

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

QUESTION BANK

**B.TECH (R17)
(IV YEAR – I SEM)
(2020-21)**



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]

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.

[10]

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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]
- OR
3. List the Guidelines for identifying and reporting an accident or emergency in detail. [10]
- 4.a) What is Knowledge Management? [3+7]
- b) Explain about Model Based Techniques. [3+7]
- OR
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]
- OR
7. Explain about the Graph Databases and Descriptive Statistics. [10]
8. Describe Train model using machine learning algorithm, Test model. [10]
- OR
9. Explain Knowledge Discovery in Databases task in detail. [10]
10. Explain data visualization in Tableau. [10]
- OR
11. Draw insights out of any one visualization tool. [10]

CLOUD COMPUTING

(R17A0527)

QUESTION BANK AND MODEL PAPERS

B.TECH IV YEAR – I SEM (R17) (2020-2021)



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

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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.

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. [5+5]
- 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. [5+5]
- b) Write a short note on Fault-Tolerant Cluster Configurations. [5+5]
- 4.a) Explain the challenges faced by SaaS paradigm in Cloud Computing. [5+5]
- 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. [5+5]
- 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 [5+5]
- b) Explain Aneka framework architecture with a neat diagram. [5+5]

OR

- 7.a) Explain Comet-Cloud Architecture with a neat diagram. [5+5]
- 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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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 enterprise 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. hat is VMM? Explain XEN Architecture. [5M]
 - b. fferentiate full virtualization and para virtualization [5M]
- OR
3. a. plain how illusion can be obtained using Single system Image(SSi)? [5M]
 - b. plain 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 deters 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]

UNIT-1

1. What is a Data Warehouse? Explain three types of schemas that are used for modeling data-warehouse with examples
- 2.a) With a neat sketch, Explain three tier architecture of data ware housing.
b) Differentiate operational database systems and data warehousing.
3. What is the significance of OLAP in data warehouse? Describe OLAP operations with necessary diagram/example.
4. Explain types of OLAP a)ROLAP b)MOLAP c)HOLAP

UNIT-2

1. Discuss briefly various forms of Data -Preprocessing.
2. Explain different data mining tasks for knowledge discovery.
3. Explain the various Data pre-processing techniques. How data reduction helps in data pre-processing
4. a) Explain concept hierarchy generation
b) Write a note on subset selection in attributes for data reduction.
5. What is the need of dimensionality reduction? Explain any two techniques for dimensionality reduction

UNIT-3

1. Explain a method that mines the complete set of frequent item sets without candidate generation for the table below. Explain the procedure in detail with minimum support=3

TID	Items
100	F, A, C, D, G, I, M, P
200	A, B, C, F, L, M, O
300	B, F, H, J, O, W
400	B, C, K, S, P
500	A, F, C, E, L, P, M, N

2. Explain the procedure to mining closed frequent data item sets.
3. Explain about ECLAT algorithm.

4. Write the FP-growth algorithm

UNIT-4

1. Describe the data classification process with a neat diagram. How does the Naive Bayesian classification works? Explain.
2. Write k-nearest neighbor classification algorithm and its characteristics.

3. Explain about Bayesian belief network.
4. Discuss on classification by back propagation.
5. Write k-nearest neighbor classification algorithm and its characteristics

UNIT-5

1. What is the goal of clustering? How does partitioning around medoids algorithm achieve this goal
2. Differentiate between AGNES and DIANA algorithms
3. Write K-means clustering algorithm.
4. Write the hierarchical clustering algorithm
5. What are the different clustering methods? Explain in detail

Code No: 126AQ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, May - 2016****INFORMATION SECURITY****(Computer Science and Engineering)****Time: 3hours****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 types of security attacks? [2]
- b) Compare substitution ciphers with transposition ciphers. [3]
- c) Compare block ciphers with stream ciphers. [2]
- d) Write about strength of DES algorithm. [3]
- e) What is a digital signature? [2]
- f) What properties must a hash function have to be useful for message authentication? [3]
- g) What are the various PGP services? [2]
- h) What parameters identify an SA and what parameters characterize the nature of a particular SA? [3]
- i) What is cross site scripting vulnerability? [2]
- j) What are the limitations of firewalls? [3]

