Scheme - I

Sample Question Paper

Program Name : **Diploma in Engineeering Group**

Program Code : **CO / CM / CW / IF**

Semester : **Fifth**

Course Title : **Operating System**

22516

Marks : **70** **Time: 3 Hrs.**

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

a) Differentiate between Batch Operating System and Time shared Operating System. (any two points)

b) State any four services of Operating System.

c) Define : Process , Program

d) State two features of preemptive scheduling.

e) Defione following terms

i) Page fault

ii) Segmentation

f) Write syntax of ps command and explain its use with the help of suitable example.

g) List any four file attributes.

Q.2) Attempt any THREE of the following. **12 Marks**

a) Explain dual modes of operations of an Operating system.

b) Describe essential activities done by an Operating System for protection and sharing.

c) State what is interprocess communication and explain its advantages..

d) Discribe different scheduling criteria.

Q.3) Attempt any THREE of the following. **12 Marks**

a) Define PCB. List information contained in PCB and explain any two .

b) Define deadlock and state the necessary conditions for deadlock..

c) Explain following terms with respect to Memory management :

I. Compaction

II. Swapping.

d) Enlist different file allocation methods and explain any two.

Q.4) Attempt any THREE of the following. **12 Marks**

a) Compare between Windows and LINUX Operating System.(any four points)

b) Write any four system calls related to device management.

c) Compare between short term and long term scheduler.(any four points)
d) Compare FCFS and SJF Scheduling algorithm with any four points.
e) Describe contiguous memory allocation done by Operating System with he help of suitable example.

Q.5) Attempt any TWO of the following. 12 Marks

a) Write two uses of following Operating System tools :
   i. Performance Monitor
   ii. Task scheduler
   iii. User Management
b) Write the output of the following commands.
   a. Kill 9042018
   b. Ps 07121975
   c. Sleep 05
c) Given a page reference reference string(arrival) with four page frames, calculate the page faults with FIFO and LRU page replacement algorithms respectively :
   12, 3, 4, 5, 1, 2, 5, 1, 2, 3, 4, 5, 1,6,7,8,7,8,9,7,8,9,5,4,4,5,4,2.

Q.6) Attempt any TWO of the following. 12 Marks

a) Solve given problem by Using FCFS to calculate average waiting time and turnaround time.

Process	Arrival time	Burst time
P1	0	7
P2	1	4
P3	2	9
P4	3	6
P5	4	8

b) Compare between bitmap and linked list free space management techniques.(any six points)
c) Construct and explain directory structure of a file system in terms of single level, two level and tree structure.

Scheme - I

Sample Test Paper - I

Program Name : **Diploma in Engineeering Group**
Program Code : **CO / CM / CW / IF**
Semester : **Fifth**
Course Title : **Operating System**

22516

Marks : **20** **Time: 1 Hour**

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q1. Attempt Any FOUR **08 Marks**

a) Differentiate between multiprogramming and multiprocessing. (Any 2 Points)

b) Draw Layered structure of operating system.

c) List any four types of OS.

d) State any two activities performed by file management component of an Operating Systems

e) List any four operating system services.

f) Draw process state trainsition diagram .

Q2. Attempt any THREE **12 Marks**

a) Explain real time system. List its any four application.

b) What is the purpose of the system calls? State any two calls with its functions.

c) Describe process control block with the help of suitable diagram.

d) Differentiate between Long term scheduler and Short term scheduler w.r.t. following points:

i) Selection of job

ii) Frequency of execution

iii) Speed

iv) Accessing which part of system

Scheme - I

Sample Test Paper - II

Program Name : **Diploma in Engineeering Group**
Program Code : **CO / CM / CW / IF**
Semester : **Fifth**
Course Title : **Operating System**

22516

Marks : **20** **Time: 1 Hour**

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q1. Attempt Any FOUR **08 Marks**

a) Describe CPU burst cycle and I/O burst cycle.

b) What is deadlock? Give characteristics of deadlock.

c) Describe Multilevel queue scheduling with labelled diagram.

d) Define the term swapping.

e) Explain different process scheduling criteria.

f) List the directory structures.

