B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Applications

Elective—WIRELESS APPLICATION PROTOCOL

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1. What is WBXML ?

2. Mention the disadvantages of Layered Architecture.

3. What is the purpose of refresh element ?

4. What is an intrinsic event ? Give an example.

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5. Give any two operations of floating point in WML Script

6. What is a pragma ?

7. How will you design a usable Website ?

8. Designer of user interface must know about the target Audience –Why ?

9. What are the functions of network specific library ? Mention any two.

10. What is meant by repository in WTA client framework ?

Part - B (5 × 5 = 25)

Answer **all** questions.

11. (a) Give any two WAP Architecture design principles and explain them.

Or

(b) Explain briefly about Application Environment of WAP Architecture.

12. (a) Write about "do" element in WML.

Or

(b) Give an overview of Skeleton of WML.

13. (a) What are the different types of Statements in WML Script ?

Or

(b) Explain about automatic type conversion in WML Script.

14. (a) Compare the computer terminal with Mobile terminal while designing a WAP site.

Or

(b) How will you test an user Interface ?

15. (a) Write about WTA user Agent.

Or

(b) Discuss about network common libraries

AF-2415

Part - C (3 × 10 = 30)

Answer any **three** questions.

16. Give the functionality in end–to end WAP request.

17. Explain about input element in WML.

18. Discuss about the string operations in WML Script.

19. Give the WML design guidelines.

20. Explain with neat diagram the originating and terminating call model for a mobile client.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

First Semester

Computer Applications

PROGRAMMING IN C

(CBCS—2008 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1. Define Constant.

2. Write down the logical operators.

3. Define an array.

4. How can you read a single character from the terminal ?

5. What is recursion ?

6. How union differs from strucures in terms of storage ?

7. Write down any two benefits of using pointers.

8. What is the purpose of 'size of' operator ?

9. Define a file.

10. How can you undefine a macro ?

Answer **all** questions.

11. (a) Discuss about any three types of operators in C.

    (*Or*)

    (b) Compare 'while' with 'do' statements.

12. (a) Discuss about the initialization of two dimensional arrays with an example.

    (*Or*)

    (b) How can you perform arithmetic operations on characters ?

13. (a) Describe the form of 'C' functions.

(*Or*)

(b) Discuss about arrays within structures.

14. (a) How pointer expressions can be handled ?

(*Or*)

(b) Write a 'C' program using the concept of pointers.

15. (a) How files can be opened and closed ?

(*Or*)

(b) Write briefly about macros.

AF-2407

Answer any **three** questions.

16.   Describe the structure of a 'C' program with an example.

17.   Describe the usage of any three string handling functions with examples.

18.   Write a 'C' program to arrange the given numbers in ascending/descending order.

19.   Discuss about pointers as functions with an example.

20.   Discuss about error handling during input/output operations.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Second Semester

Computer Applications

PROGRAMMING IN C++

(CBCS—2008 onwards)

Time : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1. Name any four tokens available in C++.

2. What is inheritance ? What is the advantage of inheritance ?

3. What is the difference between a structure and a class in C++ ?

4. What is a constructor ? How do we invoke a constructor function ?

5. Describe the syntax of the single inheritance in C++.

6. What does 'this' pointer points to ?

7. Describe how would you determine number of objects in a file.

8. What is the difference between a template and a macro ?

9. What is an exception ? Give an example.

10. What is meant by Reliable code ?

Answer **all** the questions.

11. (a) Explain operator precedence and associativity.

(*Or*)

(b) Explain function overloading.

12. (a) Explain friend function with an example.

(*Or*)

(b) Explain copy constructor with an example.

13. (a) Explain the effect of inheritance on the visibility of members.

(*Or*)

AF-2408

(b)   What is a virtual function. Explain with an example.

14.   (a)   What is a file pointer ? Discuss the functions for manipulating them.

