AFN-1118 BCA1M2/BIT1M2/BCE2M3/BSO2M3

B.C.A./ B.Sc. DEGREE EXAMINATION

NOVEMBER 2010

Computer Science/Computer Application/I.T./Software

COBOL PROGRAMMING AND BUSINESS APPLICATIONS

(Non-CBCS—2004 onwards)

[Common for Computer Science/Computer Application/I.T./Software]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. What is an identifier ?

2. Give the general format of COMPUTE verb.

3. EXIT verb is used to indicate ————.

4. Define level number.

5. Write the general form of IF statement.

6. Say true or false :

   A table is a group of data consisting of different items.

7. ———————— is the name assigned to a file and is used for the purpose of its identification.

8. Name the four modes in which a file can be opened.

9. Say true or false :

   The IO control paragraph is optional.

10. When the sending field is numeric and the receiving field is numeric or numeric edited the data movement is called ————————.

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Write a program in COBOL to find the factorial of a given number.

12. Explain the character set in COBOL.

13. What is the use of MOVE verb in COBOL ? Give examples.

14. Explain GOTO with DEPENDING clause.

15. What is the use of INSPECT verb in COBOL ? Give the syntax and explain with an example.

16. Explain the simple SORT verb.

17. Explain the OPEN statement for sequential files in COBOL.

Part - C

$(5 \times 12 = 60)$

Answer any **five** questions.

18. Write in detail about FILE control entry for a sequential file.

19. Describe the Procedure Division statements for indexed file in COBOL.

20. Write a program in COBOL to generate the Fibonacci series.

21. Describe the PICTURE and VALUE clauses in COBOL.

22. Explain in detail the STRING verb in COBOL.

23. Give an example for variable length records in a sequential file and discuss it.

24. Describe the PERFORM verb in detail.

25. Discuss about the application of computers in Science and Technology.

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AFN-1119

BCA1M3/BCE1M3/
BIT1M3/BCO1M2

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Computer Application/Computer Science/I.T./ Software

DIGITAL ELECTRONICS

(Non-CBCS—2004 onwards)

[Common for Computer Application/Computer Science/ I.T./Software]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** the questions.

Choose the correct answer :

1. ———————— is an universal gate.

(a) NAND

(B) EX-OR

(c) EX-NOR

(D) NOT

2. The process of converting any symbol into binary form is known as ————————.

(a) Multiplexing

(b) Encoding

(c) Decoding

(d) Binary counting

3. Ring counter is a ————————.

(a) Combinational circuit

(b) Sequential circuit

(c) TTL circuit

(d) ECL circuit

4. ———————— is an unipolar transistor.

(a) NPN transistor

(b) PNP transistor

(c) FET

(d) None of these

5. Successive approximation method is used for ————————.

(a) A/D conversion

(b) D/A conversion

(c) Code conversion

(d) None of these

Fill in the blanks :

6. The number of symbols in a particular number system is known as ————.

7. A Multiplexer has 8-data input lines and ———————— data output line(s).

8. ————— counters are called as Ripple counters.

9. The I^2L basic gate is similar in operation to the ————————— gate.

10. ————————— is a measure of how close the actual output voltage is to the theoretical output value.

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Perform the following :

(a) $(1011.11)_2 - (110.1001)_2$ using 2's complement representation.

(b) $(53.75)_{10} - (972.8)_{10}$ using 9's complement representation

12. Design a Half adder and explain its operation.

13. Explain the working principle of 4-bit Ring counter.

14. Draw a block diagram of PLA and explain its principle.

15. Write a brief note on CMOS logic circuit.

16. Compare and contrast binary weighted method and R - 2R ladder method of D/A conversion.

17. Explain the accuracy and resolution of A/D conversion.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Explain the following Binary codes :

    (a) Gray codes

    (b) Error detection codes and

    (c) EBCDIC codes

19. Perform the following :

    (a) Simplify the function $F = \Sigma m\,(0, 2, 3, 4, 5, 6)$

    (b) Express the following function is canonical SOP form, F = A' B + C + B ' C

20. Design a 3 × 8 Decoder and explain its operation.

21. Describe the function of magnitude comparator with a neat diagram.

22. Explain the construction and working of JK flip-flop and enumerate its applications.

23. Construct the 4-bit Ripple counter and explain its operation using timing diagram.

24. Describe the operations of RTL and DTL circuits with neat sketches.

25. Discuss the working principle of successive approximation method of A/D conversion.

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AFN-1120

BCA2M2/
BIT2M2

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Computer Application/Information Technology

PROGRAMMING IN C

(Non-CBCS—2004 onwards)

[Common for Computer Application/Information Technology]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. An underscore is often used in middle of an ————————.

