

Reg. No. : .....

**D 2506**

**Q.P. Code : [07 DMCA 06]**

(For the candidates admitted from 2007 onwards)

**M.C.A. DEGREE EXAMINATION, MAY 2014.**

**Second Year**

**Computer Applications**

**OOPS USING C++ AND JAVA PROGRAMMING**

**Time : Three hours**

**Maximum : 100 marks**

**Answer any FIVE questions.**

**Each question carries 20 marks.**

**(5 × 20 = 100)**

1. (a) Discuss different types of Relationship among classes. (10)  
(b) Compare static and dynamic binding in detail. (10)
2. Explain the following:
  - (a) Default constructor
  - (b) Parameterized constructor
  - (c) Copy constructor
  - (d) Dynamic constructor
  - (e) Destructor. (20)

3. (a) Write C++ program to demonstrate function overloading. (10)
- (b) Discuss exception handling in detail. (10)
4. (a) Write a C++ program to multiply two matrices using '\*' operator overloading. (10)
- (b) Explain the following
  - (i) Reference variable
  - (ii) Static variable. (10)
5. Explain Java thread and its various states. Write Java program to implement Java thread. (20)
6. Write short notes on following:
  - (a) Runnable Interface
  - (b) Java packages
  - (c) Awt
  - (d) Applets.
7. (a) Write a Java program to demonstrate socket programming. (10)
- (b) Compare C++ and Java. (10)
8. (a) How to integrate images in Java programming. (10)
- (b) Write short notes on I/O streams. (10)

Reg. No. : .....

**D 2507**

**Q.P. Code : [07 DMCA 07]**

(For the candidates admitted from 2007 onwards)

**M.C.A. DEGREE EXAMINATION, MAY 2014.**

**Second Year**

**COMPUTER NETWORKS**

**Time : Three hours**

**Maximum : 100 marks**

**Answer any FIVE questions.**

**Each question carries 20 marks.**

**(5 × 20 = 100)**

1. (a) Discuss about the applications of computer networks. (8)
- (b) Describe the ISO OSI reference model elaborately. (12)
2. (a) Discuss about public switched telephone network. (10)
- (b) Discuss about the difference between broadcast radio and microwave. (5)
- (c) What are the properties of communication satellites? Discuss. (5)

3. (a) Describe the various design issues of data link layer. (10)  
(b) What do you mean by error correcting codes? Discuss anyone in detail. (10)
4. (a) Explain sliding window protocol for flow control with an example. (10)  
(b) Explain the need for collision avoidance in a wireless network, and discuss how this is achieved in the IEEE 802.11 protocol. (10)
5. (a) Explain the leaky bucket and token bucket algorithms in detail. (10)  
(b) Discuss about the transport layer quality of service parameters. (10)
6. Explain the following routing algorithms in detail.  
(a) Flow-base routing. (10)  
(b) Multicast routing. (10)
7. (a) Explain presentation layer features in detail. (10)  
(b) Explain the concept of cryptography. (10)
8. (a) Explain the various design issues of presentation layer. (10)  
(b) Write elaborate note on E-mail. (10)

Reg. No. : .....

D 2508

Q.P. Code : [07 DMCA 08]

(For the candidates admitted from 2007 onwards)

M.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

SOFTWARE ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

Each question carries 20 marks

(5 × 20 = 100)

1. (a) Explain the evolutionary models in detail. (10)  
(b) Explain empirical estimation models. (10)
2. (a) Describe CBT. In detail. (10)  
(b) Explain requirement analysis (5)  
(c) Explain behavioral modeling (5)
3. (a) Describe the different types of coupling and cohesion. (10)  
(b) Explain how the requirements can be mapped into software architecture with an example. (10)

4. (a) Discuss the principles of user interface design. (10)
  - (b) Explain the graphical technique of representing algorithms in structural programming. (10)
  5. (a) Explain the object design process. (10)
  - (b) Explain the significant of path testing. (5)
  - (c) Discuss the various strategic issues in software testing. (5)
  6. (a) Discuss validation and verification testing. (10)
  - (b) Discuss the various testing tools. (10)
  7. (a) Compare and contrast transform mapping and transaction mapping. (10)
  - (b) Explain the effective modular design. (10)
  8. Explain the software process steps and describe the various types of process models in software engineering. (20)
-

Reg. No. : .....

D 2509

Q.P. Code : [07 DMCA 09]

M.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

VISUAL PROGRAMMING

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

Each question carries 20 marks.