(Or)

(b)   Write a program that reads a text file and creates another file that is identical except that every sequence of consecutive blank space is replaced by a single space.

15.   (a)   Discuss the ten rules of handling exceptions successfully.

(Or)

(b)   Explain Reusable components.

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Part - C   (3 × 10 = 30)

Answer any **three** questions.

16.   Explain the basic concepts of object-oriented programming.

17.   Write a program to sum two complex numbers. (Use overloaded constructors)

18.   Discuss the syntax for creating user-defined manipulators. Design a single manipulator to provide the following output specifications for printing float values.

   (a)   10 columns width.

   (b)   Right justified.

   (c)   Two digits precision.

   (d)   Trailing zeros shown.

AF-2408

19. What is a function template ? Perform bubble sort using template functions.

20. Explain Booch's object oriented design.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Third Semester

Computer Applications

DATABASE MANAGEMENT

(CBCS—2008 onwards)

Time : 3 Hours　　　　　　　　　　　Maximum : 75 Marks

Part - A　　　　　　(10 × 2 = 20)

Answer **all** questions.

1. State the various categories of data model.

2. What are the components of a storage manager ?

3. State Boyce – Codd normal form.

4. What is denormalization ?

5. What is the purpose of transaction and data servers ?

6. State any four architectural models for parallel machines.

7. What is meant by Roles ?

8. What are the advantages of synonyms ?

9. Define Trigger.

10. What are the four attributes of a cursor ?

AF-2409

Part - B $(5 \times 5 = 25)$

Answer **all** questions choosing **either** (a) **or** (b).

11. (a) Discuss briefly about the Database-system applications.

(*Or*)

(b) Discuss about the basic issues in the design of an E-R database schema.

12. (a) Explain in detail about parallel database architectural models.

(*Or*)

(b) Discuss briefly about interquery and Intraquery parallelism.

13. (a) Explain the two techniques to store a relation in the distributed database.

(*Or*)

(b) Discuss in detail about query transformation, join and semijoin strategies.

14. (a) Discuss about the advantages and disadvantages of using a view.

(*Or*)

(b) Explain briefly about system and object privileges.

15. (a) Explain the control structures used in PL/ SQL.

(*Or*)

(b) Explain the steps involved in creating a cursor.

Part - C $(3 \times 10 = 30)$

Answer any **three** of the following.

16. Discuss briefly about the purpose of database systems.

17. Explain the features of good relational designs.

18. Explain briefly about transaction and data server systems.

19. Explain the features of oracle indexes and sequences in detail.

20. Discuss in detail about Triggers and its components in detail.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fourth Semester

Computer Applications

JAVA PROGRAMMING

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1. What is dynamic binding ?

2. What is called native methods ?

3. Give the general form of a simple 'if' statement.

4. What are the four steps in a general looping process ?

5. Define Class.

6. Define Interfaces.

7. What is a thread ?

8. What are the two categories of errors ?

9. What is URL ?

10. How applets uses the main ( ) method ?

AF-2410

Part - B (5 × 5 = 25)

Answer **all** questions. Choosing either (a) *or* (b).

11. (a) Explain the benefits of OOPS.

Or

(b) Explain the structure of a Java program.

12. (a) How Java operators are classified ? Explain any two classifications.

Or

(b) Explain switch statement briefly.

13. (a) Explain methods of overloading with example.

Or

(b) Explain commonly used string methods.

14. (a) How will you create packages ? Explain with example.

Or

(b) Explain exception handling mechanism with example.

15. (a) How applets differ from application programs ?

Or

(b) Write a applet code for drawing a human face.

Part - C (3 × 10 = 30)

Answer any **three** questions.

16. Explain the features of Java.

17. Explain decision making and looping statements in Java with example.

AF-2410

18. Explain vectors and wrapper classes in detail.

19. Explain the life cycle of a thread.

20. Explain the attributes of applet tag.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Applications

MULTI MEDIA

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A $(10 \times 2 = 20)$

Answer **all** the questions.

