

Hall Ticket Number :

--	--	--	--	--	--	--	--	--	--	--

R-15

Code: 5P2B43

M.C.A. IV Semester Regular & Supplementary Examinations May 2018

Advanced Java for Web Technologies

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60 Marks)

UNIT-I

1. Compare the differences between HTML and HTML5. List the available HTML common tags. 12M

OR

2. a) What is a function? Explain how parameters are passed to functions in java script. 6M
b) Design a HTML form for a railway reservation system. 6M

UNIT-II

3. a) What are the problems of servlets? Discuss. 6M
b) Explain how HTTP Request and Responses are handled in Servlet. 6M

OR

4. a) Elaborate the problems of servlets and discuss in detail 6M
b) Discuss about javax.servelet.HTTP package with suitable code. 6M

UNIT-III

5. a) Describe the anatomy of a JSP page. 6M
b) Discuss about JSP processing. 6M

OR

6. Explain about JSP Standard Tag Library (JSTL) and outline the importance of JSTL with suitable code. 12M

UNIT-IV

7. Explain in detail about error handling and debugging in JSP pages. 12M

OR

8. Explain the significance of the bound property in Java beans. With an example, explain the bound properties related to Java bean. 12M

UNIT-V

9. a) List and explain the steps involved in a basic JDBC program. 6M
b) Explain about JSP elements in detail. 6M

OR

10. Outline various steps involved in development of JDBC Programming. 12M

Hall Ticket Number :

--	--	--	--	--	--	--	--	--	--	--

R-15

Code: 5P2B4A

M.C.A. IV Semester Regular & Supplementary Examinations May 2018

Cloud Computing

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60 Marks)

UNIT-I

1. a) Define cloud computing? Give brief information the history of cloud computing 7M
b) List the uses of cloud computing 5M

OR

2. Discuss briefly about the types of cloud computing and its applications. 12M

UNIT-II

3. a) How a cloud computing works? Explain. 6M
b) Explain briefly about centralizing email communication. 6M

OR

4. Describe the cloud collaboration on schedules and on group projects 12M

UNIT-III

5. Discuss the following terms
a. Collaborating on project management 6M
b. Collaborating on word processing 6M

OR

6. How cloud computing collaborated with
a. Calendars
b. Schedules
c. Task management 12M

UNIT-IV

7. Explain the following terms:
a. Evaluating web mail services 6M
b. Evaluating on line group ware 6M

OR

8. Discuss about collaborating via block's and wiki's. 12M

UNIT-V

9. Discuss about exploring online book marking services with example. 12M

OR

10. Explain the following terms with examples:
a. Online photo sharing 6M
b. Online storage services 6M

Code: 5P2B4D

M.C.A. IV Semester Regular & Supplementary Examinations May 2018

Distributed Databases

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60Marks)

UNIT-I

1. a) Write and explain the different types of Distributed Databases 6M
 b) With the help of a neat sketch explain the architecture of DDBS 6M

OR

2. a) Discuss in detail about the salient features of distributed databases 6M
 b) Give brief description about how to access the distributed database 6M

UNIT-II

3. a) Write and explain the fourth level of distributed transparency 6M
 b) Distinguish between top – down and bottom – up approaches for data distribution 6M

OR

4. Write and explain the role of horizontal fragmentation in Distributed Database 12M

UNIT-III

5. Explain the working of concurrency control mechanism with respect to locking of distributed databases 12M

OR

6. a) Describe the behavior of the two – phase of locking protocol in the presence of different kinds of failures 6M
 b) Explain the importance of query optimization in distributed database 6M

UNIT-IV

7. a) What is concurrency control? Why we need it? Explain 6M
 b) Write and explain the properties of termination protocol for 3 – phase commitment 6M

OR

8. a) Write short notes on checkpoints and cold restart 6M
 b) Give brief description about time and timestamps in distributed databases 6M

UNIT-V

9. a) Draw and explain the architecture of asynchronous transaction processing of CICS/ISC 6M
 b) Explain the working of distributed transaction processing using CICS / ISC 6M

OR

10. Discuss in detail about the role of catalog management in distributed databases 12M

Code: 5P2B44

M.C.A. IV Semester Regular and Supplementary Examinations May 2018

Data ware Housing and Data Mining

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60Marks)