PART-B**(50 Marks)**

- 2.a) Consider the following:
Plaintext: "PROTOCOL"
Secret key: "NETWORK"
What is the corresponding cipher text using play fair cipher method?
b) What is the need for security? [5+5]
- OR**
- 3.a) Explain the model of network security.
b) Write about steganography. [5+5]
4. Explain the AES algorithm. [10]
- OR**
5. Consider a Diffie-Hellman scheme with a common prime $q=11$, and a primitive root

$\alpha=2$.

a) If user „A“ has public key $Y_A=9$, what is A's private key X_A .

b) If user „B“ has public key $Y_B=3$, what is shared secret key K. [5+5]

6. Explain HMAC algorithm. [10]

OR

7.a) Explain the DSA Algorithm

b) What is biometric authentication [5+5]

8.a) Explain PGP trust model.

b) What are the key components of internet mail architecture? [5+5]

OR

9.a) Explain MIME context types.

b) What are the five principal services provided by PGP? [5+5]

10. Explain secure electronic transaction. [10]

OR

11.a) Explain password management.

b) What are the types of firewalls? [5+5]

Code No: 126AQ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, October/November - 2016****INFORMATION SECURITY****(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) Explain the network security model. [2]
- b) What are the two basic functions used in encryption algorithms? [3]
- c) What are the advantages of Key Distribution? [2]
- d) What are the principles of public key cryptosystems? [3]
- e) List three approaches to Message Authentication. [2]
- f) Explain the importance of knapsack algorithm. [3]
- g) What are different approaches to Public-key Management? [2]
- h) How does PGP provides public key management? [3]
- i) What is Secure Socket Layer? [2]
- j) What are different alert codes of TLS protocol? [3]

PART - B**(50 Marks)**

- 2.a) Explain the terminologies used in Encryption.
 - b) Describe in detail about Conventional Encryption Model. [5+5]
- OR**
- 3.a) Compare symmetric and asymmetric key cryptography.
 - b) What is Steganography? Explain its features. [5+5]
- 4.a) Differentiate linear and differential crypto-analysis.
 - b) Explain Block Cipher design principles. [5+5]
- OR**
5. Briefly explain the characteristics and operations of RC4 Encryption algorithm. [10]
- 6.a) What are the requirements of Authentication?
 - b) Discuss about Secure Hash algorithm. [5+5]
- OR**
- 7.a) Explain the approaches for Digital Signatures based on Public Key Encryption.
 - b) Discuss about Biometric Authentication. [5+5]

8. Briefly discuss about different services provided by Pretty Good Privacy (PGP). [10]

OR

9. What are different cryptographic algorithms used in S/MIME? Explain how S/MIME is better than MIME.

10.a) List and briefly define the parameters that define an SSL session state.

b) What are different services provided by the SSL Record Protocol? [5+5]

OR

11.a) What is a Firewall? Explain its design principles and types with example.

b) Discuss about Password Management. [5+5]

---ooOoo---

Code No: 126AQ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, May - 2017****INFORMATION SECURITY
(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) | Give various security services. | [2] |
| b) | What are the principles of security? | [3] |
| c) | Define Stream ciphers? | [2] |
| d) | Discuss about Blowfish. | [3] |
| e) | What is Biometric authentication? | [2] |
| f) | Discuss various Digital signatures. | [3] |
| g) | Give features of Authentication Header. | [2] |
| h) | Explain IP Security. | [3] |
| i) | How to manage the password? | [2] |
| j) | Discuss cross site scripting vulnerability. | [3] |

PART - B**(50 Marks)**

- | | | |
|------|---|-------|
| 2.a) | Discuss in detail about various types of Security attacks with neat diagrams. | |
| b) | Give a model for Network Security with neat diagram. | [5+5] |

OR

- | | | |
|------|---|-------|
| 3.a) | What is symmetric key cryptography? Discuss its advantages and limitations. | |
| b) | Explain various substitution techniques with suitable examples. | [5+5] |

- | | | |
|------|---|-------|
| 4.a) | Explain DES algorithm with suitable examples. Discuss its advantages and limitations. | |
| b) | What is Elliptic Curve Cryptography (ECC)? Discuss ECC algorithm with neat diagram. | [5+5] |

OR

- | | | |
|------|--|-------|
| 5.a) | Explain RSA algorithm with suitable examples. | |
| b) | Write a short note on RC4. | [5+5] |
| 6.a) | Write a short note on knapsack algorithm. | |
| b) | Give various Hash Functions. Discuss secure hash algorithm with suitable examples. | [5+5] |