Q2. Attempt any THREE **12 Marks**

a) With suitable example describe how to use bit map method for free space management.

b) State the syntax and use of following process related commands :
i. bg
ii kill

c) Describe working of contiguous file allocation method.

d) Calculate average waiting time with Round Robin for following processes in memory.(Time Slice = 4ms)

Process	Burst time
P1	3
P2	5
P3	7
P4	4

Scheme- I

Sample Question Paper

Program Name : **Diploma in Computer Engineering Group**
Program Code : **CO / CM /CW**
Semester : **Fifth**
Course Title : **Software Testing**
Marks : **70** **Time: 3 Hrs.**

22518

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

a) Define software Quality Assurance and software Quality Control.

b) State any two example of Security testing.

c) Enlist any four the benefits of Test Plan.

d) State any four basic principles of writing good test cases.

e) Enlist different types of defect classification.

f) Write any four limitations of Manual Testing.

g) Define following terms-Failure, Error, Defect and Bug.

Q.2) Attempt any THREE of the following. **12 Marks**

a) Describe the roles and responsibilities of a Test Leader.

b) Differentiate between Drivers and Stub (any four points).

c) Describe different types of attributes of a Test Plan.

d) State the Advantages and Disadvantages of using testing tools.

Q.3) Attempt any THREE of the following. **12 Marks**

a) State process of Black box testing with labeled diagram? List any four techniques of black box testing.

b) Describe the Test Case Specification and list its parameters.

c) Draw Defect Management Process**.** State the working of each phase.

d) State any four points of comparison between Static analysis tools and Dynamic analysis tools.

Q.4) Attempt any THREE of the following. 12 Marks

a) Describe the Integration Testing.

b) State the testing approaches that are considered during Client- Server Testing.

c) Explain the Test Management with Test Infrastructure management and Test People Management.

d) Enlist and describe criteria for Selecting Testing Tools with its description.

e) Explain following concepts related to Web Application :

(1) Load testing

(2) Stress testing.

Q.5) Attempt any TWO of the following. 12 Marks

a) Design test cases for the data filed from Admission form of your institute (Data filed are Name, SSC percentage, Adhar no, Address, mobile no)

b) With respect to GUI testing write the test cases for Amazon login form.

c) Elaborate the concept of Software Metrics? Describe Product and Process metrics with suitable example.

Q.6) Attempt any TWO of the following. 12 Marks

a) Design test cases for MSBTE Online Exam form filling.(any valid six test cases)

b) Prepare a Test Plan along with the Test Cases for the MS Word option ‘Save As’. Test Cases should be at least six.

c) Design any three test cases for railway reservation form and prepare defect report of it.

Scheme- I

Sample Test Paper - I

Program Name : **Diploma in Computer Engineering Group**
Program Code : **CO / CM /CW**
Semester : **Fifth**
Course Title : **Software Testing**
Marks : **20** **Time: 1 Hour**

22518

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) List the objectives of software testing.

b) Design any four boundary value test cases for textbox which accept numbers from 1-999.

c) Define Static testing and Dynamic testing.

d) Describe the need of stub and driver in Unit testing?

e) Define Load testing and Stress testing.

f) Define Unit Testing?

Q.2 Attempt any THREE. **12 Marks**

a) Differentiate between Verification and Validation.

b) Apply equivalence partitioning on application which display result on basis of percentage obtained in exam.

c) Explain Top Down integration testing.

d) With respect to GUI testing, write any four test cases for Flipchart login form.

e) Explain need of Regression Testing.