UNIT-I

1. a) Discuss in detail the various steps in knowledge discovery in data bases? 6M
- b) Explain different functionalities in data mining? 6M

OR

2. Describe the architecture of data warehouse and its implementation? 12M

UNIT-II

3. Explain the various data reduction techniques in the preprocessing step of data mining? 12M

OR

4. Explain Attribute Oriented Induction (AOI) algorithm for data characterization with an example? 12M

UNIT-III

5. Write the various criteria for frequent pattern mining? Write Apriori algorithm for finding frequent item sets using candidate generation with an example? 12M

OR

6. Explain FP-growth algorithm for discovering frequent item sets without candidate generation? 12M

UNIT-IV

7. Explain k-means and k-medoids clustering algorithms with suitable examples? 12M

OR

8. What is classification? Write an algorithm for constructing a decision tree from training samples? 12M

UNIT-V

9. What is web mining? Explain the various types of web mining? 12M

OR

10. What is text mining? What are the various dimensionality Reduction techniques used in text mining? 12M

Hall Ticket Number :

--	--	--	--	--	--	--	--	--	--	--

R-15

Code: 5P2B41

M.C.A. IV Semester Regular & Supplementary Examinations May 2018

Software Engineering

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60 Marks)

UNIT-I

1. Discuss how both the waterfall model and the prototyping model can be accommodated in the spiral process model, with an example system. 12M

OR

2. Explain the ways and means for collecting the software requirements and how are they organized and represented? 12M

UNIT-II

3. a) Give reasons why should we consider the people, the tasks, the content and the environment in Interface analysis 6M
b) Explain about different Requirement Engineering tasks 6M

OR

4. Develop an object model including a class hierarchy diagram and an aggregation diagram showing the principal components of an Automatic Teller Machine (ATM) and its system software. 12M

UNIT-III

5. a) Why various architectural styles and patterns are created for software development? Give reasons why layered architecture is used in OSI reference model? 6M
b) Analyze the flow oriented modeling in the Design phase of Software Development Life Cycle? Illustrate with an example. 6M

OR

6. What is transform mapping? Explain the process with an illustration. What are its strength and weakness? 12M

UNIT-IV

7. a) Compare and contrast top down integration and bottom up integration in the case of integration testing. Suggest cases where these are essential. 6M
b) Design your own software testing steps to test a software project which you have completed in the laboratory. Exemplify all stages. 6M

OR

8. What are the various testing strategies of software testing? Discuss them briefly 12M

UNIT-V

9. Explain Risk Identification and RMMM 12M

OR

10. a) Discuss the concept of software maintenance process. 6M
b) What is meant by SQA? Discuss in detail SQA activities. 6M

Hall Ticket Number :

--	--	--	--	--	--	--	--	--	--	--

R-15

Code: 5P2B42

M.C.A. IV Semester Regular & Supplementary Examinations May 2018

System Software

Max. Marks: 60

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 12 = 60 Marks)

UNIT-I

- 1 Explain the Registers, Instruction formats and addressing modes of SIC/XE machine architecture? 12M

OR

- 2 a) What is system software? Differentiate it from the application Software? 6M
b) Explain with an example, simple input and output SIC/XE machine architecture? 6M

UNIT-II

- 3 What are the fundamental functions of any assembler? With an example explain any six assembler directive? 12M

OR

- 4 a) Explain the data structure used in Assembler algorithm 6M
b) What is program relocation? Explain the problems associated with it and their solutions? 6M

UNIT-III

- 5 a) Explain the MASM macro preprocessor 6M
b) Explain data structures involved in macro preprocessor algorithms 6M

OR

- 6 a) Explain the advantages and disadvantages of the general purpose macro preprocessor? 6M
b) Explain the single pass macro preprocessor 6M

UNIT-IV

- 7 Briefly explain Bootstrap loader, with the algorithm give an example 12M

OR

- 8 With diagram, Explain the how object program can be processed using linkage editor? 12M

UNIT-V

- 9 Define Compiler? Explain the Different phases of the compilers? With an example? 12M

OR

- 10 a) Explain the Parse tree? What is the Role of the grammars in Compilers? Construct the parse tree for the following grammar $S \rightarrow CC$, $C \rightarrow aC / d$ for the string aadaad 8M
b) What are the applications of the FSM? 4M
