BCA 1st SEMESTER EXAM., 2014
PROBLEM SOLVING AND PROGRAMMING CONCEPT CODE - 303106

Time: 3 hours Full Marks: 60

Instructions:

i. The Marks are indicated in the right -hand margin.
ii. There are ***SEVEN*** questions in this paper.
iii. Attempts ***FIVE*** question in all.
iv. Question Nos. ***1*** and ***2*** are compulsory.

1. Answer any six of the following as directed: 2*6=12

(a) What is algorithm?

(b) What is data type?

(c) What is variable?

(d) What is expression?

(e) What is file?

(f) What is subscripted variable?

(g) What is sorting? Give the name of two sorting techniques.

(h) Define local variable.

(i) What is the sequential logic structure?

(j) Define nested loop.

2. Answer any three of the following: 4*3=12

(a) Explain the six steps of problem solving.

(b) What is meant by coupling modules? Explain.

(c) How do you use a decision table? Explain.

(d) What is recursion? Explain.

(e) Differentiate between primary key and secondary key.

Answer any three of the following: 12*3=36

3. How are problem solving and programming concept useful in medical applications? Explain.

4. What is cohesion? Explain the different types of cohesion.

5. What is repeat/until loop? Write the algorithm for finding the average age of class. Also draw the flowchart of it.

6. Explain call by value and call by reference with suitable example.

7. Explain shell sort with example. Write algorithm of shell sort. Also draw the equivalent flowchart of it.

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