Code: 4P2B41

M.C.A. IV Semester Regular Examinations June 2016
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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UNIT–I

1. a) What are the differences between generic software product development and custom software development 8M
    b) Explain socio-technical system. 4M

OR

2. a) Explain in detail the incremental process models. 6M
    b) Explain in detail the user requirements. 6M

UNIT–II

3. a) What is SRS? Discuss about the components of the SRS? What are the main criteria for evaluating the quality of an SRS? 6M
    b) Describe various data models for the software system. 6M

OR

4. a) Explain in detail the design classes involved in software design. 6M
    b) What is an architectural pattern? Discuss various issues associated with it. 6M

UNIT–III

5. a) Explain in detail the objects and object classes 6M
    b) Explain in detail about user interface analysis and design. 6M

OR

6. a) Describe validation criteria. 6M
    b) Explain how integration testing method is applied for conventional software. 6M

UNIT–IV

7. a) Explain in detail about software measurement. 6M
    b) What is risk refinement? Explain. 6M

OR

8. a) What is software quality control and what are the components of the cost of quality? 6M
    b) Explain the steps involved to perform statistical software quality assurance. 6M

UNIT–V

9. a) Explain Project Cost Estimation techniques. 6M
    b) Explain COCOMO model with suitable example. 6M

OR

10. Explain briefly about Project Scheduling. 12M

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M.C.A. IV Semester Regular Examinations July 2016
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) What is HTML? Explain the syntax and use of link, image and table tags with an example.   6M
    b) Explain about different CSS properties. Create a simple web page which displays some text with an image as it's background which is tiled in x-direction.   6M

OR

2. a) Briefly discuss about the control structures in Java script with suitable examples.   6M
    b) Write a java script program to find the second largest number, when a user gives three integer numbers are input.   6M

UNIT–II

3. a) Explain how to declare global and functions in java script with suitable example.   6M
    b) List out the properties and methods of String and Date object in java script.   6M

OR

4. a) What is a Valid XML document? Describe the steps to create a Valid XML file with an example.   6M
    b) Define XSLT. Explain about XSL document with an example.   6M

UNIT–III

5. a) Define servlets. Describe the advantages of servlets over CGI.   6M
    b) What is IIS? Explain the procedure for installation and state it's purpose with an example.   6M

OR

6. a) Write a program that uses cookies to count and store the number of times a user has visited your servlet.   6M
    b) What are the various ways for achieving Session Tracking? How do you implement using Servlets?   6M

UNIT–IV

7. a) Explain about the architecture of Java Server Pages (JSP) and its applications in detail.   6M
    b) Explain JSP life cycle with neat sketch and discuss life – cycle methods.   6M

OR

8. a) What are the implicit objects in JSP? Explain each one of them with suitable example.   6M
    b) Why java bean is necessary? Give reasons.   6M

UNIT–V

9. a) Define Database. Explain about types of JDBC drivers.   6M
    b) Discuss the classes and methods in javax.sql.* package.   6M

OR

10. a) With a neat diagram discuss about JDBC architecture.   6M
    b) How database connectivity is achieved using JSP? Explain with an example.   6M

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M.C.A. IV Semester Regular Examinations June/July 2016
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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UNIT–I

1. a) Who benefits from Cloud Computing? Discuss in detail   6M
    b) List and explain the applications of Cloud Computing.   6M

OR

2. a) Describe the evolution of cloud computing.   8M
    b) Discuss the Pros and Cons of Cloud services Development.   4M

UNIT–II

3. a) Describe the cloud computing for community.   6M
    b) Briefly explain the collaboration on schedules.   6M

OR

4. a) Discuss the Collaborating on School Projects.   4M
    b) Illustrate the cloud computing for corporation and mapping scheduling & managing projects   8M

UNIT–III

5.   Write a short notes on the following:
            a) AOL Calendar   4M
            b) Calendar Hub   4M
            c) Hunt calendars   4M

OR

6. a) Discuss the exploring Online Scheduling Applications.   6M
    b) Write the benefits of Web-Based Word Processors.   6M

UNIT–IV

7.   Explain the following terms
            a) Google Talk   4M
            b) ICQ   4M
            c) Yahoo! Messenger   4M

OR

8. a) Describe the Other Web Mail Services.   6M
    b) Illustrate the evaluating Instant Messaging Services   6M

