Code No: 115ED **R13**

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. i) kill() ii) raise() iii) alarm()	[3]
g)	What is a Message queue?	[2]
h)	What is FIFO? Why FIFO's are called as named pipes?	[3]
i)	Explain about shmcntl () 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 sand 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---

R13

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: 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 [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]

Code No: 115ED **R13**

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, 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 **R13**

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 fprint( ) 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: 117CD **R13**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, November/December - 2017
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.

PART - A

(25 Marks)

1.a)	Define data warehouse.	[2]
b)	List the Data warehouse Characteristics.	[3]
c)	How can you go about filling in the missing values for this attribute?	[2]
d)	Why is the word data mining a misnomer?	[3]
e)	Give a note on Closed Frequent Item Set.	[2]
f)	Write the FP-graph algorithm.	[3]
g)	How prediction is different from classification?	[2]
h)	What is rule classification?	[3]
i)	Give a note on k means algorithm.	[2]
j)	List the Key Issues in Hierarchical Clustering.	[3]

PART – B

(50 Marks)

2.a) Make a comparisons between the MOLAP and HOLAP.
b) Discuss the star and snowflake schema in detail with suitable example. [5+5]

OR

3.a) Write the difference between designing a data warehouse and an OLAP cube.
b) Give a brief note on ROLAP. [5+5]

4. Explain concept hierarchy generation for the nominal data. [10]

OR

5.a) Describe the Feature Subset Selection.
b) Illustrate the Data Transformation by Normalization. [5+5]

6. Make a comparison of Apriori and ECLAT algorithms for frequent item set mining in transactional databases. Apply these algorithms to the following data:

TID	LIST OF ITEMS
1	Bread, Milk, Sugar, TeaPowder, Cheese, Tomato
2	Onion, Tomato, Chillies, Sugar, Milk
3	Milk, Cake, Biscuits, Cheese, Onion
4	Chillies, Potato, Milk, Cake, Sugar, Bread
5	Bread, Jam, Mik, Butter, Chilles
6	Butter, Cheese, Paneer, Curd, Milk, Biscuits
7	Onion, Paneer, Chilies, Garlic, Milk
8	Bread, Jam, Cake, Biscuits, Tomato

[10]

OR

7. Briefly explain the Partition Algorithms. [10]

8. Discuss K- Nearest neighbor classification-Algorithm and Characteristics. [10]

OR

9. How does the Naïve Bayesian classification works? Explain in detail. [10]

10.a) Give a brief note on PAM Algorithm.

b) What is the drawback of k-means algorithm? How can we modify the algorithm to diminish that problem? [5+5]

OR

11. What are the different clustering methods? Explain in detail. [10]

--ooOoo--

Code No: 117CD **R13**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2017

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.

Part- A (25 Marks)

1.a)	What is a data mart?	[2]
b)	What is a fact table?	[3]
c)	What is data mining?	[2]
d)	List similarity measures.	[3]
e)	What is maximal frequent itemset?	[2]
f)	How to compute confidence measure for an association rule?	[3]
g)	What is classification?	[2]
h)	Define information gain.	[3]
i)	What is an outlier?	[2]
j)	List the demerits of k-means algorithm.	[3]

Part-B (50 Marks)

2. What are the various components of data warehouse? Explain their functionality in detail. [10]

OR

3. What is the significance of OLAP in data warehouse? Describe OLAP operations with necessary diagram/example. [10]

4. Explain different data mining tasks for knowledge discovery. [10]

OR

5. What is the need of dimensionality reduction? Explain any two techniques for dimensionality reduction. [10]

6. A database has six transactions. Let min-sup = 50% and min-conf = 75%.

TID	List of items
001	Pencil, sharpener, eraser, color papers
002	Color papers, charts, glue sticks
003	Pencil, glue stick, eraser, pen
004	Oil pastels, poster colours, correction tape
005	Whitener, pen , pencil, charts, glue stick
006	Colour pencils, crayons, eraser, pen

