EE-681

M.C.A. EXAMINATION, Dec. 2017

(Fifth Semester)

(B. Scheme) (Main & Re-appear)

(MCA)

MCA-601

ADVANCED JAVA

Time : 3 *Hours*]   [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. Write an applet that sets the foreground colour to "red" and background colour to "Cyan". **15**

2. (a) How is multiple inheritance handled in Java ? Explain with the help of an example. **7**

(b) Explain the concept of multi threading in Java. **8**

Unit II

3. (a) Explain the complete involved in JDBC process. **10**

(b) Name and explain the exception is thrown by JDBC methods. **5**

4. (a) Name and explain different types of classes used in RMI. **7**

(b) Draw comparison between RMI and Java IDL. **8**

Unit III

5. What are the differences between :

(a) Swing and AWT **7**

(b) Scrollabar and ScrollPane. **8**

6. (a) Name and explain three component subclasses that support painting. **10**

(b) What is the difference between the paint( ), repaint( ) and update( ) ? **5**

Unit IV

7. (a) What is Bean persistence property ? **15**

(b) Explain the naming pattern followed for beam components.

8. Write short notes on the following :

(a) Byte code verification **7**

(b) Digital signatures. **8**

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MCA-603

.NET FRAMEWORK WITH C#

Time : 3 *Hours*]   [*Maximum Marks :* 75

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Note : Attempt *Five* questions in all, selecting at
least *one* question from each Unit. All
questions carry equal marks.

Unit I

1. (a) Give an introduction of .Net framework.

15

(b) Explain CTS, CLR and CLS.

2. Explain with example Just-In time compilation.

15

Unit II

3. What is Inheritance ? Explain its types with example. Also explain polymorphism with example. **15**

4. Explain with example : **15**

(a) Array and strings

(b) Object and Classes

(c) Delegates and events type conversion.

Unit III

5. Explain Multithreading with Program. What are C# liabiabraries ? Explain their roles. **15**

6. Explain the following : **15**

(a) Networking and sockets

(b) Error handling with examples.

Unit IV

7. (a) What are advanced features of C# ?

(b) Explain Asp.net web form control. **15**

8. (a) What are built-in attributes and custom attributes ? **15**

(b) Explain with example Graphical device interface with C#.

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MCA-605

SOFTWARE PROJECT MANAGEMENT

Time : 3 *Hours*]   [*Maximum Marks :* 75

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Note : Attempt *Five* questions in all, selecting at least *one* question from each Section. All questions carry equal marks.

Section A

1. You are asked to make a project for time-table preparation for your institute. List all the stake holders in this project ? What are the possible problems you may face during this project ?

    15

2. Compare and contrast various approaches for effort estimation during the development of a software project. **15**

Section B

3. (a) Write and explain any *two* cost-benefit evaluation techniques ? **8**

    (b) What do you mean by software prototying ? Discuss different types of prototypes. **7**

4. List the advantages of using PERT technique over CPM. Also explain the following w.r.t. PERT : **15**

    (a) Activity standard deviation

    (b) Calculation of z-values

    (c) Conversion of z-values to probabilities.

Section C

5. List the benefits of activity prioritization ? Discuss any *two* methods generally used for activity prioritization. **15**

6. (a) What are different types of contracts ? Write the advantages and disadvantages of each. **10**

    (b) Explain the "Expectancy theory of motivation". **5**

Section D

7. For an application to manage the front-end desk of a hospital, identify entry, process and exit requirements. **15**

8. (a) Define software quality. Describe the importance of software quality. **7½**

    (b) Write any *five* features of Project 2000. **7½**

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(Fifth Semester)

(B. Scheme) (Main & Re-appear)

(MCA)

MCA-651

LINUX AND SHELL PROGRAMMING

Time : 3 *Hours*]   [*Maximum Marks :* 75

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Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. Explain the architecture of Unix/Linux System. Also explain Linux File system. **15**

2. Explain the following : **15**
   (a) Partitioning the Hard drive for Linux
   (b) Linux Standard Directories
   (c) Disk Related Commands in Linux.

Unit II

3. What is a Shell in Linux ? How multiple processes are managed in it ? **15**

4. What is a VI editor ? Explain different file related commands in Linux. **15**

Unit III

5. Write is the role of system administrator in Linux ? Explain the following in reference to it : **15**
   (a) Changing process priorities
   (b) Connecting process with pipes.

6. How X-window is configured ? Explain KDE and Gnome graphical Interface. **15**

Unit IV

7. What are various types of Shell available in Linux ? Give their comparison. **15**

8. Explain the following statements/commands in shell programming with suitable example : **15**
   (a) Condition and looping statement
   (b) Passing parameters and arguments.

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MCA-655

NETWORK ADMINISTRATION

Time : 3 *Hours*]   [*Maximum Marks :* 75

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Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

Unit I

1. (a) Elaborate TCP/IP model in detail.   **7**

(b) List and explain any *four* networking devices in detail. **8**

2. (a) What is the concept of DNS ? Explain. **7**

(b) What is an IP address ? Also write various address classes. **8**

Unit II

3. (a) Explain the concept of transposition cipher with its merits and demerits. **7**

(b) What are firewalls ? Also explain their utility for networks. **8**

4. Write short notes on any *two* of the following :
   (a) DES
   (b) IPSEC
   (c) RSA Algorithm.

Unit III

5. (a) What are various issues in host administration and how they can be tackled ? **7**

(b) What is the significance of user accounts ? Also write the steps for creating user account in UNIX. **8**

6. (a) What is the booting process of Windows Operating System ? Explain. **7**

(b) What is NTFS file system ? Explain. **8**

Unit IV

7. Write short notes on the following :
   (i) Unix editor vi
   (ii) AWK utility
   (iii) C-shell. **15**

8. (a) Describe Borne shell along wtih its characteristics. **5**

(b) Write a shell script to calculate the sum of a given series of number. **5**

(c) List and explain any *three* file related commands for Unix along with their syntax. **5**