Scheme- I

Sample Test Paper - II

Program Name : **Diploma in Computer Engineering Group**
Program Code : **CO / CM /CW**
Semester : **Fifth**
Course Title : **Software Testing**
Marks : **20**

22518

Time: 1 Hour

Instructions:
(1) All questions are compulsory.
(2) Illustrate your answers with sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) Define Test Plan?

b) List basic steps of Fundamental test Process.

c) Enlist different types of defect classification.

d) State five general activities of defect prevention.

e) List the benefits of automation testing.

f) Define software matrix and measurement.

Q.2 Attempt any THREE. **12 Marks**

a) Prepare test plan along with test cases for notepad option copy-paste.

b) Design any four Test cases for User Login Form.

c) Design any two test cases for simple calculator application and prepare defect report.

d) Differentiate between manual testing & automation testing.

e) Enlist factors considered for selecting a testing tool for test automation.

Scheme – I

Question Paper Profile

Program Name : **Diploma in Engineeering Group**

Program Code : **CO / CM / CW / IF**

Semester : **Fifth**

Course Title : **Clint Side Scripting Language (Elective)**

22519

Marks : **70** **Time: 3 Hrs.**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

a) State the use of dot syntax in JavaScript with the help of suitable example.

b) List and explain Logical operators in JavaScript.

c) Write a JavaScript that identifies a running browser.

d) Write a JavaScript that initializes an array called “Fruits” with names of five fruits. The script then displays the array in a message box.

e) Give syntax of and explain the use of “with” statement/clause in JavaScript using suitable example.

f) Enlist and explain the use of any two Intrinsic JavaScript functions.

g) State and explain what is a session cookie ?

Q.2) Attempt any THREE of the following. **12 Marks**

a) Write syntax of and explain prompt method in JavaScript with the help of suitable example.

b) Write a JavaScript program which compute, the average marks of the following students Then, this average is used to determine the corresponding grade.

Student Name	Marks
Advait	80
Anay	77
Manyata	88
Saanvi	95
Saachi	68

The grades are computed as follows :

Range	Grade
<60	F
<70	D
<80	C
<90	B
<100	A

c) Write a JavaScript that displays all properties of window object. Explain the code .

d) Write a JavaScript function that checks whether a passed string is palindrome or not.

Q.3) Attempt any THREE of the following. 12 Marks

a) Differentiate between concat() and join() methods of array object.

b) Write a JavaScript function to count the number of vowels in a given string.

c) Write a JavaScript that find and displays number of duplicate values in an array.

d) Write a function that prompts the user for a color and uses what they select to set the background color of the new webpage opened .

Q.4) Attempt any THREE of the following. 12 Marks

a) State what is a regular expression? Explain its meaning with the help of a suitable example.

b) Write a webpage that accepts Username and adharcard as input texts. When the user enters adhaarcard number ,the JavaScript validates card number and diplays whether card number is valid or not. (Assume valid adhaar card format to be nnnn.nnnn.nnnn or nnnn-nnnn-nnnn).

c) Write the syntax of and explain use of following methods of JavaScript Timing Event.

   a. setTimeout()
   b. setInterval()

d) Develop JavaScript to convert the given character to Unicode and vice versa.

e) List ways of Protecting your webpage and describe any one of them.

Q.5) Attempt any TWO of the following. 12 Marks

a) Write HTML Script that displays textboxes for accepting Name, middlename, Surname of the user and a Submit button. Write proper JavaScript such that when the user clicks on submit button

   i) all texboxes must get disabled and change the color to “RED”. and with respective labels.

ii) Constructs the mailID as <name>.<surname>@msbte.com and displays mail ID as message. (Ex. If user enters Rajni as name and Pathak as surname mailID will be constructed as rajni.pathak@msbte.com) .

b) Write a webpage that diplays a form that contains an input for Username and password. User is prompted to enter the input and password and password becomes value of the cookie. Write The JavaScript function for storing the cookie . It gets executed when the password changes.

c) Write a script for creating following frame structure :

<table>
<tr><td colspan="2">FRAME1</td></tr>
<tr><td>FRAME2
• FRUITS
• FLOWERS
• CITIES</td><td>FRAME3</td></tr>
</table>

Fruits, Flowers and Cities are links to the webpage fruits.html, flowers.html, cities.html respectively. When these links are clicked corresponding data appears in "FRAME3".

