

Code: 5P2B43

M.C.A. IV Semester Regular Examinations May 2017

**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 = 60Marks )

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**UNIT-I**

1. a) Define HTML. Explain about all the Form tags with a Registration Form example. 6M  
 b) What is the purpose of CSS? Given an example for z-index. 6M

**OR**

2. a) How to declare functions in java script? Explain with an example. 6M  
 b) Describe the properties and methods of String and Math object. 6M

**UNIT-II**

3. a) Discuss about form events in java script. 6M  
 b) Define event bubbling. Explain the event bubbling concept with an example. 6M

**OR**

4. a) Differentiate between DTD and Valid XML documents. 6M  
 b) Differentiate between DOM parser and SAX parser. 6M

**UNIT-III**

5. a) Distinguish between Servlets and JSPs. 6M  
 b) Explain Servlet life cycle with neat sketch and discuss life – cycle methods. 6M

**OR**

6. a) What is Deployment descriptor? Give an example. 6M  
 b) Briefly explain the steps to write and execute a servlet program. 6M

**UNIT-IV**

7. a) What are the implicit objects in JSP and give out differences between them with suitable examples. 6M  
 b) Write a program to read and set cookies in JSP 6M

**OR**

8. a) Explain about exception handling in JSP with an example. 6M  
 b) List out all properties of java bean. Explain any two of them with suitable examples. 6M

**UNIT-V**

9. a) What are the steps involved in JDBC Programming? Explain in detail. 6M  
 b) Discuss the classes and methods in javax.sql.\* package. 6M

**OR**

10. a) Differentiate between Data tier, Service tier and Presentation tier. 6M  
 b) Write a short notes on deploying Java Beans from JSP Page. 6M

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<b>R15</b>
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**Code: 5P2B4A**

*M.C.A. IV Semester Regular Examinations May 2017*

### **Cloud Computing**

Max. Marks: 60

Time: 3 Hours

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

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<b>UNIT-I</b>
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1. a) What is meant by Cloud Computing? List and explain the types of cloud computing. 8M
- b) Discuss the merits and demerits of cloud computing. 4M

**OR**

2. a) Write a note on Infrastructure as a service. 4M
- b) Describe the feature perspective and developments of cloud computing. 8M

<b>UNIT-II</b>
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3. a) Explain the Collaborating on Financial Statements 6M
- b) Briefly explain the collaborating on group projects and events 6M

**OR**

4. Write a short notes on the following 4M
  - a) Collaborating on Budgets 4M
  - b) Managing Schedules 4M
  - c) Managing Projects 4M

<b>UNIT-III</b>
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5. a) Discuss the collaborating on project management 6M
- b) Write the Understanding Contact Management and CRM 6M

**OR**

6. a) Describe the spreadsheets and databases. 6M
- b) Briefly explain the Exploring Project Management Application 6M

<b>UNIT-IV</b>
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7. a) Illustrate the collaborating via blogs and wikis. 6M
- b) Give a brief note on huddle and nexo 6M

**OR**

8. a) Write a short note on Evaluating web mail services 6M
- b) Describe the Collaborating via Social Networks and Groupware. 6M

<b>UNIT-V</b>
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9. a) Discuss the Evaluating Online File-Storage and -Sharing Services. 6M
- b) Explain the Exploring Photo-Sharing Communities 6M

**OR**

10. Briefly explain the following terms 4M
  - a) Picnik 4M
  - b) FotoFlexer 4M
  - c) Adobe Photoshop Express 4M

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<b>R14</b>
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**Code: 4P2B4D**

*M.C.A. IV Semester Supplementary Examinations May 2017*

**Distributed Data bases**

Max. Marks: 60 Time: 3 Hours  
Answer *all five* units by choosing one question from each unit ( 5 x 12 = 60Marks )

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**UNIT-I**

- 1. a) Write and explain the characteristics of Distributed Databases 6M
- b) Give brief description about advantages and disadvantages of using Distributed Databases 6M

**OR**

- 2. With the help of a neat sketch explain the architecture of a typical distributed database system 12M

**UNIT-II**

- 3. Write and explain the various levels that are present in distributed transparency 12M

**OR**

- 4. a) With the help of a suitable example explain the location transparency for update operation 6M
- b) Write and explain the objectives for the design of a typical data distribution 6M