2. The control construct if-else comes under ————————— construct.

3. The argument used in a function call are called. ————————.

4. A pointer is a ———————— data type in C.

5. An array expression is usually written as a ———————— constant.

6. The ———————— operator returns the value of the variable to which its operand points.

7. The name of a structure is referred to as ————————.

8. There are ———————— types of logical bitwise operators.

9. The mode ———————— is used for opening a file for updating.

10. The action of connecting a program for a file is known as ————————.

Part - B

(5 × 6 = 30)

Answer any **five** questions.

11. List out the different types of constants in C Language. Explain.

12. Explain the switch statement with a suitable example.

13. Write a program in C to find the sum of individual digits of a 6 digit number.

14. What are the scope, storage and linkage of an static variable ? Explain with examples.

15. Write a brief note on pointers to a function.

16. Explain structures with in structure with an example.

17. Explain how to create a data file in C with an example.

Part - C

(5 × 12 = 60)

Answer any **five** questions.

18. Describe the simple and nested for loops with example.

19. Write a program to print the factorials of the numbers from 0 through 15 using functions.

20. Explain about library functions.

21. Write a program in C to sort the *n* numbers both in ascending and descending order using functions.

22. Write a program to print the 'Employee Pay bill' using structure.

23. What is Array ? Explain about multidimensional arrays.

24. Explain the differences between structure and unions with an example.

25. Explain the following :

    (i) Processing a data type.

    (ii) Dynamic memory allocation.

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AFN-1121 BCA331

B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Third Semester

Computer Application

SYSTEM ANALYSIS AND DESIGN

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** the questions.

1. ———————— is orderly grouping interdependent components linked together according to a plan to achieve a specific objective.

2. ———————— refers to the holism of system.

3. ———————— is an art and a science.

4. ———————— are factors that limit the solution of the problem.

5. ———————— is the most frequently used method for evaluating the effectiveness of a candidate system.

6. A ———————— is said to top-down if it consists of a hierarchy of modules.

7. From the DFD the next step is the definition of modules and their relationship to one another in a form called a ————————.

8. ———————— testing is testing changes made in an existing or a new program.

9. ————————— is used to mean the process of converting a new or a revised design into operational one.

10. ———————— means changing from one system to another.

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Explain the elements of a system.

12. What kind of information do we need ? Explain.

13. Write a short note on needs identification.

14. What is an interview ? Explain.

15. Explain the procedure to determine cost/benefits.

16. Explain the levels of quality assurance.

17. Explain the quality factor specification.

Part - C (5 × 12= 60)

Answer any **five** questions.

18. Explain the types of systems.

19. Discuss the features of data flow diagram.

20. Describe the major development activities.

21. Explain the fact-finding and fact analysis.

22. Explain the quality assurance in the system life cycle.

23. Explain the requirements of form design.

24. Describe the major phases in hardware and software selection.

25 Discuss the evaluation process of software and hardware.

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AFN-1123 BCA/BCE/BIT3M2/BSO2M2

B.C.A./ B.Sc. DEGREE EXAMINATION

NOVEMBER 2010

BASIC COMPUTER SYSTEM ARCHITECTURE AND DESIGN

(Non-CBCS—2004 onwards)

[Common for Computer Application/Computer Science/ I.T./Software]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** the questions.

1. The number of distinct symbols present in a particular number system is known as ————————.

2. ———————— is a program that accepts the symbolic language as its input and produces its equivalent binary machine language as its output.

3. A ———————— is a storage device that stores information in LIFO (Last-in, First-out) manner.

4. Expansion of BCD is ————.

5. A small very high speed memory used to increase the speed of processing is known as ————.

6. Define Micro operations.

7. What is the use of control unit ?

8. What is meant by Priority Interrupt ?

9. What is Pipelining ?

10. What do you mean by Primary memory ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Convert the decimal number 768 into binary and hexadecimal number system.