OR

- 7.a) Discuss HMAC and CMAC.
b) Write short notes on Kerberos. [5+5]

- 8.a) Write a short note on Pretty Good Privacy.
b) Give IP Security architecture with neat diagram. [5+5]

OR

- 9.a) Write a short note on S/MIME.
b) Discuss in detail encapsulating security payload. [5+5]

- 10.a) What is Intrusion? Discuss Intrusion detection system with neat diagram.
b) Discuss the need of Secure Socket Layer. [5+5]

OR

- 11.a) Write a short note on firewall design principles and types of firewalls.
b) Discuss in detail about secure electronic transaction. [5+5]

---ooOoo---

Code No: 126AQ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, December - 2017****INFORMATION SECURITY****(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) Define Non Repudiation. [2]
- b) Write a short notes on steganography. [3]
- c) Define linear cryptanalysis. [2]
- d) Discuss about Electronic code book mode? [3]
- e) Define Message Authentication Code. [2]
- f) Illustrate about biometric authentication. [3]
- g) What is IP Security? [2]
- h) Discuss about the concept of combining security associations. [3]
- i) What is Firewall? [2]
- j) Write short notes on virtual elections. [3]

PART - B**(50 Marks)**

2. Compare and Contrast between Symmetric and Asymmetric key cryptography. [10]
- OR**
3. Give an example to explain the concept of transposition ciphers in detail. [10]
 4. With a neat diagram explain how encryption and decryption are done using Blowfish algorithm? [10]
- OR**
5. Given two prime numbers $p=5$ and $q=11$, and encryption key $e=7$ derive the decryption key d . Let the message be $x=24$. Perform the encryption and decryption using R.S.A algorithm. [10]
 6. Give a neat sketch to explain the concept of Secured Hash Algorithm (SHA). [10]
- OR**
7. Client machine C wants to communicate with server S. Explain how it can be achieved through Kerberos protocol? [10]

8. How the messages are generated and transmitted in pretty good privacy (PGP) protocol? Explain with clear diagrams. [10]

OR

9. Draw the IP security authentication header and explain the functions of each field. [10]

10. Explain the steps involved in performing Secure Inter-branch Payment Transactions. [10]

OR

11. List the characteristics of a good firewall implementation? How is circuit gateway different from application gateway? [10]

---ooOoo---

Code No: R15A0519

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B. Tech II Semester Regular Examinations, April/May 2018**Information Security****(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) Enumerate the mechanisms implemented for confidentiality? (2M)
- b) Use Caesar cipher with key =15 to encrypt the message “college”? (3M)
- c) Define stream cipher? (2M)
- d) Discuss the design principles of block cipher technique? (3M)
- e) What are the advantages of Key Distribution center? (2M)
- f) Write any two advantages of hashing functions? (3M)
- g) Why does PGP generate a signature before applying compression? (2M)
- h) What is secure socket layer? (3M)
- i) How to manage pass word? (2M)
- j) What is the firewall? (3M)

PART – B**(50 Marks)****SECTION – I**

2. (a) What are the different types of attacks and services? Explain? (4M)
- (b) Explain any three substitution techniques. (6M)

[OR]

3. (a) Write about any two classical crypto systems with suitable examples? (4M)
- (b) Explain about Hill Cipher. Consider the plaintext "paymoremoney" and use the encryption key: (6M)

17 17 5
 K= 21 18 21. Find the cipher text?.
 2 2 19

SECTION – II

4. (a) Discuss in detail about AES algorithm. (6M)
- (b) Explain about the RSA algorithm with example as (4M)
 P=11, q=5, e=3 M=5, d=?

[OR]

5. (a) Describe the key discarding process of DES? (6M)
- (b) What is public key cryptography and when is it preferred? (4M)

SECTION – III

6. (a) Write about HMAC algorithm. What need to be done to speed up HMAC algorithm? (4M)
(b) With a neat flowchart, Explain MD5 processing of a single 512 bit block? (6M)
[OR]
7. (a) Explain the message sequence of Kerberos V4. (5M)
(b) Explain SHA-512 with neat diagram? (5M)

SECTION – IV

8. (a) What is R64 conversion? Why is R64 conversion useful for an e-mail application? (5M)
(b) What are the content types provided by S/MIME? Explain? (5M)
[OR]
9. Explain transport and tunnel mode for AH & ESP (10M)
[OR]