**UNIT-III**

- 5. Why we are using two – phase commitment protocol? Explain the working of same 12M

**OR**

- 6. a) Discuss in detail about the problems involved in query optimization 6M
- b) Write short notes on how to lock the centralized databases 6M

**UNIT-IV**

- 7. a) Write about the timestamp method for conservative mechanism 6M
- b) Explain the role of reliability with respect to distributed databases 6M

**OR**

- 8. What is a deadlock? When it occurs? Explain deadlock detection by using distributed databases and hierarchical controllers 12M

**UNIT-V**

- 9. a) With the help of a neat sketch explain the function shipping 6M
- b) Write short notes on distribution of catalogs 6M

**OR**

- 10. a) Compare the operation modes of CICS with ISC 6M
- b) Give brief description about object naming and catalog management with respect to site autonomy 6M

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**Code: 5P2B44***M.C.A. IV Semester Regular Examinations May 2017***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 )

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**UNIT-I**

1. How does a data warehouse handle multi-dimensional data? Explain the data structures and schema that support multi-dimensional data with an example? 12M

**OR**

2. a) Draw and explain the architecture of a typical data mining system? 6M  
b) Discuss the major issues in data mining system? 6M

**UNIT-II**

3. Explain the different methods for data cleaning and data integration? 12M

**OR**

4. Explain the various methods for concept hierarchy generation for numerical data? Generate a concept hierarchy using 3-4-5 rule with an example? 12M

**UNIT-III**

5. Explain the various techniques to improve the efficiency of Apriori based mining? 12M

**OR**

6. Define precision, recall and F-measure? Write a note on various criteria for mining multilevel association rules? 12M

**UNIT-IV**

7. Explain different distance matrices used in clustering data points with ordinal, nominal, Boolean and mixed value attributes? List the measures used to evaluate the quality of clusters? 12M

**OR**

8. Write a note on Bayes theorem? Explain Naive Bayesian classification with suitable example? 12M

**UNIT-V**

9. What is spatial data mining? Explain the mining methods used in spatial data bases? 12M

**OR**

10. a) Discuss the applications of data mining in telecom industry? 6M  
b) Describe the data mining functionalities of DB miner? 6M

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**Code: 5P2B44***M.C.A. IV Semester Regular Examinations May 2017***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 )

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<b>UNIT-I</b>
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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

<b>UNIT-II</b>
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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

<b>UNIT-III</b>
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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

<b>UNIT-IV</b>
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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

<b>UNIT-V</b>
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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

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**Code: 5P2B41***M.C.A. IV Semester Regular Examinations May 2017***Software Engineering**

Max. Marks: 60

Time: 3 Hours

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

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<b>UNIT-I</b>
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1. a) Describe briefly the Capability maturity model integration (CMMI)? 8M  
b) Write a note on Software myths? 4M

**OR**

2. a) Describe briefly the Evolutionary process models with neat sketches? 8M  
b) Write brief note on Functional and Non-functional requirements? 4M

<b>UNIT-II</b>
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3. Explain the Requirements engineering process with a neat sketch and describe each stage in the Requirements engineering process? 12M

**OR**

4. a) Describe briefly the Design concepts? 6M  
b) Write a note on Architectural styles and patterns? 6M

<b>UNIT-III</b>
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5. a) Explain briefly An Object –oriented design process with an example? 8M  
b) What are the Golden rules for performing user interface design? 4M

**OR**

6. a) Explain briefly White box and Black box testing? 8M  
b) Write a note on Metrics for Analysis model? 4M

<b>UNIT-IV</b>
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7. a) Describe briefly the Reactive vs. Proactive Risk strategies? 6M  
b) Write a brief note on Risk identification and Risk refinement? 6M

**OR**

8. a) Explain briefly about Software Quality Assurance and Software reliability? 8M  
b) Explain briefly about ISO 9000 Quality standards? 4M

<b>UNIT-V</b>
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9. a) Explain Project Cost Estimation Techniques. 8M  
b) Explain COCOMO model with suitable example. 4M

**OR**

10. Explain in detail about project management activities 12M

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**R15**

**Code: 5P2B42**

*M.C.A. IV Semester Regular Examinations May 2017*

### **System Software**

Max. Marks: 60

Time: 3 Hours

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

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#### **UNIT-I**

1. Explain the 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 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? 8M

b) What are the applications of the FSM? 4M

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