12. Write a brief note on floating-point representation.

13. Write a short note on Subroutines.

14. Enumerate the characteristics of RISC processors.

15. Explain the concept of Serial communication.

16. What is Virtual memory ? Explain.

17. Mention the characteristics of Multiprocessors.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Explain the operation of Timing and Control unit with neat diagram.

19. Explain the following :

    (a) Complements

    (b) Register Transfer Language

    (c) Instruction cycle.

20. Describe the Direct Memory Access Techniques.

21. Explain the Stack organisation with a neat diagram.

22. Discuss the Instruction pipelining with a suitable example.

23. Explain the Division algorithm for binary integers.

24. Describe the Associative memory with a neat sketch.

25. Discuss the Inter-processor communication and Synchronization.

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AFN-1124 BCA/BCE/BIT3M3/BSO3M3

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Computer Science/Computer Application/I.T./ Software

OBJECT ORIENTED PROGRAMMING IN C++

(Non-CBCS—2004 onwards)

[Common for Computer Science/Computer Application/ I.T./Software]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. What is the aim of object oriented programming ?

2. Define Object.

3. Write the equivalent to the manipulator endl.

4. Name the user-defined data types in C++.

5. What is dynamic initialization ?

6. State the use of new operator.

7. What is constructor ?

8. Define Abstract class.

9. Give the syntax of opening a file using open ( ).

10. What is meant by template ?

Part - B

(5 × 6 = 30)

Answer any **five** questions.

11. Explain the structure of C++ program.

12. What is inline function ? Explain with its syntax.

13. What is function overloading ? Explain its principles.

14. How many ways operator overloading is achieved ? Give its syntax. Explain.

15. Write a note on type conversion.

16. Explain how do you implement single inheritance with help of a program.

17. What is Function template ? Give an example.

Part - C

(5 × 12 = 60)

Answer any **five** questions.

18. Discuss the differences between POP and OOP paradigms.

19. Write a program to pass object as an argument to a function.

20. What is friend function ? Write a program to overload '*t*' operator to add two distance class objects. Distance class consists of two data members namely int feet and int inches.

21. Explain different kinds of constructors in C++.

22. Discuss on inheritance and its various types.

23. Write a program to implement runtime polymorphism.

24. Explain the steps of file operations.

25. Discuss the principles of exception handling.

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AFN-1125

BCA4M1/BIT4M1

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Fourth Semester

Computer Applications/I.T.

PROGRAMMING IN JAVA

(Non-CBCS—2004 onwards)

[Common for Computer Applications/I.T.]

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. Expand JVM.

2. Smallest individual units in a program are known as ————————.

3. An expression which combines two or more relational expressions is termed as ————————.

4. Lis out the three constructs for performing a loop operation.

5. Define a class.

6. What is an array ?

7. What is a package ?

8. A ———— that is ready for execution and is waiting for availability.

9. List out the tools required to run an applet.

10. What is the purpose of graphics class ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Distinguish between Data abstraction and Data encapsulation.

12. List out the differences between C and Java.

13. In what ways do a Switch statement differ from an IF statement.

14. Write short notes on (i) Multiple Inheritance (ii) Hierarchical Inheritance.

15. What is a vector class ? List out the various vector methods available in Java.

16. What is static import ? How is it useful in Java ?

17. Explain the steps involved in loading and running a remote applet.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Explain, with a flowchart, how various Java tools are used in the application development.

19. Write a program to convert the given temperature in Fahrenheit to Celsius.

20. Write short notes on (i) While statement (ii) Switch statement (iii) Do statement.

21. Differentiate between method overloading and over riding method.

22. Prepare a student information system using classes in a package.

23. Write an applet program which displays factorial of a given number.

24. Discuss the different stages of life cycle of an applet.

25. Write short notes on (i) Constructor (ii) Destructor.

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AFN-1126

BCA/BCE4M2
BSO3M2

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

B.C.A./B.Sc. Computer Science and B.Sc Software

COMPUTER ORIENTED NUMERICAL METHODS

[Common for B.C.A./B.Sc. Computer Science and B.Sc Software]

(Non-CBCS—2004 onwards)

Duration : 3 Hours Maximum : 100 Marks

Section - A (10 × 1 = 10)

Answer **all** questions.

