

M.C.A (Sem – IV)
Java Programming
April - 2015

M.C.A.(Sem - IV)

April - 2015

Q.P. Code : 19338

(3 Hours)

[Total Marks : 100

- N.B. :** (1) Question No. 1 is **compulsory**.
(2) Attempt any **four** questions out of the remaining questions 2 to 7.
(3) Answers to **sub questions** should be answered **together**.

1. (a) Explain features of Java Language. 10
(b) Explain the following :
 - (i) Data types supported in java. 10
 - (ii) Write a java program by passing command line argument to find if the number is prime or not.
2. (a) What is wrapper class in Java. Write a Java program using all the wrapper classes supported in Java. 10
(b) What is serialization and desrialization. Write a program to implement it in Java. 10
3. (a) What is package ? Write a java program to create package with name PK123 with two classes each having one member function in it. 10
(b) What is multithreading in Java. Write a program to implement try, catch, throw and throws. 10
4. (a) Explain life cycle of Applet with suitable diagram. Write a Applet using atleast 05 (five) 2D graphics methods. 10
(b) Explain static keyword use in java. Write a program to demonstrate static keyword use. 10
5. (a) What is Inner Class in Java. Write a program to implement inner classes in java. 10
(b) Explain concept of abstract class in java through suitable example. 10
6. (a) What are layout managers in java. Explain with suitable example. 10
(b) Explain use of super and this keyword with a suitable example. 10
7. Write a short note on (**any four**) 20
 - (a) Event Handling in Java
 - (b) JDBC architecture
 - (c) Input stream classes
 - (d) Thread Synchronization
 - (e) Interface in Java

M.C.A (Sem – IV)
Object Oriented Modeling and
Design Using UML
April - 2015

QP Code : 19344

(3 Hours)
M.C.A.(Sem - IV)

[Total Marks: 100] April - 2015

- N. B. 1) Q.1 is compulsory
2) Attempt any 4 question from remaining 6 questions

- 1 A Online shopping cart is a system used for buying products over internet. Any customer can search or browse for the product. Searching can be done by name of the product or brand name. However customer has to register before buying the product. Facility of the cart is provided in which the customer can add products before buying. Payment can be done through credit card or cash on delivery. 10
- Draw a use case diagram for above case study. Draw Activity diagram for buying Product.
- B Draw a state chart diagram for dialling a telephone number 10
- 2 A Write a short note on coupling. Explain basic forms of coupling. 10
- B Explain bottom up approach for software system design with suitable example 10
- 3 A Explain Component Diagram with suitable example. 10
- B Explain Logical Architecture with Example. 10
- 4 A Explain Aggregation and Composition with suitable example. 10
- B Write a short note on developing class diagram using abstraction approach. 10
- 5 A Draw state diagram for fully automatic washing machine where machine can restore history state. 10
- B Write a short note on Activity diagram with example. 10
- 6 A What is composite state and parallel state? Explain with example. 10
- B Explain Sequence diagram. Differentiate between sequence diagram and collaboration diagram. 10
- 7 Write short notes on Following (Any Four) 20
1. <<extend>> and <<uses>>
 2. Specialisation
 3. Generalisation
 4. Qualified Association
 5. Swimlanes

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LX-Con. : 10279-15.

M.C.A (Sem – IV)
Network Security
April - 2015

M.C.A.(Sem - IV)

April - 2015

QP Code : 19341

(3 Hours) Total Marks: 100

Note

- i. Q1. is compulsory
- ii. Answer any four from Q2 – Q7
- iii. Figures to right indicate marks
- iv. Answers to the same questions should be answered together

- Q 1. A) Distinguish between symmetric and asymmetric cryptography. [10]
- B) Explain Different types of firewalls [10]
- Q 2. A) What is PKI? Explain components of PKI [10]
- B) What is Kerberos? How is Kerberos V5 different from V4? [10]
- Q 3. A) Explain mutual authentication and reflex attack with help of diagram. suggest one method for fixing it. [10]
- B) What is man in middle attack? Explain with the help of an example [10]
- Q 4. A) Explain One and two way public key authentication [10]
- B) Discuss Secure Socket Layer in e-commerce [10]
- Q 5. A) Explain various security principles with example [10]
- B) Explain the security mechanism used in electronic transaction [10]
- Q 6. A) Explain DES algorithm with reference to its overview and DES round [10]
- B) Distinguish between ECB and CBC modes. [10]
- Q 7. Write Short Notes(Any Four) [20]
- a) Discuss Viruses and Intrusion b) Smart Card
- c) Digital Signature d) Biometric
- e) e-mail Security

