technology)

Time: 3 hours

Max. Marks: 75

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

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A (25 Marks)

- 1.a) Illustrate 'rlogin' command with example. [2]
- b) Explain the significance of single quote and double quote. [3]
- c) Define stat () function with example. [2]
- d) Write the difference between fgetc() and getc() system calls. [3]
- e) What are the uses of fork() function? [2]
- f) Write the syntax of following functions. Explain each argument. [3]
 - i) kill() ii) raise() iii) alarm()
- g) What is a Message queue? [2]
- h) What is FIFO? Why FIFO's are called as named pipes? [3]
- i) Explain about shmctl () function. [2]
- j) Differentiate stream sockets and raw sockets. [3]

PART - B (30 Marks)

- 2.a) Explain **ftp** and its importance in Linux?
- b) Write a shell script which checks whether a given file contains a given word. If it does, the script should output the message "The file contains the word"; if not, it should output the message "The file doesn't contain the word". [5+5]

OR

- 3.a) Define **grep**. Write a **grep** command to display the lines which does not matches all the given pattern.
- b) Describe about I/O Redirection operations and built in variables in Shell. [5+5]

- 4.a) Differentiate soft link and hard link with examples.
- b) Describe usage of dup(), dup2() system calls with example. [5+5]

OR

- 5.a) Explain the kernel support for file system
- b) Explain about symlink () function with example program. [5+5]

- 6.a) What is an orphan process? Write a program to illustrate orphan process.
- b) Define Signals. What do you mean by Unreliable Signals? Explain. [5+5]

OR

- 7.a) What is the need of exec() system call? Write a C program to illustrate exec() function
- b) Describe SIGKILL and SIGINT with examples. [5+5]

- 8.a) What is a pipe? Using pipe, how IPC can be implemented.
b) Compare the IPC functionality provided by message queues and FIFO's. What are the advantages and drawbacks of each? Explain briefly. [5+5]

OR

- 9.a) Illustrate pipes? Explain their limitations. Explain how pipes are created and used in IPC with an examples.
b) Write a program and explain how to transfer a large amount of data between two processes using message queues. [5+5]
- 10.a) Explain with a program how to copy file data from server to client using shared memory
b) What are Berkeley socket and write a note on 'socket options'? [5+5]

OR

- 11.a) Differentiate all IPC mechanisms with examples.
b) Write a C Socket Program for Linux with a Server and Client Example Code. [5+5]

---ooOoo---

Code No: 115ED**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, November/December - 2016****LINUX PROGRAMMING****(Information Technology)****Time: 3 hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) Draw the architecture of UNIX like systems. [2]
- b) Explain 3 network related commands. [3]
- c) What are symbolic links? How is it different from hard links? [2]
- d) Why do we need chmod and fchmod functions? [3]
- e) What are the uses of fork function? [2]
- f) What is a zombie process? [3]
- g) Define Inter process communication. [2]
- h) State the importance of file locking. [3]
- i) List out some APIs associated for shared memory. [2]
- j) Write the differences between unix domain and inter domain. [3]

PART - B**(50 Marks)**

- 2.a) Explain briefly about text processing and process utilities.
- b) Differentiate between shell variables and environment variables and user defined variables. [6+4]

OR

- 3.a) Explain the following commands with syntax, options and examples:
i) head ii) tail
- b) Write a shell script to count the number of lines in a text file without using wc command. [4+6]

4. Write about File and Directory maintenance system calls? Give Syntax and examples. [10]

OR

- 5.a) Define a system call? Explain how the system call differs from that of the library functions.
- b) Write the syntax for the following
i) opendir ii) readdir iii) closedir iv) rewinddir [6+4]

- 6.a) Differentiate between `fork()` and `vfork()`.
b) Explain clearly the Signal concept with a suitable example. [4+6]

OR

- 7.a) Write the syntax of six versions of 'exec' functions and also explain how these functions differ from each other.
b) What are the signals that are not ignored or blocked? Explain the reason behind it with an example. [6+4]

8. What are pipes? Explain their limitations. Explain how pipes are created and used in IPC with an examples. [10]

OR

- 9.a) Write a program to illustrate `msgsnd()` and `msgrcv()` system calls.
b) What is meant by name space? Give the name spaces of various IPC mechanisms in Unix. [5+5]

- 10.a) Explain how to attach and detach a shared-memory segment.
b) Explain the working of 'fork' and 'join' in TCP/IP sockets. [5+5]

OR

- 11.a) Explain how to control a shared-memory segment.
b) Explain briefly about the following socket APIs with clear syntax: [4+6]
i) `bind()` ii) `listen()`

---ooOoo---

Code No: 115ED**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, March - 2017****LINUX PROGRAMMING****(Information Technology)****Time: hours****Max. Marks: 75****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A**(25 Marks)**

