

MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)
M.C.A. Sem-II : WINTER- 2022
SUBJECT : OBJECT ORIENTED SOFTWARE ENGINEERING

Day : Tuesday

Time : 02:00 PM-05:00 PM

Date : 29-11-2022

W-22729-2022

Max. Marks : 60

N.B.

- 1) **Q.No. 4** from Section-I is **COMPULSORY**.
- 2) Attempt **ANY TWO** questions from Q.No. 1 to Q. No. 3 in Section – I.
- 3) Attempt **ANY TWO** questions from Q.No. 5 to Q. No. 7 in Section – II.
- 4) Figures to the **RIGHT** indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer book.
- 6) Draw neat and labeled diagram **WHEREVER** necessary.

SECTION – I

- Q.1** a) 'The Unified Software Development process is said to be iterative and incremental.' Explain the statement. (06)
b) Explain different types of requirements. How they are captured in Requirement Modeling? (06)
- Q.2** a) Why and when to draw Component Diagram? Explain various symbols used in it. (06)
b) What is Use Case? Explain relationships used in Use Case Diagram. (06)
- Q.3** a) How Deployment Diagrams help to represent architecture? Explain. (06)
b) Explain following concepts in Activity Diagram with appropriate example. (06)
i) Swimlanes ii) Fork iii) Joins iv) Activity
- Q.4** Write short notes on **ANY THREE** of the following : (12)
a) Modeling Principles
b) Advanced Structural Modeling
c) Object Oriented Concepts
d) Need of Interaction Modeling
e) Object Diagrams

SECTION – II

- Q.5** Draw System Sequence Diagram for Online Examination System. (12)
- Q.6** Draw Class Diagram for Health Insurance Policy. The policy should cover job based coverage, self-coverage and benefits. (12)
- Q.7** Draw Package Diagram for Online Shopping System. (12)

MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)

M.C.A. Sem-II : WINTER- 2022

SUBJECT : CLOUD COMPUTING CONCEPTS

Day : Thursday

Time : 02:00 PM-05:00 PM

Date : 1/12/2022

W-22730-2022

Max. Marks : 60

N.B.

- 1) Attempt **ANY TWO** questions from Question No. 1, 2, 3. Question Number **FOUR** is **COMPULSORY** from section – I. Solve **ANY TWO** questions from Section- II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SAME** answer book.

SECTION-I

- Q. 1** a) What are the types of cloud computing? (06)
- b) Explain difference between Cloud computing Vs Grid computing. (06)
- Q. 2** a) What are the benefits of cloud computing? (06)
- b) Explain two types of hypervisors with diagram. (06)
- Q. 3** a) What is concept of service oriented Architecture (SOA)? (06)
- b) What are properties of services? (06)
- Q. 4** Write short Notes on **ANY THREE** of the following : (12)
- a) Elements of service oriented Architecture (SOA)
- b) WSDL, UDDI and SOAP technology
- c) Performance and scalability of services
- d) Development environment of Google cloud.

SECTION-II

- Q. 5** Explain design principles of service oriented Architecture (SOA) while its generation. (12)
- Q. 6** a) Explain basic service oriented Architecture (SOA) operations. (06)
- b) Explain service oriented Architecture (SOA) message (06)
- Q. 7** a) Draw Web service Deployments architecture and explain. (06)
- b) What are the Google cloud platform service (06)

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MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)

M.C.A. Sem-II : WINTER- 2022

SUBJECT : DATA STRUCTURES USING PYTHON

Day : Saturday

Time : 02:00 PM-05:00 PM

Date : 3/12/2022

W-22731-2022

Max. Marks : 60

N.B.:

- 1) **Q. No. 4 is COMPULSORY.**
- 2) Attempt any **TWO** questions from **Q. No. 1, 2 and 3.**
- 3) Attempt any **TWO** questions from **Q. No. 5, 6 and 7.**
- 4) Figures to the right indicate **FULL** marks.
- 5) Answer to both the sections should be written in **SAME** answer book.
- 6) Draw neat labelled diagrams **WHEREVER** necessary.

SECTION-I

- Q.1** a) Explain if –else statement with example. (06)
b) Explain def with example. (06)
- Q.2** a) Explain Dictionaries with example. (06)
b) Explain Exception Handling. (06)
- Q.3** a) What is ADT? Give examples. (06)
b) Explain different applications of Linked List. (06)
- Q.4** Write short notes on any **THREE** of the following: (12)
a) In - order Tree traversal
b) Arrays
c) Big- Oh notation
d) Arithmetic Operators
e) Python

SECTION -II

- Q.5** Write a program in Python to search 79 value from a given list using Binary Search technique. (12)
11, 55, 67, 78, 79, 83, 90, 92, 95, 99.
- Q.6** a) Explain Stack as an ADT. (06)
b) Explain different Data Types in Python. (06)
- Q.7** a) Explain different variable scopes with example. (06)
b) Explain Binary Search Tree. (06)

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MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)

M.C.A. Sem-II : WINTER- 2022

SUBJECT : DATA WAREHOUSING & DATA MINING

Day : Monday

Time : 02:00 PM-05:00 PM

Date : 5/12/2022

W-22732-2022

Max. Marks : 60

N.B.

- 1) Q. No. 4 is **COMPULSORY**.
- 2) Answer any **TWO** questions from Q. No. 1, 2, 3 in Section – I.
- 3) Answer any **TWO** questions from Q. No. 5, 6, 7 in Section – II.
- 4) Figures to the right indicate **FULL** marks.
- 5) Answers to both the sections should be written in **SAME** answer books.
- 6) Draw a neat and labeled diagram **WHEREVER** necessary.

SECTION - I

- Q.1** Explain applications of Data mining in the Retail industry. (12)
- Q.2** What is Data Warehousing? Explain the architecture of Data Warehouse (12)
with a neat labelled diagram.
- Q.3** What is Association rule Mining? Explain the concept of Market Basket (12)
analysis with an example.
- Q.4** Write short notes on any **THREE** of the following: (12)
- a) Outlier analysis
 - b) Data characterization and discrimination
 - c) Attribute subset selection
 - d) Business Intelligence
 - e) Relational databases

SECTION - II

- Q.5** What is mean by Data Reduction? Discuss any two Data Reduction (12)
Strategies for obtaining reduced data representation.
- Q.6** What is Cluster Analysis? Explain Partitioning methods of Cluster Analysis. (12)
- Q.7** How Regression Analysis is important for Prediction? Explain with an (12)
example.

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