(5 × 20 = 100)

1. (a) Describe the process of creating MDI windows applications in VB.NET. (10)  
(b) Explain the properties of windows form controls in VB.NET. (10)
2. (a) Discuss about the Data types available in VB.NET. (10)  
(b) Brief about Nested loop with example. (10)
3. (a) Discuss about user defined function and build in functions. (10)  
(b) Discuss about the various control statements in VB.NET. (10)

4. (a) Explain the object oriented programming features available in VB.NET. (10)  
(b) Discuss about the file processing mechanism with example code. (10)
  5. (a) Discuss the features of open dialog box. (10)  
(b) Write the comparison between structural programming and object oriented programming. (10)
  6. (a) Discuss about the features of MFC in windows programming. (10)  
(b) Discuss the features of AppWizard in VC++. (10)
  7. (a) Explain the concept of document view architecture. (10)  
(b) Write a VC++ code to include dialogue boxes and menus in your application. (10)
  8. (a) Write short notes on CDialog and CObject. (10)  
(b) Explain the data access method available in VC++ for accessing ODBC data source. (10)
-



Reg. No. : .....

**D 2510**

**Q.P. Code : [07 DMCA 10]**

(For the candidates admitted from 2007 onwards)

**M.C.A. DEGREE EXAMINATION, MAY 2014.**

**Second Year**

**Elective I – E – COMMERCE**

**Time : Three hours**

**Maximum : 100 marks**

**Answer any FIVE questions**

**Each question carries 20 marks.**

**(5 × 20 = 100 marks)**

1. (a) Explain the various models of E-Commerce. (10)  
(b) Discuss about different network access equipments that builds internet. (10)
2. (a) Bring out the public policy issues that shape the I-way. (10)  
(b) Discuss the role secure socket layer in web security. (10)
3. (a) Write a detailed note on consumer's perspective on mercantile model. (10)  
(b) "World Wide Web as the architecture for E-Commerce" - Explain. (10)

4. (a) Discuss how smart card acts as a secure electronic payment system. (10)
  - (b) Briefly discuss about the risk involved in Electronic payment system (10)
  5. (a) Briefly discuss about supply chain commerce system. (10)
  - (b) Explain about the security and privacy issues of EDI. (10)
  6. (a) Explain the process of work flow automation and co-ordination in internet information system. (10)
  - (b) Bring out the issues involved behind document infrastructure. (10)
  7. (a) "Online marketing is the current trend" - Elucidate. (10)
  - (b) Explain the process of information search and retrieval in Internet. (10)
  8. (a) Discuss the need for information filtering and explain the issues involved in it. (10)
  - (b) Briefly discuss about digital certificate. (10)
-

Reg. No. : .....

**D 2511**

**Q.P. Code : [07 DMCA 11]**

(For the candidates admitted from 2007 onwards)

M.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

Elective I – CLIENT/SERVER TECHNOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

Each question carries 20 marks.

(5 × 20 = 100)

1. (a) What is client/server computing? Write the Pros and Cons of client/server Architecture. (10)
- (b) Explain the role of web server in client / server environment. (10)
2. (a) Discuss about the network components involved in a client/server network. (10)
- (b) What is Network Operating System? List out its functions with example. (10)
3. (a) Diagrammatically illustrate and discuss the working of Remote Procedure call. (10)
- (b) Explain the issues in creating single system image. (10)

4. (a) Define SQL. Explain the structure of the SQL statement with example. (10)
  - (b) Discuss about the components involved in a data warehouse. (10)
  5. (a) Explain the features of Online Transaction Processing. (10)
  - (b) Discuss the role and functionality of Decision support system. (10)
  6. (a) With the help of a neat diagram, explain the CORBA architecture. (10)
  - (b) Define Groupware. Explain the various components of Groupware. (10)
  7. (a) Define transaction. Discuss about the ACID properties of a transaction. (10)
  - (b) Why CGI is termed as server side of the web? Explain. (10)
  8. (a) Discuss the role of SSL in web security. (10)
  - (b) With a neat diagram explain the life cycle of an Applet. (10)
-

Reg. No. : .....

**D 2512**

**Q.P. Code : [07 DMCA 12]**

(For the candidates admitted from 2007 onwards)

M.C.A. DEGREE EXAMINATION, MAY 2014.

Second Year

Elective — MULTIMEDIA AND ITS APPLICATIONS

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. (a) List and explain the role of multimedia in various applications.  
(b) Explain the various Video digitizing boards for making QuickTime and AVI for windows.
2. (a) What is the function of Icon based authoring tools? Explain.  
(b) Write short notes on Sound and image editing tools.
3. (a) What do you mean by cross platform? Explain.  
(b) Explain the purpose of presentation tools.

4. (a) (i) List and explain the features of 3-D modeling tools.  
(ii) Write short notes on rendering.
- (b) Discuss briefly about various audio file formats.
5. (a) How color is used in multimedia for images?  
(b) Explain about font editing and design tools.
6. (a) (i) State the difference between Bitmap and Vector Images.  
(ii) Discuss the Principles of animation.
- (b) List and explain the recording formats used in video.
7. (a) Discuss in detail about JPEG and MPEG compression standard.  
(b) Discuss the role of Sound, Image and Animation features for designing web.
8. (a) Explain the issues in designing the intelligent multimedia system.  
(b) Briefly explain about ATV and HDTV transmission standards.