SECTION –V

- 10.(a) Generalize the role of intrusion detection system? Point out the three benefits that can be provided by the intrusion detection system ? (6M)
(b) List out the participants of SET system, and explain in detail? (4M)
[OR]
- 11.(a) Illustrate the three common types of firewalls with diagrams ? (6M)
(b) Is it technically possible to have elections on the Internet? How? What sort of infrastructure would be needed for this? (4M)

Code No: R15A0519**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****III B.Tech II Semester supplementary Examinations, Nov/Dec 2018****Information Security****(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) Define steganography? (2M)
- b) Enumerate key range and key size? (3M)
- c) Illustrate the two basic functions used in encryption algorithms? (2M)
- d) What is the role of s-box in DES? (3M)
- e) What is the difference between message integrity and message authentication? (2M)
- f) Are there any known weaknesses in Kerberos? (3M)
- g) List out the services provided PGP? (2M)
- h) Why does ESP include a padding field? (3M)
- i) Differentiate spyware and virus? (2M)
- j) List the design goals of Firewall? (3M)

PART – B**(50 Marks)****SECTION – I**

2. (a) Explain Hill cipher with an example. (4M)
 - (b) What is mono-alphabetic cipher? How it is different from Caesar cipher? (6M)
- [OR]
3. (a) Briefly explain the security services and mechanisms defined under X800 standard? (4M)
 - (b) Encrypt the word “Semester Result” with the keyword “Examination” using playfair cipher? (6M)

SECTION – II

4. (a) Users A and B use the Diffie- Hellman key exchange technique, a common prime $q=11$ and a primitive root $\alpha=7$. (6M)
 - (i) If user A has private key $X_A=3$. What is A's public key Y_A ?
 - (ii) If user B has private key $X_B=6$. What is B's public key Y_B ?
 - (iii) What is the shared secret key? Also write the algorithm.
 - (b) Describe RSA algorithm. Perform encryption decryption for the following. (4M)
 $P=17, q=7, e=5, n=119, \text{message}="6"$.
- [OR]
5. (a) Briefly explain following modes of operation in block cipher? (6M)
 - (i) Electronic code book and Cipher block chaining.
 - (ii) Cipher feedback mode and output feedback mode.
 - (b) How is expansion permutation function done in DES? (4M)

SECTION – III

6. (a) How MD5 method provide security to the system? Explain with suitable diagram? (5M)
(b) Describe the authentication protocol and list its limitations, how to overcome the limitations ? (5M)

[OR]

7. (a) Explain with the help of an example how a user's certificate is obtained from another certification authority in X.509 scheme? (5M)
(b) Describe the authentication dialog used by Kerberos. (5M)

SECTION – IV

8. (a) How does PGP provide authentication and confidentiality for email services and for file transfer applications? Draw the block diagram and explain the components? (5M)
(b) In S/MIME, how does a receiver find out what cryptographic algorithms the sender has used when receives an S/MIME message? (5M)

[OR]

9. (a) Sketch and analyze the IPSec Document Overview diagram? (4M)
(b) What is transport mode and tunnel mode authentication in IP? Describe how ESP is applied to both these modes? (6M)

[OR]

SECTION – V

- 10.(a) What is the importance of web security? Explain how secure socket layer provides the reliable service? (6M)
(b) Explain the Firewall design principles? (4M)

[OR]

- 11.(a) What is a trusted system? Explain the basic concept of data access control in trusted systems? (6M)
(b) Discuss on the significant types of virus categories? (4M)

Code No: **R15A0519****MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY****(Autonomous Institution – UGC, Govt. of India)****III B.Tech II Semester Regular/supplementary Examinations, April/May 2019****Information Security****(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 an Attack? **[2M]**
- b Distinguish between Active and Passive Attacks **[3M]**
- C What is affine cipher? **[2M]**
- d What are the key principles of security? **[3M]**
- E Write the RSA algorithm **[2M]**
- f Write the Advantages and disadvantages of MD5 Algorithm. **[3M]**
- G Explain the RC4 algorithm. **[2M]**
- h Write the various types of Attacks on Digital Signature. **[3M]**
- I What is cryptography? **[2M]**
- j What Hill Cipher with example. **[3M]**

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

- 2(a) Define Information Security? Describe the critical characteristics of information **[4M]**
- (b) Describe the terms: authentication, integrity, privacy, authorization and non-repudiation **[6M]**

OR

- 3(a) Explain following Feistel cipher, polyalphabetic cipher. **[5M]**
- (b) What are the fundamental differences between symmetric and asymmetric encryption. **[5M]**