1. What is the use of Arrow tool ?

2. What is the use of Window menu ?

3. List any two basic object selection tools.

4. What is meant by current Layer ?

5. What is the ideal number of shape hints to use for a good Shape Tween ?

6. List any two better quality audio format to use for a original files.

7. List any two file formats supported by Photoshop.

8. Which is the most commonly used tool for retouching old images ?

9. Define type in Photoshop.

10. Define Filters.

Part - B (5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the Hierarchy of Flash Movie.

Or

(b) How to create and style text ? Explain.

12. (a) Differentiate Solid colours with Gradient colours.

Or

(b) Explain the four modes of Layers.

13. (a) How to make a Frame–by–Frame Animation ? Explain with example.

Or

(b) What causes the dotted line to appear in the green interpolated frames of shape Tween ? Explain.

3 AF-2411

14. (a) Explain the changes of Colour Mode.

Or

(b) State the usage of history Brush tool.

15. (a) How to move Layers between images ? Explain

Or

(b) Explain Custom Filter.

Part C (3 × 10 = 30)

Answer any **three** questions out of five.

16. Discuss the most common file types for flash to create interactive animation for the Web.

17. Explain in detail working with Frames.

18. How to add sounds and sound effects to an animation ? Explain.

19. Explain in detail the various forms of transformation of selection in Photoshop.

20. Explain Type in detail.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Applications

COMPUTER SYSTEM ARCHITECTURE AND DESIGN

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** the questions.

1. Subtract 13250 from 72532 using 2's complement.

2. What is register transfer language ?

3. State the purpose of IEN flipflop.

4. What are the fields available in an assembly language instruction ?

5. Define Control word.

6. Write the Reverse Polish Notation to represent the expression (A + B) * (C * (D + E) + F).

7. What do you mean by divide overflow ?

8. Why interfacing devices are introduced in system ?

9. What is content addressable memory ?

10. What is page fault ?

Answer **all** questions.

11. (a)   Construct a bus system using Tri–state buffers and explain.

Or

(b)   List the registers available in a basic computer organisation and state the purpose of each.

12. (a)   Demonstrate the interrupt cycle.

Or

(b)   Write an assembly language program to add 100 numbers.

13. (a) Describe the memory stack organisation.

Or

(b) Describe the major characteristics of a RISC processor.

14. (a) Describe the Booth multiplication algorithm.

Or

(b) Explain the Daisy Chain priority interrupt scheme.

15. (a) Draw the block diagram of RAM and explain.

Or

(b) Explain the match logic of an associative memory.

AF-2412

Answer any **three** questions.

16.   Design a one stage arithmetic circuit and explain.

17.   Draw the flowchart for second pass of assembler and explain.

18.   List out the data transfer instructions and state the purpose of each.

19.   How CPU and IOP communicated each other ?

20.   Describe the three types of mapping procedures available in Cache memory.

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B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Application

Elective—DATA MINING AND DATA WAREHOUSING

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1. What is a data warehouse ?

2. What is the function of Load Manager ?

3. What are three main features required for the management of backups ?

4. What is meant by capacity planning ?

5.   What is the use of regression ?

6.   What is meant by Data mining ?

7.   Mention the use of ER Model.

8.   Define MSE.

9.   What is meant by confidence ?

10. How do you define a correlation rule ?

AF-2413

Part - B   (5 × 5 = 25)

Answer **all** questions.

11. (a) Explain clean and data process within a data warehouse.

Or

(b) Describe the architecture of a query manager.

12. (a) Describe the responsibilities of warehouse manager.

Or

(b) Describe the method of tuning Ad–hoc queries.

13. (a) What are the two major types of data mining models ? Describe their tasks.

Or

(b) Write about data mining metrics.

3

14. (a) Write short notes on information retrieval.

        Or

    (b) Explain the use of Hypothesis testing in data
         mining.