1. State the iterative formula for Newton-Raphson method.

2. If the root of $x^3 - 4x + 1 = 0$ lies between 0 and 1 then find the first approximate root by Regula Falsi method.

3. Write the normal equations to fit a line $y = a + bx$.

4. Write the observation equation when the equation $y = ax + b$ is fit by the method of moments.

5. Prove that $E = 1 + \Delta$.

6. Define central difference operator δ.

7. State Newton's backward interpolation formula.

8. What is the Lagrange's formula to find $y(x)$ if three sets of values (x_0, y_0), (x_1, y_1) and (x_2, y_2) are given.

9. Given $\frac{dy}{dx} = x + y, y(0) = 1$ find $y(0.1)$ by Euler's method.

10. State the fourth order Runge-Kutta formula to find the numerical solution of the first order differential equation.

Section - B (5 × 6 = 30)

Answer any **five** questions.

11. Find the positive root of $x^3 - 2x - 5 = 0$ by Regula Falsi method correct to 4 decimal places.

12. Solve the following system of equation by Gauss Jordan method.

$$x + 2y + z = 3$$
$$2x + 3y + 3z = 10$$
$$3x - y + 2z = 13$$

13. Fit a straight line to the following data using the method of least squares.

x	:	0	5	10	15	20
y	:	7	11	16	20	26

14. Apply Lagrange's formula inversely to obtain the value of x corresponding to $y = 85$.

x :	2	5	8	14
y :	94.8	87.9	81.3	68.7

15. Evaluate $\int_0^1 \frac{x^2}{1+x^3}\,dx$ using Simpson's $\frac{1}{3}$ rule with $n = 0.25$.

16. Find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ at $x = 0.5$ from the following data.

x :	0	1	2	3	4
$y(x)$:	1	1	15	40	85

17. Using Picard's method solve $\frac{dy}{dx} = 1 + xy$ with $y(0) = 2$.. Find $y(0.1)$, $y(0.2)$ and $y(0.3)$.

Section - C (5 × 12 = 60)

Answer any **five** questions.

18. (i) Find by Newton-Raphson method correct to 4 places of decimals the root between 0 and 1 of the equation $3x - \cos x - 1 = 0$.

(6)

(ii) Perform six iteration of the bisection method to obtain the smallest positive root of $x^3 - 5x + 1 = 0$.

(6)

19. Solve the following system of equations by Gauss Jacobi method.

$$8x + y + z = 8$$
$$2x + 4y + z = 4$$
$$x + 3y + 5z = 5$$

20. Find the eigenvalues and eigenvectors of the

matrix $A = \begin{pmatrix} 1 & \sqrt{2} & 2 \\ \sqrt{2} & 3 & \sqrt{2} \\ 2 & \sqrt{2} & 1 \end{pmatrix}$ using Jacobi's method.

21. From the table given below find $f(142)$ and $f(175)$ using Newton-Gregory inter polation formula.

x :	140	150	160	170	180
$y = f(x)$:	3.685	4.854	6.302	8.076	10.225

22. Using the following table, apply Gauss's forward formula to get $f(3.75)$.

x :	2.5	3.0	3.5	4.0	4.5	5.0
$f(x)$:	24.145	22.043	20.225	18.644	17.262	16.047

23. Evaluate $\int_0^1 \frac{dx}{1+x^2}$ using Romberg's method.

24. Using Milne's method find y(2) given $\frac{dy}{dx} = \frac{1}{2}(x + y)$ given $y(0) = 2$, $y(0.5) = 2.636$, $y(1) = 3.595$ and $y(1.5) = 4.968$.

25. Using Runge-Kutta method of fourth order, solve $\frac{dy}{dx} = x^2 - y$ with $y(0) = 1$ at $x = 0.2$ taking $h = 0.1$.

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AFN-1127

BCA/BCE4M3/BIT233/ BSO5M2

B.C.A./B.Sc. DEGREE EXAMINATION NOVEMBER 2010

Common for Computer Applications / Computer Science / Information Technology/Software

OPERATING SYSTEMS

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. Define Operating System.