Q.6) Attempt any TWO of the following. 12 Marks

a) Write HTML Script that displays dropdownlist containing options NewDelhi, Mumbai, Bangalore. Write proper JavaScript such that when the user selects any options corresponding description of about 20 words and image of the city appear in table which appears below on the same page.

b) Develop a JavaScript Program to Create Rotating Banner Ads with URL Links.

c) Create a slideshow with the group of four images, also simulate the next and previous transition between slides in your JavaScript.

Scheme – I

Sample Test Paper - I

Program Name : **Diploma in Engineeering Group**

Program Code : **CO / CM / CW / IF**

Semester : **Fifth**

Course Title : **Clint Side Scripting Language (Elective)**

22519

Marks : **20** **Time: 1 Hour**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FOUR. **08 Marks**

a) Describe all the tokens of the following statements :
   i. document.bgColor
   ii. document.write()

b) Differentiate between prompt() and alert() methods.

c) State use of getters and setters

d) State and explain any two properties of array object

e) Write a JavaScript that displays first 20 even numbers on the document window.

Q.2) Attempt any THREE. **12 Marks**

a) Write a program to print sum of even numbers between 1 to 100 using for loop.

b) Write a JavaScript function to insert a string within a string at a particular position

c) Generate college Admission form using html form tag

d) State the use of following methods.
   i. charCodeAt()
   ii. fromCharCode()

Scheme – I

Sample Test Paper - II

Program Name : **Diploma in Engineeering Group**

Program Code : **CO / CM / CW / IF**

Semester : **Fifth**

Course Title : **Clint Side Scripting Language (Elective)**

22519

Marks : **20** **Time: 1 Hour**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FOUR. **08 Marks**

a) Design the frameset tag for following frame layout :

FRAME1
FRAME2
FRAME3

b) State the method to put message in web browser status bar?

c) Construct regular expression for validating the phone number in following format only :

(nnn)-nnnn-nnnn OR nnn.nnnn.nnnn

Q.2) Attempt any THREE. **12 Marks**

a) Write a JavaScript that creates a persistent cookies of Itemnames. Write appropriate HTML script for the same.

b) Write a JavaScript function to check whether a given value is valid IP value or not

c) Write a JavaScript program to create rollover effect for three images.

d) Write a JavaScript program that create a scrolling text on the status line of a window.

Scheme – I

Sample Question Paper

Program Name : Diploma in Computer Engineering Group

Program Code : CO / CM/ IF / CW

22520

Semester : Fifth

Course Title : Advanced Computer Network

Marks : 70 **Time: 3 Hrs.**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1) Attempt any FIVE of the following. **10 Marks**

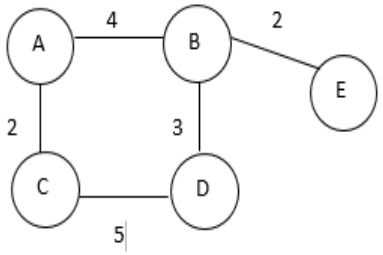
a) Draw and label sketch of IPv6 packet format.
b) State the importance of IPv6 over IPv4?
c) Distinguish between SMTP and POP3 protocols.
d) State the use of six flags in TCP header.
e) Explain the concept of connection oriented service.
f) Stateb the use of SSH.
g) State the concept of fragmentation in IPv4?

Q.2) Attempt any THREE of the following. **12 Marks**

a) Describe flow control under SCTP.
b) Explain ICMP protocol? Describe the header format of ICMP
c) Describe SMTP with suitable diagram.
d) For the block of IPv4 addresses given below build Subnet Mask, Broadcast Address and Number of Hosts possible.
   i. 10.0.199.237/22
   ii. 192.168.14.87/26

Q.3) Attempt any THREE of the following. **12 Marks**

a) Describe the path vector routing algorithm.
b) Distinguish between RIP and OSPF routing protocol.
c) Describe the Architecture of E-mail system using four scenario.
d) Use Bellman-Fort algorithm to find the shortest distance for all nodes in the graph.



