

No. of Printed Pages : 03

Roll No.

EE-681

M.C.A. EXAMINATION, Dec. 2018

(Fifth Semester)

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

MCA601

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. (a) What is a thread ? With the help of an example illustrate the workings of the thread. 7

(b) What are Collections ? How they are helpful in creating dynamic data structures ? **8**

2. Discuss the process of creation of server and client sockets with exceptions handled explicitly with a suitable example. **15**

Unit II

3. (a) Explain scrollable and updateable result sets. Also give the methods in Java to implement these. **7**

(b) Discuss the concept of LDAP with its implementation strategy in Java. **8**

4. What is Java RMI ? What are major benefits of programming with JAVA RMI ? Explain the main components of the RMI. **15**

Unit III

5. (a) Write a program in Java using swings to implement the functionality of progress bar. **7**

(b) What is a Java Applet ? What are difference between swings and applet ? **8**

6. (a) List any *eight* controls from Java.awt package with their usage. **7**

(b) Write a program to illustrate the usage of drag and drop facility in AWT. **8**

Unit IV

7. (a) Describe relationship between JSP and Servlet. **7**

(b) What are Customizers ? Explain. **8**

8. (a) Discuss various naming patterns for Java Beans. **7**

(b) What is Encryption ? How is it implemented in Java ? **8**

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MCA603

.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. What is .Net framework ? Explain it. Also explain framework base classes. **15**

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P.T.O.

2. Write notes on the following :
 - (a) Common Type System (CTS) **8**
 - (b) Just-In-Time compilation. **7**

Unit II

3. Define data type. Explain different data types used in C#. **15**
4. Explain the following ;
 - (a) Operator overloading
 - (b) Event type conversion. **8,7**

Unit III

5. What is error handling ? Explain the different techniques to handle errors in C# program. **15**
6. (a) Explain Window forms. **7**
 - (b) What do you mean by console I/O operations ? Explain. **8**

Unit IV

7. (a) What is ADO .NET ? Explain. **7**

- (b) Explain the graphical device interface in reference of C#. **8**

8. Write notes on the following :
 - (a) Window services
 - (b) Web Services. **7,8**

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M.C.A. EXAMINATION, Dec. 2018

(Fifth Semester)

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

MCA605

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 Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. (a) What is a SP ? How SPs are categorized ? **8**
(b) How can you estimate efforts for each activity ? How can you identify activity risk ? Explain. **7**
2. Explain with the help of diagram all steps involved in stepwise Project Planning. **15**

Unit II

3. (a) Differentiate between spiral model and waterfall model. **8**
(b) What is Project Schedule ? Discuss various sequencing and scheduling activities. **7**
4. (a) What is a Risk ? How can you manage and reduce risk ? **8**
(b) State and explain Backward and forward pass. **7**

Unit III

5. (a) What is a Critical Path ? How scheduling resources create critical path ? **8**
(b) How can you monitor control during the project ? Explain **7**
6. (a) What is a contract ? What are its types and stages ? Explain. **8**
(b) How can you manage people for efficient organisation during the project ? **7**

Unit IV

7. (a) What is ISO 9126 ? Give its features. **8**
(b) What are the techniques to exchange the software quality ? **7**
8. What is Software Quality ? What is its significance ? Explain practical software quality measures. **15**

Unit IV

7. (a) Write a shell script to reverse a given string. 7
(b) What is AWK ? What are its features ? 8
8. (a) Discuss various shell keywords. 7
(b) Discuss the argument passing in shell script. 8

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M.C.A. EXAMINATION, Dec. 2018

(Fifth Semester)

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

MCA651

LINUX & 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. (a) Write down characteristics and responsibilities of shell. 5

- (b) Draw the block for Inode structure and explain the contents. **5**
 - (c) Describe the Linux commands for handling directories. **5**
2. (a) Name the various versions of Linux known to you. Also highlight the differences in them. **7**
- (b) Discuss Basic architecture of Unix. **8**

Unit II

3. (a) What is a process ? Describe different commands with their attributes related to process management in Linux.
- (b) Explain commands to handle file related operation in vim editor.
- (c) What is Privilege ? Discuss various commands related to privilege management in Linux. **15**
4. (a) With an example illustrate how processes can be interconnected in Linux. **5**

- (b) Discuss the commands related to mathematical calculations. **5**
- (c) Write the format of commands used for printing purpose. **5**

Unit III

5. (a) What are various types of groups available in Linux ? Discuss commands related to create, manage and modify groups.
- (b) Discuss process to create back and restore files.
- (c) Explain steps involved in configuring X-windows desktop. **15**
6. (a) What is mounting of a file system ? Discuss the helpful commands for this.
- (b) Discuss commands used for retrieving storage information of disk.
- (c) Explain steps to configure hardware with Kudzu. **15**

8. (a) What is Shell Programming ? Write a shell program to create a menu and execute a given option based on user choice.
Option include : 8
(i) List of users
(ii) List of Processes
(iii) List of files.
- (b) What are the internal and external commands in UNIX ? Explain any *two* examples in each type. 7

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M.C.A. EXAMINATION, Dec. 2018

(Fifth Semester)

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

MCA655

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. What do you mean by IP addressing ? Also explain IP address classes and subnet Addressing. **15**
2. (a) Explain the following commands : ping, netstat, tracert, traceroute. **8**
(b) Write a note on virtual LAN. **7**

Unit II

3. (a) What is digital signature ? Show how signing and verification is done using DSS (Digital Signature Standard). **8**
(b) Write an RSA Algorithm. In RSA, given $N = 133$ and the encryption Key (E) =5, find the corresponding private key and public key. **7**
4. (a) What is AES ? What are the major parameters used in AES ? Explain the processing of plain text with a suitable diagram. **10**
(b) Define IP security architecture. **5**

Unit III

5. (a) Explain various process state in O.S. and also explain the role of zombie and orphan process in process state diagram. **8**
(b) Explain shadow passwords and directory structure for Linux O.S.. **7**
6. (a) Describe the role and responsibilities of System administrator in host management. **8**
(b) Differentiate between NTFS and FAT in detail. **7**

Unit IV

7. (a) Explain about the looping statements in C shell. **7**
(b) What is awk utility ? Explain the options of awk utility. **8**