UNIT–V

9. a) What is Cloud Storage? Why Use Cloud Storage?   6M
    b) Discuss the evaluating Web-Based Desktops   6M

OR

10. a) Write the Risks of Storing Data in the Clouds.   6M
    b) Explain the exploring on line book marking services   6M

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M.C.A. IV Semester Regular Examinations July 2016
Distributed Databases

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. Describe the features of Distributed Databases and Centralized Databases. Also Compare the two.   12M

OR

2. Explain the Distributed Database Access Primitives.   12M

UNIT–II

3. Explain about a Framework for Distributed Database Design.   12M

OR

4. Describe the Integrity Constraints in Distributed Databases.   12M

UNIT–III

5. Describe the Framework for Query Optimization.   12M

OR

6. Explain the Concurrency Control for Distributed Transactions.   12M

UNIT–IV

7. Describe about Concurrency Control Based on Timestamps.   12M

OR

8. What are the basic concepts of Reliability? Explain about Non-blocking Commit Protocols.   12M

UNIT–V

9. Describe about Catalog Management in Distributed Databases.   12M

OR

10. Explain Authorization and Protection mechanisms in Distributed Databases.   12M

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Code: 4P2B44

M.C.A. IV Semester Regular Examinations July 2016
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. a) Describe the major steps in the Knowledge discovery process.   5M
   b) What is data mining? Describe the architecture of a data mining system.   7M
   OR
2. Categorize data mining systems according to various criteria   12M

UNIT–II

3. Discuss the basic methods of data cleaning   12M
   OR
4. Discuss a few data summarization techniques.   12M

UNIT–III

5. Discuss in detail Apriori algorithm for generation of frequent item sets   12M
   OR
6. Discuss in detail mining multi-level association rules   12M

UNIT–IV

7. Explain decision tree induction method for classification
   OR
8. a) Discuss the typical requirements of clustering methods   8M
   b) Write about categorization of different clustering methods   4M

UNIT–V

9. Write about different applications and trends in data mining   12M
   OR
10. Discuss in detail time series data mining   12M
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Code: 4P2B42

M.C.A. IV Semester Regular Examinations June/July 2016
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. a) What is System Software? Explain the system Software Architecture?   8M
    b) Write a Short note on
        i) Resource Allocation
        ii) User Interface   4M

OR

2. a) Define Addressing modes? Explain the different types of addressing modes?   6M
    b) Write a program in SIC and SIC/XE to copy character string 'system software'
        to another character string?   6M

UNIT–II

3. Explain the how multi pass assembler handles following forward reference

```
1  HALFSZ    EQU    MAXLEN/2
2  MAXLEN    EQU    BUFEND-BUFFER
3  PREVBT    EQU    BUFFER – 1
4  BUFFER    RESB   4096
5  BUFEND    EQU    *
```

Assume that, when assembler goes line 4, location counter contains 1.34(hex)   12M

OR

4. Generate the complete object program for the following assembly level
    program with symbol table. Assume
    CLEAR = B4 , LDT=74, TD=EO,   JEQ=30, TIXR=B8, JLT=38 , RSUB=4C,
    LDCH=50, WD=DC, X=1, T=5

```
WRREC   START  105D
        CLEAR  X
        LDT    LENGTH
WLOOP   TD     OUTPUT
        JEQ    WLOOP
        LDCX   BUFFER,X
        WD     OUTPUT
        TIXR   T
        JLT    WLOOP
        RSUB
OUTPUT  BYTE   X '05'
BUFFER  RESB   400
LENGTH  RESB   2
        END    WRREC
```
                                                                                         12M

UNIT–III

5. a) Define Macro preprocessor? Explain the design of the Macro preprocessor   8M
    b) Write an algorithm for one pass macro preprocessor   4M

OR

6. Explain the Single pass & Two pass Macro Assembler   12M

UNIT–IV

7. a) What is Bootstrap loader? Explain the Basic loader functions   6M
    b) Define the Absolute loader? Write an algorithm for absolute loader and explain?   6M

OR

8. Explain the Machine dependent Loader functions?   12M

UNIT–V

9. a) Explain the Parse tree? What is the Role of the grammars in Compilers?   8M
    b) What are the applications of the FSM?   4M

OR

10. Define Compiler? Explain the Different phases of the compilers?   12M

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