Q.4) Attempt any THREE of the following. 12 Marks

a) Construct a diagram to show the application of cookies in a scenario in which the server uses cookies for advertisement.
b) List Intra domain multicast protocols? Explain any one in detail.
c) Describe the HTTP Response Message format.
d) Compare TCP and UDP with any four points.
e) Explain the working of TELNET

Q.5) Attempt any TWO of the following. 12 Marks

a) Explain association establishment process in SCTP.
b) State the need for:
    1) sequence control
    2) error control
    3) flow control.
   Under Transport Layer
c) Explain the process of Transition from IPV4 to IPV6 for a network

Q.6) Attempt any TWO of the following. 12 Marks

a) With a suitable example explain Distance Vector Routing algorithm. What are the serious drawbacks of Distance Vector Routing algorithm?
b) For the IP Addresses given below:
    1) Identify the classes to which the following IP numbers belong to
    2) Identify network Address section
    3) Identify Host Address section
    4) Calculate number of hosts that can be assigned with each network
    i. 122.34.45.133 ii. 12.12.12.12
    iii. 192.0.233.26 iv. 126.123.16.87
c) Describe Email Security over non- secure channel.

Scheme – I

Sample Test Paper - I

Program Name : **Diploma in Computer Engineering Group**

Program Code : **CO / CM/ IF / CW**

Semester : **Fifth**

22520

Course Title : **Advanced Computer Network**

Marks : **20** **Time: 1 Hour.**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) State why IPv4 is called connectionless protocol.
b) Describe different classes of IPv4 addresses?
c) Describe the features of IPv6?
d) Describe is the need for Network address translation?
e) List different routing algorithms.
f) Distinguish between Unicast, Multicast and broadcast.

Q.2 Attempt any THREE. **12 Marks**

a) Compare classful and classless addressing?
b) Describe Link State Routing with suitable example.
c) Explain the process of Transition from IPV4 to IPV6 for a network
d) For a given IP address 172.16.10.22 and mask 255.255.255.240, find the following: Subnet mask, broadcast address and valid range of IP addresses in this network.
e) Explain Intra domain and Inter domain routing? Explain any one routing protocol belonging to Intra domain routing.

.

Scheme – I

Sample Test Paper - II

Program Name : Diploma in Computer Engineering Group

Program Code : CO / CM/ IF / CW

22520

Semester : Fifth

Course Title : Advanced Computer Network

Marks : 20 **Time: 1 Hour.**

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) State different applications of UDP.
b) Explain the working principle of World Wide Web?
c) Define? List different types of MIME
d) Compare FTP and TFTP file transfer protocols.(Any two points)
e) List Transport layer protocols.
f) The following is a dump of a UDP header in hexadecimal format
0045DF0000580000
i. what is the source port number?
ii. what is the total length of the user datagram?

Q.2 Attempt any THREE. **12 Marks**

a) Explain the concept of TCP congestion control mechanism.
b) Explain state transition diagram of TCP.
c) Compare POP3 and IMAP mail protocol on the basis of function, speed, download and use.
d) Describe packet format of SCTP with neat sketch?
e) Describe the Architecture of E-mail system using four scenario?

Scheme- I

Sample Question Paper

Program Name : **Computer Engineering Program Group**
Program Code : **CO/CM/CW**
Semester : **Fifth**
Course Title : **Advanced Database Management System**
Marks : **70** **Time: 3 Hrs.**

22521

Instructions:

(1) All questions are compulsory.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data if necessary.
(5) Preferably, write the answers in sequential order.