Find all frequent item sets using Apriori algorithm. List all the strong association rules. [10]

OR

7.a) What are the advantages of FP-Growth algorithm?
b) Discuss the applications of association analysis. [5+5]

8. Explain decision tree induction algorithm for classifying data tuples and discuss suitable example. [10]

OR

9.a) What are the characteristics of k-nearest neighbor algorithm?
b) How to evaluate the classifier accuracy? [5+5]

10. What is the goal of clustering? How does partitioning around medoids algorithm achieve this goal? [10]

OR

11.a) Differentiate between AGNES and DIANA algorithms.
b) How to access the cluster quality? [5+5]

--ooOoo—

Code No: 117CD **R13**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

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

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.

PART- A

(25 Marks)

1.a)	Define Data ware housing.	[2]
b)	Differentiate OLAP, ROLAP and HOLAP.	[3]
c)	Discuss about subset selection	[2]
d)	Mention any three measures of Similarity.	[3]
e)	Define Association rule mining two step processes.	[2]
f)	Write short note on support and confidence measures.	[3]
g)	Mention types of classifier techniques.	[2]
h)	Define Pre pruning and post pruning.	[3]
i)	Discuss on Agglomerative and Divisive clustering techniques.	[2]
j)	Mention the various types of clustering methods.	[3]

PART-B

(50 Marks)

2. Explain data mining as a step process of knowledge discovery. Mention the Functionalities of Data mining. [10]

OR

3. Differentiate Operational database systems and data warehousing. Explain the star schema and fact constellation schemas. [10]

4. Explain the various Data pre-processing techniques. How data reduction helps in data pre-processing. [10]

OR

5. How can the data cube be efficiently constructed for discovery-driven Exploration? Explain various operations of a Data Cube. [10]

6. How can we mine multilevel Association rules efficiently using concept hierarchies? Explain. Illustrate with an A-priori algorithm for the given dataset below. [10]

TID	List of items
001	milk, dal, sugar, bread
002	Dal, sugar, wheat,jam
003	Milk, bread, curd, paneer
004	Wheat, paneer, dal, sugar
005	Milk, paneer, bread
006	Wheat, dal, paneer, bread

OR

7. Can we design a method that mines the complete set of frequent item sets without candidate generation? If yes, explain with example table mentioned above. [10]

8. Describe the data classification process with a neat diagram. How does the Naive Bayesian classification works? Explain. [10]

OR

9. What is prediction? Explain the various prediction techniques. Explain about Decision tree Induction classification technique. [10]

10. What are outliers? Discuss the methods adopted for outlier detection. [10]

OR

11. State K-means algorithm. Apply k-means algorithm with two iterations to form two clusters by taking the initial cluster centers as subjects 1 and 4. [10]

Subject	A	B
1	1.0	1.0
2	1.5	2.0
3	3.0	4.0
4	5.0	7.0
5	3.5	5.0
6	4.5	5.0
7	3.5	4.5

--ooOoo--

Code No: XXXXX **R 13**

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

11Explain about

a)Statistical-based outlier detection.(5M)

b)Distance-based outlier detection. (5M)

Code No: XXXXX **R 13**

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 **R 13**

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 **R 13**

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 **R 13**

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 **R 13**

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: 117CF **R13**

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]

---ooOoo---

Code No: 117CF **R13**

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 **R13**

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: 58063 **R 13**

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester Model Paper

DESIGN PATTERNS

(Common to Computer Science and 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

1. a) Describe the Subscribe/Notify protocol in MVC model. [2m]
b) Explain the benefits of manipulating objects in terms of interface defined byabstract 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

2. a) Explain the Spelling Checking and Hyphenation in Document Structure.
b) Compare the Glyph and Mono Glyph. [5+5]

OR

3. Explain the Catalog of Design Patterns? [10]

4. Explain the Consequences of Abstract Factory. [10]

OR

5. Explain the Sample Code Of Singleton Pattern? [10]

6. a) Explain Robustiterator & Nulliterator [5+5]
b) Explain the benefits & Drawbacks of Mediator?