M.C.A (Sem – IV)
Advance Database Techniques
April - 2015

M.C.A.(Sem - IV)

QP Code : 19346

April - 2015

(3 hours)

Total marks:100

Note:

1. Q1 is compulsory
2. Attempt any four from remaining six questions

- Q1: (a) Write short note on the following (any two):
- i. Snowflake schema 10
 - ii. Metadata
 - iii. Data Mart
- (b) Explain the difference between (any two):
- i. OLTP and OLAP 10
 - ii. Synchronous and Asynchronous replication
 - iii. RDBMS vs ORDBMS
- Q2: (a) Explain two phase commit along with its advantages and disadvantages. 10
- (b) What is Association rule mining? Explain the application of association rule mining with an example. 10
- Q3: (a) What are the components of decision tree? Describe the steps involved in construction of a decision tree. 10
- (b) Explain Bell-LaPadula model security implementation. 10
- Q4: (a) Explain the architecture of parallel databases. 10
- (b) Describe the join operations used in parallel databases. 10
- Q5: (a) Explain concurrency control and recovery in Distributed database management system. 10
- (b) Explain the relationship of data warehouse with ERP and CRM. 10
- Q6: (a) Explain ETL process in data warehousing. 10
- (b) Describe the challenges associated with the implementation of ORDBMS with example. 10
- Q7: Write short notes on any four of the following: 20
- i. Star schema
 - ii. Data Mining
 - iii. OODBMS
 - iv. Neural networks
 - v. Data dictionary

LX-Con. : 10613-15.

M.C.A (Sem – IV)
Elective I : Customer
Relationship Management
April - 2015

M.C.A.(Sem - IV)

April - 2015

QP Code : 19355

Max. Marks 100

Time: 3hrs

- Note :- i) Question No. 1 is compulsory**
ii) Solve any four questions from Q.No. 2 to Q. No. 7
iii) All Questions carries equals 20 marks

Q1. A). Discuss various EMA components. (10 Marks)
B) What is ASP. What are the advantages and disadvantages in implementing the ASP (10 Marks)

Q2.A) Write a case study on use of CRM tools in Mobile Banking and it's impact on deciding strategies. (10 Marks)
B) Discuss in details the basic functionality of an SFA tool.(10 marks)

Q3.A) Explain the various factors to be considered to implements any CRM solutions in Call centre services. (10 Marks)
B) Define G-Spot. How does it helps in implementing a better CRM process. (10 Marks)

Q4.A) How CRM are useful in various level of organization to implements various strategy. (10 Marks)
B) Explain the customer Life Cycle in details and-it's relevance. (10 Marks)

Q5.A)-What is Power User Beta Test? Explain its impact on CRM.(10 Marks)
B) Differentiate between CRM and eCRM. Explain various features of eCRM. (10 Marks)

Q6.A)What are role of Customer in decision making policies. How to make good relationship with customer in organization. (10 Marks)
B) Explain with example how web enabling call centre helps in business to serve customer.(10 Marks)

Q7. Write Short notes on following.(Any Four)

- Automatic Call Distribution.
- IVR system
- Opt-in Opt-out Marketing
- Business Analytic tools
- Computer Technology Integration

M.C.A (Sem – IV)
Software Project
Management
April - 2015

M.C.A.(Sem - IV)

QP Code : 19335

April - 2015

Max Marks: 100

Time: 3hrs

- Q1 (a) What is WBS dictionary? What are the different approaches to develop WBS? Explain Mind Mapping Approach [10]
- (b) What is project implementation ?Explain the different Approach for the project implementation [10]
- Q2 (a) What is multicultural project? Explain different challenges in international project [10]
- (b) What are the different types of risk contributed in IT project ?explain the common sources of risk in IT project [10]
- Q3 (a) What is budget ?explain the different process in cost estimation .what are types of cost estimation needs [10]
- (b) Explain the different types of organization structure? Explain Matrix and Product organization in detail [10]
- Q4 (a) Explain the product life cycle ?what are different project phases in project management [10]
- (b) What is outsourcing? Explain the different types of outsourcing with advantages and disadvantage [10]
- Q5 (a) What is Contract? Explain different types of Contract use in project management [10]
- (b) What is Role & Responsibilities of project Manager to Contributed in project implementation [10]
- Q6 (a) Explain Pareto diagram and Statistical Sampling for quality control with suitable examples [10]
- (b) Explain the different tools use for the development in the project management [10]
- Q7 **Write Short Note (Any Four)** [20]
- (a) Time & Schedule Management (b) Ethics of project
(c) Administrative Closure (d)Leadership
(e) Scope Management