2. What is multiprogramming ?

3. What is mutual exclusion ?

4. List three explicit interprocess interactions.

5. What do you mean by memory management?

6. What is block?

7. List any two file system commands.

8. Define Seek time.

9. What is program counter ?

10. What is the UNIX command used to create directory ?

Part - B

(5 × 6 = 30)

Answer any **five** questions.

11. Explain different views of operating system.

12. Explain different types of scheduling.

13. Explain the condition for deadlock.

14. Briefly explain the memory allocation.

15. Write short notes on disk controller.

16. Give a brief note of computer viruses.

17. What is the need to protect the computer? Explain.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Discuss any two scheduling algorithms.

19. Discuss the process concept.

20. Explain the need for interprocess synchronization.

21. Explain queuing implementation of semaphore.

22. Discuss :

(a) Swapping . (b) Relocation.

23. Explain the purpose of authentication in detail.

24. Explain the multiprocessor system.

25. Discuss the different features of UNIX.

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AFN-1128

BCA4M4/BCE4M4/ BSO3M1

B.C.A. / B.Sc. DEGREE EXAMINATION NOVEMBER 2010

Common for Computer Applications / Computer Science /Software

DATA STRUCTURES, ALGORITHMS AND APPLICATIONS

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. Define an Algorithm.

2. Define Time complexity.

3. What are the three fields in doubly linked lists ?

4. What is a Node ?

5. What do you mean by In-order traversal ?

6. What is a space matrix ?

7. Define Merge sort.

8. Define Inheritance.

9. What is the principle of Divide and Conquer method ?

10. What is the principle of branch and bound method ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Briefly, explain about two way linked lists with an example.

12. How does C++ support abstract data types ?

13. Explain the advantages of linked lists over arrays.

14. Write short notes on :

(i) Pre-order traversal.

(ii) Post-order traversal.

15. Explain travelling salesman problem with an example.

16. Briefly explain about Kruskal's algorithms with an example.

17. What is back tracking ? Explain with an example.

Part - C

(5 × 12 = 60)

Answer any **five** questions.

18. Discuss on different types of inheritance. How they are implemented in C++ ?

19. What is a stack ? Explain the various operations of stack with examples.

20. Explain any two searching techniques with examples.

21. Explain in detail about single source shortest path (Dijkstra's algorithm).

22. Discuss any one problem that can be solved using dynamic programming technique.

23. Explain minimum cost spanning trees.

24. Explain quick sort algorithm with an example.

25. Write short notes on

    (i) Maximum and Minimum

    (ii) FIFO branch and bound solutions.

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AFN-1130

BCA5M1/BCE5M1/ BIT5M1/BSO5M1

B.C.A./B.Sc. DEGREE EXAMINATION NOVEMBER 2010

Fifth Semester

Computer Application/Computer Science/ I.T./Software

DATABASE MANAGEMENT SYSTEM

(Common for Computer Application/ Computer Science/I.T./Software)

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. List out the different types of database users.

2. What is superkey ?

3. Define strong entity set.

4. What is functional dependencies ?

5. Define inheritance.

6. List out the two parts of the ODMG C + + extension.

7. What is flash memory ?

8. List out the two types of ordered indices.

9. List out the two possible recovery procedures.

10. What are the two types of network ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Write any five functions of DBA.

12. Briefly explain the major components of an E–R diagram.

13. Explain the formal definition of Domain Relational Calculus.

14. Explain the modifications of database of QBE.

15. Explain nesting relations in Object Relational Database.

16. Explain about B–Tree Index Files.

17. Explain the recovery with Concurrent Transactions.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Explain the disadvantages of a File Processing System.

19. Write a detailed note on Mapping Constraints.

20. Explain the fundamental operations in Relational Algebra.

21. Explain the feature of QUEL in detail.

22. Explain the Querying with Complex types.

23. Describe the storage structures of object – oriented Databases.

24. Explain Static Hashing.

25. Describe Parallel Systems.

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AFN-1131

BCA/BCE/BIT5M2-BSO6M3

B.C.A. /B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Computer Applications,

Computer Science / Information

Technology Software

COMPUTER NETWORKS

Common for Computer Applications/
Computer Science / IT / Software

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. Define Multiprogramming.