15. (a) Describe the method of generating association
         rules using Argen algorithm.

        Or

    (b) Write about quantitative association rules.

                    Part - C   (3 × 10 = 30)

             Answer any **three** questions.

16. Explain the stages of data warehouse delivery
     process.

17. Explain the methods of estimating the load.

                        4

18. Discuss the implementation issues associated with data mining.

19. Discuss OLAP systems in detail.

20. Explain Apriori Algorithm with an example.

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AF-2413

B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Applications

ELECTIVE—WEB DESIGN TECHNOLOGY

(CBCS—2008 Onwards)

Duration : 3 Hours　　　　　　　　Maximum : 75 Marks

Part - A　　　　(10 × 2 = 20)

Answer **all** the questions.

1. What is the use of <P> tag ?

2. What is the use of ALIGN attribute ?

3. What are three types of control structure ?

4. What is the use of break statement ?

5. Differentiate Global and function scope.

6. What is an array ?

7. What is meant by dynamic positioning ?

8. What is the function of ONLOAD event ?

9. What is the use of Direct Animation path control ?

10. What is the use of EMBED element ?

Part - B (5 × 5 = 25)

Answer **all** the questions.

11. (a) Describe the use of tags sand attributes used for including images in a HTML Web page.

Or

(b) Write a script to create an un–ordered list.

12. (a) Describe the syntax of if/else structure with an example in Java script.

Or

(b) What are different assignment operators support in Jave script ? Explain.

13. (a) Describe the method of defining a function in Jave script with an example.

Or

(b) Explain the method of passing arrays to function in Jave script.

14. (a) Write about object referencing in DHTML.

Or

(b) Explain the function of image filters.

AF-2414

15. (a) Explain the method of binding data to an IMG element.

Or

(b) Explain the method of adding background sounds with the BG SOUND element.

Part - C (3 × 10 = 30)

Answer any **three** questions.

16. Explain the tags and attributes used for creating and formatting a table.

17. Explain the purpose and syntax of "for" structure with an example.

18. Write a Java script program to sort an array of elements.

19. Explain the functions of three mouse event models in DHTML.

20. Write a script to create different shapes with structured Graphics Activex control.

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AF-2414

B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Fifth Semester

Computer Applications

Elective—ADVANCED JAVA PROGRAMMING

(CBCS—2008 onwards)

Duration : 3 Hours   Maximum : 75 Marks

Part - A   (10 × 2 = 20)

Answer **all** questions.

1.   Write down the four constructors that can be used to create 'File' objects.

2.   What is Stream Jokenizer ?

3.   What is Scroll Panes ?

4.   Name any four sources of events.

5. How are controls added or Removed ?

6. What is meant by model dialog box ?

7. What is the purpose of IP ?

8. How are datagrams implemented in Java ?

9. What is Java Bean ?

10. What is Tomcat ?

Part - B   (5 × 5 = 25)

Answer **all** questions.

11. (a)   Explain Serialization in brief.

Or

(b)   Explain about Reader class.

12. (a)   Explain the Delegation Event Model.

Or

(b)   What is a tree ? How is a tree used in an applet ?

13. (a)   Explain Grid layout with an example.

Or

(b)   Discuss the constructors and methods of Text field.

AF-2416

14. (a) What are Inet Address ? How are they created ?

Or

(b) Explain URL class.

15. (a) Discuss the interfaces and classes defined in Jave beans.

Or

(b) What is a cookie ? With an example, explain how cookies are created ?

Part - C (3 × 10 = 30)

Answer any **three** questions.

16. Discuss the step–by–step procedure for building a simple client / server application by using RMI.

17. Explain how mouse events are handled. Write code wherever necessary.

AF-2416

18. How are Menus and Menu Bars created ?

19. Explain Datagram. Explain the classes for implementing it.

20. How are HTTP requests and responses ?

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AF-2416