OR

7 Explain the TCP connection in state with Suitable code? [10]
8. Explain Policy pattern in Behavioral pattern? [10]

OR

9. Explain Node Visitor in Abstract Syntax Tree? [10]
10. Explain the Implementation of Template Patterns in Strategy? [10]

OR

11. Write short notes on the following. [5+5]
a) Pattern Community
b) Life Cycle of Object Oriented Software

****

Code No: 58063 **R 13**

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester Model Paper

DESIGN PATTERNS

(Common to Computer Science and 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

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

2. a) How to Determine Object Granularity?
b) Explain the Formatting –algorithm in Document Structure? [5+5]

OR

3. Explain the Design Patterns in terms of relationship? [10]

4. Explain the Implementation of Abstract Factory with examples? [10]

OR

5. Explain the Sample Code and Related Pattern of Prototype Pattern? [10]

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

OR

7. Explain about two patterns which providing hooks for Subclass? [10]

8. Should Communication be encapsulated or Distributed-compare Mediator and Observer patterns? [10]

OR

9. Explain state Applicability and Structure? [10]

10. Explain Sample code & related patterns of Memento? [10]

OR

11. Write short notes on the following. [5+5]
a) How the Broad cast communication is possible in Observer.
b) Alexander's Pattern Languages

****

Code No: 58063 **R 13**

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester Model Paper

DESIGN PATTERNS

(Common to Computer Science and 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

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]

PART-B

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]

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]

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]

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

OR

9. Explain Benefits & Drawbacks of Mediator? [10]

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: 58063 **R 13**

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

B.Tech IV Year I Semester Model Paper

DESIGN PATTERNS

(Common to Computer Science and 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

1. a) Explain the Design pattern space in terms of purpose? [2m]
b) Differentiate Inheritance and Composition. [3m]
c) Explain the causes of redesign of Design Patterns? [2m]
d) Explain the step by step procedure of Selecting Design Patterns? [3m]
e) Describe the relationship with Compositor and Composition in Formatting. [2m]
f) Can we Use Abstract Factory for supporting Multiple Window Systems? [3m]
g) Explain the Applicability of Prototype Pattern? [2m]
h) Explain Consequences and Related Pattern of Adapter Pattern? [3m]
i) Describe Reducing client subsystem coupling in Façade? [2m]
j) Explain Template Method collaborations and Known Uses? [3m]

PART-B

2. a) Write a note on How Design Patterns Solve Design Problems .
b) Compare White Box reuse and Black Box reuse. [5+5]

OR

3. Explain the Motivation and Sample code Of Abstract Factory. [10]

4. Explain Structure, Participants, and Consequences of Factory Method. [10]

OR

5. Explain the Window and Window Imp interfaces in Bridge Pattern? [10]

6. a) Explain the Motivation of Composite Patterns with Suitable Examples? [5+5]
b) Explain the "Wrapper" object Structural pattern?

OR

7. Explain the Chain of Responsibility in Behavioral patterns? [10]

8. Explain the consequences and Implementation of Proxypattern?

OR

1. Should communication be encapsulated or distributed .Compare Mediator and Observer patterns? [10]

2. Explain the Node Visitor in abstract Syntax tree ? [10]

OR

3. Write short notes on the following .
a) Document and Learning Aid
b) Alexander's pattern Languages [5+5]

MALLA REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY

Question Bank

(Previous Question Papers
And
Model Question Papers)

Compiled By,
Faculty of Cloud Computing
Department of CSE

Code No: XXXX **R 13**

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?

Code No: XXXX **R 13**

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.

Code No: XXXX **R 13**

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 **R 13**

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 Vitual 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]

--ooOoo--

Code No: 117BN **R13**

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]

---ooOoo---

R13

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---

Code No: R15A0520

R15

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 carriers 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)

****

R15

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 carriers 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)

****

R15

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 carriers 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: R15A0535

R 15

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 your 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

R 15

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 Analysi? [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

R 15

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