2. Define process.

3. What do you mean by critical section ?

4. What is semaphore ?

5. Define page.

6. What is Virtual Memory ?

7. Define interrupt.

8. What is Transport Layer Protocol ?

9. What is UNIX command used to delete a particular file?

10. What is the purpose status register?

Part - B (5 × 6 = 30)

Answer any **five** questions.

ll. Explain batch processing system

12. Explain the need for interprocess synchronization.

13. What is internal and external fragmentation? Explain.

14. Write a note on disk organization.

15. Explain access-matrix model of protection.

16. Give a brief note on cryptography.

17. Briefly explain various multiprocessor operating systems.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Discuss any two scheduling algorithms .

19. Explain queuing implementation of semaphore.

20. Discuss

(a) Swapping.

(b) relocation

21. Discuss the security policies and mechanism in detail.

22. Explain the following

(a) Password.

(b) Biometric Techniques.

23. Discuss the types of worms and viruses.

24. Explain the interrupt driven I/O.

25. Discuss the different features of UNIX.

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AFN-1132

BCA 5M3/BIT 5M3/BSO 5M3

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Fifth Semester

Common for Computer Applications/I.T./Software

COMPUTER GRAPHICS AND MULTIMEDIA SYSTEMS

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Section - A (10 × 1 = 10)

Answer **all** questions.

1. Video games represent the First Major use in the game of.

   (a) Computer Graphics

   (b) Computer System

   (c) Computer Network

   (d) All the above.

2. The simple ———— is an ideal basic for a software line generator.

(a) DDE (b) DDA

(c) DAD (d) ADD.

3. DVST stands for ————.

(a) Direct View Storage Tube

(b) Direct View Storage Tape

(c) Direct View Stack Tape

(d) Direction View Storage Tube.

4. Picture definition is stored in a memory area called ————.

(a) Refresh Buffer

(b) Resolution

(c) Pix Map

(d) CRT

5. The basic geometric structure generator is referred to ————.

(a) O/P Primitives

(b) Frame buffer

(c) I/P Primitives

(d) Filled–area Primitives.

6. The Maximum number of points that can be displayed without overlap on a CRT is called ————.

(a) Stain case effects

(b) Quantization effects

(c) Pixels

(d) Resolution.

7. Plasma pannel is also called ————.

(a) Random scan display

(b) Raster scan display

(c) Gas Dischanged display

(d) None.

8. Each position in the frame buffer is called———— .

(a) Picture element (b) PEL

(c) (a) and (b) (d) None

9. Each horizontal line of picture is referred to as ————.

(a) Frame (b) Scan line

(c) PEL (d) None.

10. PHIGS stands for ————.

(a) Programme–Hybrid Interactive Graphics Standard

(b) Program Hyber Interactive Graphics Standard

(c) Part Hierarical Interactive Graphics Standard

(d) Programmer–Hierarical Interactive Graphics Standard.

Section - B (5 × 6 = 30)

Answer any **five** questions.

11. Describe in detail the Bresenham's algorithm.

12. Explain the concept of windowing transformation.

13. Describe in detail the visible surface determination.

14. Write a note on advanced Raster Graphics Architecture.

15. Explain Multimedia and the use of Multimedia information.

16. Explain in detail the audio–video representation and processing.

17. Describe the operating system support for continuous Media application.

Section - C

(5 × 12 = 60)

Answer any **five** questions.

18. Explain the line drawing Algorithms in detail.

19. Explain any two Display devices.

20. Describe the three dimensional input devices.

21. Explain the representation of Raster Images.

22. What is Input device ? Explain the various types of input devices.

23. Describe in detail MIDI versus Digital Audio.

24. Explain the various basic software tools for Multimedia.

25. Describe about the Multimedia and the Internet.

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AFN-1133 **BCA632**

B.C.A. DEGREE EXAMINATION, NOVEMBER 2010

Sixth Semester

Computer Applications

COMPUTERS IN BUSINESS APPLICATIONS

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. The raw facts on figures are known as ————.