- 1.a) List some text processing Linux utilities. [2]
- b) Give any 3 examples for control structures in shell programming. [3]
- c) What is the difference between Linux file system and Windows file system? [2]
- d) How to identify your home directory in shell command line? [3]
- e) Where do we use 'nice' command in Unix C Shell? [2]
- f) What are the advantages of POSIX.1b timers over Unix timers? [3]
- g) Describe briefly the procedure for IPC between processes on a single computer. [2]
- h) Write about POSIX.1b semaphores. [3]
- i) What are recvfrom and sendto functions in UDP sockets. [2]
- j) What is 'fcntl' function in socket programming? [3]

PART - B**(50 Marks)**

2. Write about the following Unix commands with example.
Cal, date, echo, printf, bc, script, mailx, who, tty, sty. [10]

OR

- 3.a) What is bash in shell programming?
- b) Write about shell variables in Unix shell syntax. [5+5]

4. Describe Unix file system advantages and also state different commands used in System calls for I/O operations. [10]

OR

- 5.a) What does directory file in UNIX contain?
- b) Explore the following commands with examples. [5+5]
i) mkdir ii) rmdir iii) chdir iv) getcwd

6. What is Unix process status (ps) and explain the procedures for process creation, replacing a process image, waiting for a process, process termination, Zombie process. [10]

OR

7. How Unix kernel provides support for 'signals' and write about kill, raise, alarm, pause, abort and sleep functions used in Unix signals. [10]

8. List some APIs used for message queues and construct a sample code for Client – Server application using messages. [10]

OR

9. Write short notes on the following:

a) API's for semaphores

b) File locking with semaphores. [5+5]

10.a) Describe about Unix API for shared memory with examples.

b) Create a client-server interaction example using semaphores-shared memory. [5+5]

OR

11.a) What is socket address structure and compare various socket address structures?

b) Elaborate bind and listen functions in TCP sockets. [5+5]

---ooOoo---

Code No: 117EE

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2016

LINUX PROGRAMMING

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

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

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

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART- A

(25 Marks)

- 1.a) What are filters? List out various filters available in linux. [2]
- b) Explain command substitution [3]
- c) Distinguish between dup() and dup2() system calls. [2]
- d) Explain the functionality of fcntl() function. [3]
- e) Explain the sleep() function with syntax. [2]
- f) What is the difference between wait() and waitpid()? [3]
- g) Differentiate between unnamed and named pipes. [2]
- h) With the help of syntax explain popen() function. [3]
- i) Explain the necessity of socket address structures. [2]
- j) Explain how to perform IPC between processes over a network. [3]

PART-B

(50 Marks)

- 2.a) Explain various process utilities available in linux.
 - b) Write a shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it. [5+5]
- OR**
- 3.a) Explain various patterns and actions in awk.
 - b) Write an awk script to perform simple arithmetic operations. [5+5]
- 4.a) Explain the support given by kernel for files in detail.
 - b) What do you mean by a hole in a file? How does the use of lseek() result in hole in a file? Explain with an example program. [5+5]
- OR**
5. Explain the file and record locking techniques with relevant example code snippet. [10]
- 6.a) Explain the layout of a C program image in main memory.
 - b) Define orphan process. Write a program to illustrate the orphan process concept. [5+5]
- OR**
7. Explain the below system calls with the help of syntax and examples:
a) kill b) raise c) alarm d) pause e) abort [10]

- 8.a) Describe the API provided by linux for semaphores.
b) Write a program for locking a file using semaphore [5+5]

OR

- 9.a) Define unnamed pipe? How do we create unnamed pipe? Explain the limitations of unnamed pipe.
b) Write a program to accept the two integer numbers accepted by child, add them and result should be passed to parent. Parent process should print result on the screen using pipes. [5+5]

10. Describe Socket system calls used for connectionless protocol with syntax and usage. [10]

OR

- 11.a) Compare the IPC functionality provided by message queues with shared memory.
b) Explain how to handle multiple simultaneous clients. [5+5]

---ooOoo---

Code No: R15A0535

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(An UGC Autonomous Institution)

B. Tech IV Year I Semester Examinations

SEMANTIC WEB AND SOCIAL NETWORKS

(Computer Science and Engineering)**Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - I**PART-A**

- 1.a) How do you characterize information age? [2]
- b) How do you characterize next generation web? [3]
- c) Explain the importance of RDF Schema. [2]
- d) What is Ontology Mapping? [3]
- e) What is the significance of Inference Engine? [2]
- f) What are the merits of e-learning? [3]
- g) What is Semantic Search? [2]
- h) Explain a Semantic Method. [3]
- i) Differentiate between blogs and online communities. [2]
- j) What are the strengths of web based networks? [3]

PART-B

2. Explain a few intelligent web applications in reference to present day web and text generation web.

OR

3. Explain the possible contribution of Machine Intelligence in relation to Semantic web.

4. Explain RDF and give illustrative examples supporting it.

OR

5. Describe Ontology with the domain of your college university faculty, with teachers, courses and departments. Derive a method to check for inconsistencies in the proposed ontology.

6. Explain about semantic web applications and semantic web services.

OR

7. Explain semantic bioinformatics and knowledge base in detail.

8. "As semantic web technology is being introduced, knowledge systems are gaining the capability to support the automated acquisition, organization, processing, sharing and use of information in multimedia content". Discuss and Justify.