Q1) Attempt any FIVE of the following. **10 Marks**

a) State the use of concurrency control (any two)
b) Enlist any four types of join
c) Write any four benefits of NoSQL
d) Enlist any four application of Data Mining
e) Define Big Data.
f) Give any four characteristics of XML
g) State the use of Single Purpose Aggregation(any two)

Q2) Attempt any THREE of the following. **12 Marks**

a) Explain Client Server database model with diagram
b) Compare between Structured and Unstructured data(any four)
c) explain With example any four operation with MongoDB
d) Explain structured types and inheritance in SQL.

Q3) Attempt any THREE of the following. **12 Marks**

a) Compare between OLTP vs OLAP
b) Compare SQL and NoSQL database system(any four points)
c) Explain steps used to perform data analysis in R programming
d) Draw and explain Data Warehousing Lifecycle

Q4)Attempt any THREE of the following. **12 Marks**

a) Compare between parallel and Distributed database (any four points)
b) List and explain any four basic datatype of MongoDB
c) Describe data synchronization in mobile database.

d) Explain Oracle Cloud technology.
e) Describe the features of BI components

Q5) Attempt any TWO of the following. 12 Marks

a) Write query to execute find() function on Collection: Inventory
i) To display all documents in the collection
ii) To display all documents where the status equals "D"
iii) To display all documents where status equals either "A"or "D":
iv) To display all documents where the status equals "A" **and** qty is less than 30:
v) To display all documents where the status equals "A" **or** qty is less than 30:
vi) To display all documents where the status equals "A" **and** *either* qty is less than 30 *or* item starts with the character p:

b) Explain array and multiset types in sql with example

c) Explain object and object identity. Write SQL query for the following table

Class: student
Name Age GPA Subject Gender
Store Print Update

Q6) Attempt any TWO of the following. 12 Marks

a) Define lock. Explain two phase locking protocol with example

b) Consider the tables given below:
Employees(employee_id,first_name,last_name,job_id,salary,department_d)
Departments(department_id,department_name,location_id)
i) Find all employees who locate in the location with the id 1700
ii) Finds all employees who salaries are greater than the average salary of all employees

c) Consider following input data for your Map Reduce Program

```
Welcome to Hadoop Class
Hadoop is good
Hadoop is bad
```

Draw Map Reduce Architecture and explain its phases.

Scheme- I

Sample Test Paper - I

Program Name : **Computer Engineering Program Group**
Program Code : **CO/CM/CW**
Semester : **Fifth**
Course Title : **Advanced Database Management System**
Marks : **20** **Time: 1 Hour**

22521

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) State the use of concurrency control

b) Give the benefits of Distributed Database.

c) State the Use of table Inheritance

d) State the features of R- programming(any two)

e) Give the difference between Structured vs unstructured data.

f) State the use of NoSQL database system

Q.2 Attempt any THREE. **12 Marks**

a) Draw and Explain Distributed database system architecture.

b) Differentiate between Parallel and distributed database system

c) Write Sql queries using Table inheritance

d) Write a query using Aggregate methods.

Scheme- I

Sample Test Paper - II

Program Name : **Computer Engineering Program Group**

Program Code : **CO/CM/CW**

22521

Semester : **Fifth**

Course Title : **Advanced Database Management System**

Marks : **20** **Time: 1 Hour**

Instructions:

(1) All questions are compulsory.

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data if necessary.

(5) Preferably, write the answers in sequential order.

Q.1 Attempt any FOUR. **08 Marks**

a) State the Use og mongoDBShell

b) Differentiate between SQL And NoSQL databases.

c) State the use of Single Purpose Aggregation

d) Define Data Mart and Meta Data.

e) State difference between Data and Big Data (any Two)

f) State the types of machine Learning Approches.

Q.2 Attempt any THREE. **12 Marks**

a) Explain Basic Operation of MongoDB Shell

b) Draw and Explain Architecture of Data Warehouse.

c) Draw and Explain Hadoop Architecture.

d) Explain Use of Cloudera.