2. E-mail stands for ————.

3. ———— is machine - readable code consisting of vertical bars of varying widths that are used to represent data.

4. DBMS means ————.

5. DSS stands for ————.

6. Expand the term MIS.

7. What is called pixel ?

8. Define Robotics.

9. List any two important qualities of a project.

10. What is called Multimedia ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Write short notes on Expert System.

12. Discuss the needs of computers in Business.

13. What is called Project Management ? Explain.

14. Illustrate the use of computers in Insurance Company.

15. Discuss the need of Computers in Production Management.

16. List the advantages of using computers in Media.

17. Explain the need of Computers in Materials Management.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Write an essay about Decision - Support - System [DSS].

19. Discuss the use of Computers in Cost and Budgetary control system with examples.

20. Explain the role of computer in Payroll processing with examples.

21. Discuss the features of accounting package.

22. Explain the use of computer in communication.

23. Discuss the role of computers in Science and Technology.

24. Explain the role of Computer is Purchasing Credit Control system.

25. Write an essay about the use of Computers in Advertising Companies.

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AFN-1134 BCA/BCE/BIT/BSO6M1

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Sixth Semester

Computer Science/Computer Application/
I.T./Software

SOFTWARE ENGINEERING

(Common for Computer Science/Computer Application/I.T./Software)

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. Define the term Software Engineering.

2. Define and expand the term SRS.

3. What are the three levels of product complexity ?

4. What do you mean by Software reliability ?

5. What is DFD ?

6. Who developed SADT ?

7. Define the term Abstraction.

8. What is Cohesion ?

9. What do you mean by validation ?

10. What is debugging ?

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Explain the factors that influence quality and productivity.

12. Write short notes on any two team structures.

13. Explain Regular Expressions.

14. Describe structured analysis and design technique.

15. Define and explain coupling.

16. Explain HIPO diagrams and structure charts.

17. Explain the concept of Integration testing .

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Describe the phased life cycle model and cost model of software development process.

19. Explain the major factors that influence the software cost.

20. Explain Cocomo model of cost estimation.

21. Discuss various languages and processors used for requirement specification.

22. Explain the various fundamental design concepts in Software Engineering.

23. Describe Jackson structured programming.

24. Explain in detail Software Quality Assurance.

25. Explain the managerial aspects of Software maintenance.

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AFN-1135 **BCA/BCE 6M3**

B.C.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2010

Sixth Semester

Computer Applications / Computer Science

INTERNET CONCEPTS AND MARKUP LANGUAGES

(Common for Computer Applications/Computer Science)

(Non-CBCS—2004 onwards)

Time : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

State True *or* False :

1. <PRE> tag is a preformatted text tag.

2. <HI> tag gives the biggest font size while <H6> gives the smallest font size.

3. <SAMP> used to render examples and program code output.

4. The GIF images cannot be put together to create an animation sequence.

5. <INPUT> tag is used to provide an elegant user interface mechanism.

6. <ID> it encloses the cell contents and is a mandatory tab.

7. <IFRAME> tag is used to create floating frames.

8. CSS file is linked with the <TEXT> tag.

9. <SCRIPT> tag is used to embed a specific scripting language to the HTML document.

10. <COL> tags group the content of the table vertically.

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Explain the features of images.

(i) GIF

(ii) Transparency

(iii) Interfacing

(iv) Animation

(v) JPEG

(vi) PNG

12. Explain about creating frames.

It is done by creating separate panes in browser window and these separate panes are called FRAMES <FRAMESET> tag is used for creating frames.

13. Explain about using object tag.

Adding image file

Adding a video file.

14. Explain the ways to use XML.

XML 1.1 does several things, one of them marginally useful to a few developers, the rest actively harmful.

(i) It expands the set of character allowed as name characters.

(ii) The C0 control characters (except for NUL) such as form feed, verti–cal tab, BEL, and DCI through DC4 are now allowed in XML text provided they are escaped as character references.

(iii) The C1 control characters (except for NEL) must now be escaped as character references.

(iv) NEL can be used in XML documents but it resolved to a line feed on parsing.

(v) Parsers may (but do not have to) tell client applications that Unicode data was not normalized.

(vi) Namespace prefixes can be undeclared.