SECTION-II

- 4(a) Explain RSA Algorithm. Given the two prime numbers $p=61$ and $q=53$, find N , e , and d . **[5M]**
- (b) What is a weak key used in DES? What is the disadvantage of using a weak key? Briefly explain. **[5M]**

OR

- 5(a) What is message digest (HD)? What are two important properties of good HD algorithm **[5M]**
- (b) Briefly explain how diffusion and confusion are provided in DES using the Sboxes and P-boxes. Why does DES require 16 Rounds? **[5M]**

SECTION-III

- 6 What is the deficiency of distributing the public key certificates by a Certification Authority? How does X.509 overcome this deficiency? Explain the format of X.509 certificate. **[10M]**

OR

- 7(a) What is the purpose of the X.509 standard? **[6M]**
(b) What is the difference between version 4 and version 5 of Kerberos? **[4M]**

SECTION-IV

- 8 Describe Transport tunnel modes used for IPsec AH authentication bringing out their scope relevant to IPV4. **[10M]**

OR

- 9(a) Explain the PGP message generation and reception processes. **[5M]**
(b) Draw the architecture of IPsec. Write the applications of IPsec. **[5M]**

SECTION-V

- 10(a) Distinguish between SSL connection and SSL session. **[5M]**
(b) What is a firewall? List the characteristics of a good firewall implementation. **[5M]**

OR

- 11(a) What is the use of audit record in intrusion detection? **[5M]**
(b) Distinguish between internal and external firewalls. **[5M]**

Code No: R15A0519

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester Supplementary Examinations, December 2019**Information Security****(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 Differentiate between plain text and cipher text [2M]
- b What is difference between substitution techniques and transposition techniques [3M]
- c Discuss the Principles of public key cryptosystems [2M]
- d Describe the RSA algorithm [3M]
- e Understand the knapsack algorithm [2M]
- f Understand the Biometric Authentication [3M]
- g Explain about the IP Security [2M]
- h What is Encapsulating security payload [3M]
- i What are Countermeasures? [2M]
- j Explain about the Firewall design principles, [3M]

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

- 2 Write short notes on [5M]
 - a) encryption and decryption
 - b) symmetric and asymmetric key cryptography [5M]
- 3 Explain about the [5M]
 - a) steganography
 - b) key range and key size [5M]

SECTION-II

- 4 Discuss about the Diffie-Hellman [10M]

OR
- 5 Explain about the Key Distribution [10M]

SECTION-III

- 6 Describe the Public — Key Infrastructure [10M]

OR
- 7 Explain Kerberos in detail. [10M]

SECTION-IV

- 8 Explain about S/MIME [10M]

OR
- 9 Illustrate the Key management [10M]

SECTION-V

- | | | |
|----|---|-------------|
| 10 | a)List out the different Types of firewalls. | [5M] |
| | b)Describe the Secure Inter-branch Payment Transactions | [5M] |
| | OR | |
| 11 | Discuss about the a) Cross site Scripting Vulnerability | [5M] |
| | b)Virtual Elections | [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

R15

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: 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
 - b) Differentiate file and record locking. [5M]

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.
OR

[10M]

- 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]

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]

- OR**

- OR**

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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 (50 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: xxxxxxxx

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

Roll No									
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Time: 3 hours**Max. Marks: 70****Note:**

Question paper Consists of 5 SECTIONS (One SECTION for each UNIT).

Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

SECTION-I

1). Explain various built-in operators and pattern matching modifiers in Perl. [14M]

(OR)

2). Explain the concept of arrays and lists in Perl with an example [14M]

SECTION-II

3. a) List and discuss various data types available in PHP. How to Authenticate a PHP user? [7M]

b) Explain how to create and call a function in PHP. Explain with an example Script [7M]

(OR)

4. Discuss about string interpolation in PHP. [14M]

SECTION-III

5. Discuss about PHP's File-Upload Functions with example in PHP. [14M]

(OR)

6 a) Explain about database connectivity with PHP with suitable examples [7M]

b) Explain how to submit form without a submit button. [7M]

SECTION- IV

7). Describe TCL structure and give a brief note on example of parsing. Explain different input and output commands in TCL? [14M]

(OR)

8). Discuss the event-model of TCL. How to add and delete members of a list in TCL [14M]

SECTION- V

9.a) Explain different ways of passing arguments to functions with examples. [14M]

(OR)

10) Explain the built in functions and methods in python. Explain about Web Application Framework. [14M]

Code No: xxxxxxxx

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

Roll No										
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Time: 3 hours**Max. Marks: 70****Note:**

Question paper Consists of 5 SECTIONS (One SECTION for each UNIT).

Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1). Explain the different types control statements available in Perl. Discuss about them with examples [14M]

(OR)

- 2). Discuss built-in functions available in Perl with an example. [14M]

SECTION-II

3. a) Explain how to create and call a function in PHP. Explain with an example Script [7M]

- b) Discuss various file inclusion statements in PHP. Discuss different Authentication Mechanisms [7M]

(OR)

4. a) Discuss how variables can be automatically type casted to best fit the circumstances? [7M]

- b) Explain about control structures in PHP. [7M]

SECTION-III

5. Discuss various file inclusion statements in PHP. Discuss different Authentication Mechanisms? [14M]

(OR)

6 a) What is a web form in PHP? Explain it with an example. ? [7M]

b) What are the benchmarks that determine the strength of a password in PHP? [7M]

SECTION- IV

7) Write a short note on TK- Visual tool kits. List out some built-in functions in Python? [14M]

(OR)

8. a) List out Tcl commands used for file access [7M]

b) Explain about on the fly command in Tcl with example. [7M]

SECTION- V

9.a) How do you create your own exception? [7M]

b) Write a python program to find numbers divisible by another number ? [7M]

(OR)

10) Explain how to handle an exception in python? Explain briefly. What are the different types of Lists and List methods in python ? [14M]

R17

Code No: xxxxxxxx

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

Roll No										
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Time: 3 hours**Max. Marks: 70****Note:**

Question paper Consists of 5 SECTIONS (One SECTION for each UNIT).

Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1). Explain about accessing, creating and processing of arrays with an example in Perl. [14M]

(OR)

- 2). How can create hashes, manipulate hashes and invert a hash in Perl? [14M]

SECTION-II

3. a) Differentiate between GET and POST methods? [7M]

- b) How to set cookies in PHP? [7M]

(OR)

4. a) What are the features of PHP? [7M]

- b) Explain about Arrays in PHP. [7M]

SECTION-III

5. Discuss the procedure for uploading files using PHP. Discuss about sending Email using PHP. [14M]

(OR)

- 6 a) What is the difference between \$x and \$\$x? [7M]
- b) Write short notes on Mcrypt package and various encryption functions in PHP? [7M]

SECTION- IV

- 7). Describe the list of data structures in TCL with a sample code? [14M]

(OR)

8. a) Explain about name space and trapping errors? [7M]
- b) What are the different string handling functions? [7M]

SECTION- V

9. Describe how data imports from modules into the python programming environment. [14M]

(OR)

- 10) Discuss documenting and testing python code. How to Build Efficient Python Web Systems? [14M]

Code No: xxxxxxxx

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

Roll No										
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Time: 3 hours**Max. Marks: 70****Note:**

Question paper Consists of 5 SECTIONS (One SECTION for each UNIT).

Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

SECTION-I

- 1). Illustrate the characteristics of scripting languages. List the applications of scripting languages?
[14M]

(OR)

2. a) Explain sysread and syswrite functions with an example in Perl. [7M]
b) Write a regular expression syntax to extract your name and print the same [7M]

SECTION-II

3. a) Explain different types of data types in PHP.? [7M]
b) Differentiate between GET and POST methods? [7M]

(OR)

4. a) Discuss about string interpolation in PHP. [7M]
b) Explain how to create and call a function in PHP. Explain with an example Script [7M]

SECTION-III

5. a) Explain the procedure to Decrypt the Data with MCrypt ? [7M]
b) Explain how to submit form without a submit button. [7M]

(OR)

6 a) Explain Hard Coded, File Based methodologies in php? [7M]

b) What is a web form in PHP? Explain it with an example. ? [7M]

SECTION- IV

7). a) Write a Tcl program to find a file by name. ? [7M]

b) List out all Tcl file command options [7M]

(OR)

8. a) Explain uplevel , eval, global Commands in Tcl with example. [7M]

b) Explain the concept of event driven programming. Discuss security issues in Tcl. [7M]

SECTION- V

9. Describe different types of operators supported by python with an example for each [14M]

(OR)

10) What are modules? Explain how data imports from modules into the python programming environment. [14M]