OR

9. Explain the development of Social Network Analysis along with the related issues and concepts.

10. Explain the generic architecture of Semantic Web applications

OR

11. "The effort required to develop applications for the semantic web has significantly **Code**

No: R15A0535

Code No: R15A0535

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(An UGC Autonomous Institution)

B. Tech IV Year I Semester Examinations

SEMANTIC WEB AND SOCIAL NETWORKS

(Computer Science and Engineering)**Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - II**PART-A**

- 1.a) Explain Next Generation Web Tools? [2]
- b) How AI is link with Semantic Web? [3]
- c) Explain the about Ontology Web Language. [2]
- d) What is Ontology Mapping? [3]
- e) Write about few Ontology Libraries? [2]
- f) What is Ontology and write its importance? [3]
- g) What is Semantic Search? [2]
- h) Explain a Semantic Method. [3]
- i) Explain about Web Search Agents. [2]
- j) What is Social Network Analyisi? [3]

PART-B

2. Discuss the strengths and limitations of present day world wide web. To overcome these weaknesses / limitations, what do you propose the next generation should be like.

OR

3. Discuss about intelligent web applications.

4. Discuss Inference engines and Software agents in so far as the logic on Semantic web is concerned.

OR

5. a. Discuss the features of Ontology?

b. Discuss how UML is used for knowledge representation? Discuss how UML is used for knowledge representation?

6. a. Discuss the process of constructing ontology.

b. Discuss ontology sharing.

OR

7. Discuss ontologies and languages concerned with Semantic Web.

8. Give a good presentation of Ontology libraries and Ontology mapping.

OR

9. Discuss the OWL-S service profiles? discuss how OWL-S ontology is created for web services

10. Explain Semantic Bio-informatics and knowledge bases.

OR

11. . Write short notes on:

- a. Electronic discussion networks
- b. blogs

Code No: R15A0535

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(An UGC Autonomous Institution)

B. Tech IV Year I Semester Examinations

SEMANTIC WEB AND SOCIAL NETWORKS

(Computer Science and Engineering)**Time: 3 hours****Max Marks: 75**

Note: This question paper contains two parts A and B. Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

MODEL PAPER - III**PART-A**

- 1.a) Explain Next Generation Web Tools? [2]
- b) How AI is link with Semantic Web? [3]
- c) Explain the about Ontology Web Language. [2]
- d) What is Ontology Mapping? [3]
- e) Write about few Ontology Libraries? [2]
- f) What is Ontology and write its importance? [3]
- g) What is Semantic Search? [2]
- h) Explain a Semantic Method. [3]
- i) Differentiate between blogs and online communities. [2]
- j) What are the strengths of web based networks? [3]

PART-B

- 2.Explain RDF and give illustrative examples supporting it.
OR
3. Explain about semantic web applications and semantic web services.

4. Explain the development of Social Network Analysis along with the related issues and concepts.
OR
5. Explain the generic architecture of Semantic Web applications.
6. Discuss the strengths and limitations of present day world wide web. To overcome these weaknesses / limitations, what do you propose the next generation should be like.
OR
7. Give a good presentation of Ontology libraries and Ontology mapping.
8. Discuss ontologies and languages concerned with Semantic Web
OR
9. Explain Semantic search technology and web search agents.
10. Discuss Inference engines and Software agents in so far as the logic on Semantic web is concerned.
OR
11. Explain blogs and social network features

btamal

R15

Code No: R15A0535

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B. Tech I Semester Regular Examinations, November 2018

Semantic Web and Social Networks

(CSE)

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 Discuss about Inference Engine. [2M]
- b What is Artificial Intelligence? [3M]
- c What is Ontology? [2M]
- d Discuss about RDF and OWL [3M]
- e Outline Monotonic rules? [2M]
- f Explain ontology sharing and merging [3M]
- g Define e-Learning. [2M]
- h Discuss XML based web services [3M]
- i What is Social Network Analysis? [2M]
- j Define blogs and online communities [3M]

PART-B (50 MARKS)

SECTION-I

- 2 a) Define Machine Intelligence. [5M]
- b) Explain semantic road map in detail [5M]

OR

- 3 a) Differentiate WWW and Semantic Web [5M]
- b) Discuss various software agents. [5M]

SECTION-II

- 4 Discuss in detail about RDF and RDF Schema [10M]

OR

- 5 What are the Ontology Languages for the Semantic Web? Explain in detail. [10M]

SECTION-III

- 6 Explain the process of ontology with "SPOT" examples. [10M]

OR

- 7 Explain different ontology methods and ontology mapping. [10M]

SECTION-IV

- 8 What are the services provided by Semantic Web? List some applications of it. [10M]

OR

- 9 Explain the semantic search technologies in detail. [10M]

W

SECTION-V

- 10 Discuss in detail about Electronic Discussion Networks [10M]
OR
11 Explain the ELMO, ELMO tools and GraphUtil [10M]