15. List out the uses of hyperlinks.

– Connecting to other HTML

– Embedding objects

– Connecting to non–HTML resources

– Supplying additional information

16. Write short notes on color attributes with examples :

(i) BG COLOR

(ii) The syntax <TD> <FONTCOLOR =" YELLOW"> YELLOW </FONT>

17. Write short notes on Inline style sheets :

(i) The <P> tag and the <SPAN> tag are used with inline styles.

(ii) Syntax <PSTYLE = "FONT = SIZE : PT"> the text </P>

Part - C

(5 × 12 = 60)

Answer any **five** questions.

18. Explain about the issues faced by HTML documents.

Learning Curve, Appearance, Maintenance and Timeliness, Security, Copyright Issues, Cost

19. Describe briefly about the hyper text and hypermedia.

– Uses of hyperlinks

– Creating hyperlinks

– Internal links

– Changing the color of the links.

20. Explain about the client side and server slide image maps.

Client side image maps are handled within the browser. <IMG SRC " IMAGE. GIF", USEMAP = IMAGENAME"> The < are a > tag used with < map > tag delineates the hyperlink and the shape and co-ordinals of its corresponding hotspot in the image.

21. Explain briefly about structure of the XML documents with examples :

- Netline of an XML
- Prolog
- Version declaration
- DTD
- <root>
- Body
- <root>

22. Describe briefly about creating user interface :

(i) <FORM> is tag :

(ii) Method : takes POST and GET as its value

(iii) POST : used to submit the data

(iv) GET : submission the data is attached with the URL

23. Describe briefly about the form elements in HTML.

TYPE, TEXT, SIZE, CHECKBOX, CHECKED, RADIO, SUBMIT, RESET, PASSWORD, NAME, VALUE.

24. Define Meta tag ? Explain the usage of <META> tag HTML.

It is used to provide information such as document expiration date, document author and document keyboards for use of search engines.

25. Write short notes on :

(i) Embedded style sheets.

(ii) Cascading style sheets.

– Embedded style sheets : The method enables the designer to control individual pages by using the <STYLE> tag H { FONT. FAMILY : FAMILY ; COLOR : FFFDO }

– Cascading style sheets : it is called as linked style sheets because of all the style definitions are placed in one tile and the actual HTML page creates a link to it when the page is loaded. LINK. CSS.

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AFN-1136

BCA/BIT6M4

B.C.A./B.Sc. DEGREE EXAMINATION
NOVEMBER 2010

Sixth Semester

Computer Science/IT

LINUX PROGRAMMING

(Non-CBCS—2004 onwards)

[Common for Computer Science /IT]

Duration : 3 Hours Maximum : 100 Marks

Part - A (10 × 1 = 10)

Answer **all** questions.

1. The root directory is devoted by a symbol ————

2. Pwd stands for ————.

3. The ———— command is used to remove or erase an existing file.

4. 'Grep' stands for ————.

5. To change the permissions on a file or directory using the ———— system call.

6. The ———— command helps to keep track of our days.

7. The ———— command is a null command.

8. A superuser can change the owner of a file using the ———— system call.

9. ———— cannot be used as arguments to signals and slots.

10. The ———— function writes a character to an output filestream.

Part - B (5 × 6 = 30)

Answer any **five** questions.

11. Explain the three modes of 'Vi' editor.

12. Explain the following linux commands

    (i) expr. (ii) print f.

    (iii) set. (iv) shift.

13. Explain linux file structure.

14. Write a short notes on variables and rules for defining the shell variables.

15. Define shell. What is the need of shell programming ? Explain.

16. What is process ? Explain the process table.

17. Write a short note on GNome Widgets.

Part - C (5 × 12 = 60)

Answer any **five** questions.

18. Explain the following :

(i) Boot loader (Grub)

(ii) Multitasking.

19. Discuss on controlling access to directories and files.

20. Explain compiling and installing the Kernel.

21. (i) Write a shell script to find the biggest in two numbers using control statements.

(6)

(ii) Explain the 'for' loop structure with examples.

(6)

22. Discuss various C-API libraries in linux.

23. Discuss the general purpose linux commands and file commands with suitable examples.

24. Discuss message Queues in detail.

25. Describe creating a database and tables in MySQL.

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