BCA Part-1 Examination, 2009
DATA STRUCTURE AND ALGORITHM

Time allowed: Three Hours
Maximum Marks: 50

Attempt any five questions. All questions carry equal marks.

1. What do you understand by the term 'Data Structure'? Explain different types of 'Data Structures'. 10
2. What do you understand by matrix? Explain different operations performed in it. 2+8
3. What do you understand by File Organization? Differentiate between sequential and indexed sequential file organization? 4+6
4. (i) Differentiate between circular linked list and simple linked list. 4
   (i) Differentiate between queues and stacks. 4
   (ii) Differentiate between Bubble sort and Insertion sort. 2
5. Write down algorithm of bubble sort. 10
6. What is hashing? Explain different methods of it. 2+8
7. What are graphs? Explain the following terms associated with graphs: 3+7
   a) Directed edge
   b) Mixed graph
   c) Multigraph
   d) Path
   e) Loop
   f) Weighted graph
   g) Connected graph
8. What is Binary tree? Explain the following operations in relation with Binary Search tree: 10
   (i) Searching
   (ii) Traversing
9. (i) What are queues? How are they different from arrays? 5
   (ii) How does an item deleted from queues? Explain. 5
10. What do you understand by the term 'recursion'? Explain with suitable example. 10

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BCA Part-1 Examination, 2009
MULTIMEDIA BASIC

Time allowed: Three Hours
Maximum Marks: 50

Attempt any five questions. All questions carry equal marks.

19. Write short notes on the following:
    (i) Compression and Decompression
    (ii) Intelligent Multimedia Devices
    (iii) Morphing
    (iv) Advantages of Multimedia 2.5*4=10
20. Explain framework for multimedia with their all elements. How it support, design to a multimedia system. 10
21. (a) How Multimedia Beneficial in Teaching? Define it uses in Home and Medical Sector also. 5
    (b) Write short on Speech Recognition and speech synthesis. 5
22. (a) What is website and web pages? How it can create and display in Web Browser? Explain Web Browser in detail. 5
23. What is user interface? Explain all types of Multimedia user Interface. 10
24. (a) How many types of Multimedia Law? Define each in detail. 5
    (b) Explain TV Tuner card and Infrared in brief. 5
25. Explain the following tages of HTML:
    (i) IMG SRC
    (ii) PRE
    (iii) Marquee
    (iv) Frameset
    (v) Table 2*5=10
26. Write HTMLCode for the following output: 10

STUDENT RECORD

College of Information Technology							
BCA I		BCA II		BCA III		PGDCA	
Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
20	18	34	12	32	23	14	25

BCA Part-1 Examination, 2009
PC SOFTWARE

Time allowed: Three Hours
Maximum Marks: 50

Attempt any five questions in all, selecting **one** question from each Unit. All questions carry equal marks.

Unit 1

1. (a) What is windows application? How do you performed the work following in the windows operating system?
   (i) Cut, Copy and Paste
   (ii) Create a folder and hide it
   (iii) Formatting a floppy disk 2+2+2+2=8
   (b) Explain the concept and advantage of GUI 2
2. (a) Explain the features of Recycle Bin. 3
   (b) Describe the tearm GUI. Write down the components of windows explorer. 4
   (c) What is screen saver? Explain its utility. 3

Unit II

3. (a) Explain the following in MS-Word:
   i. Mirror margins
   ii. Auto correct
   iii. Drop cap
   iv. Header & Footers 5
   (b) Write various functions used in MS-Word. 5
4. (a) Which option allowes us to send one letter to multiple persons? Give the steps for the same. 1+4=5
   (b) Explain the following:
   (i) Formatting paragraph
   (ii) Find and replace text $2^1/_2+2^1/_2=5$

Unit III

5. (a) What is spreadsheet? Explain various features of MS-Excel. 1+4=5
   (b) What is the use of fill command in Excel? Explain fill series option. 2+3=5
6. (a) How many types of graphs available in MS-Excel? Explain. 5
   (b) Describe the basic features of functions in MS-Excel. Explain any five functions available in MS-Excel.
   $2^1/_2+2^1/_2=5$

Unit IV

7. What is the role of power-point in the computer application? Write down the step to prepare and show a slide with a suitable example. 5+5=10
8. (a) Describe the various views available for seeing the presentation on screen in Power-Point. 5

(b) Write short notes on Formatting and Customizing slide presentation. 5

Unit V

9. (a)What are the various elements of an access database? 5

(b) Differentiate between primary key, foreign key, candidate key and unique key with example. 5

10. (a) explain forms. Discuss the different tools used in forms design. 5

(b) explain the following in MS Access with example:

(i) solvez
(ii) filter
(iii) query
(iv) report $(4*1^1/_4)=5$

BCA Part-1 Examination, 2009
PC SOFTWARE

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(ii) filter
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(iv) report $(4*1^{1}/_{4})=5$

BCA Part-1 Examination, 2009
FUNDAMENTALS OF C PROGRAMMING

Time allowed: Three Hours
Maximum Marks: 50

Attempt any five questions. All questions carry equal marks.

1. Explain why C is a popular language. Describe the basic structure of a C program.
2. (a) What are tokens? Explain in short.
   (b) What is operator precedence? Explain its associativity.
3. (a) Differentiate conditional and unconditional branching. Explain unconditional branching with suitable example.
   (b) An electrical power distribution company charges its domestic consumers as follow:

Consumptions units	**rate of charges**
0-200	Re. 0.50 per unit
201-400	Rs. 100 plus Re. 0.65 per unit excess of 200
401 – 600	Rs. 230 plus Re. 0.80 per unit excess of 400
601 and above	Rs. 390 plus Re. 1.00 per unit excess of 600

   Write a program to read the consumer number and power consume and print the amount to be paid by the consumer.
4. (a) What is control structure? How can we classified it? Draw the flowchart of it.
   (b) Write a program using a do……..while loop to print the Fibonacci series.
5. (a) write a program to print the Pascal's triangle:

```
1
1  1
1  2  1
1  3  3  1
1  4  6  4  1
1  5  10 10 5  1
```

   (b) What is array? Explain one dimensional array with example.
6. (a) What is recursion? Write a program to calculate the factorial of a given number using recursion.
   (b) Explain the difference between 'call by value' and 'call by reference'. Explain with suitable example.
7. What is storage class? Explain each with suitable example.
8. Differentiate structure and union. Define a structure personal that would contain person name, date of joining and salary. Using this structure, write a program to read this info for one person and print the same on the screen.
9. What is pointer? How are they useful for us? Write a program to accept 10 elements of an array (type integer) and display them in ascending order using pointers.
10. (a) What are basic file operations? Explain with syntax.
    (b) Write a program that will receive a file name and a line of text as command line argument and write the text to the file