B.C.A.- I (CBCS Pattern) Semester-I

UBCAT104 - Paper-IV - Programming Tools and Techniques

P. Pages : 2 **GUG/S/25/11746**

Time : Three Hours * 1 7 5 5 * Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram and use supporting data wherever necessary.
3. Avoid vague answers and write specific answers related to question.

Either:

1. a) Explain following programming languages. **8**
i) Object Oriented. ii) Event Driven.

b) Define translator. Explain its types. **8**

OR

c) Write a note on: **8**
i) Loader ii) Linker.

d) What do you mean by generation of languages? Explain any two generations. **8**

Either:

2. a) Define flowchart. Explain different symbols for flowchart. **8**

b) Explain different stages of program development life cycle. **8**

OR

c) Write an algorithm and draw a flowchart to swap two number without using third variable. **8**

d) Write a note on: **8**
i) Brute force algorithm. ii) Divide and conquer algorithm.

Either:

3. a) What is the purpose of the following jump construct? **8**
i) Continue ii) Break.

b) Define datatypes. Explain different types of datatypes. **8**

OR

c) Write an algorithm and draw a flowchart to check whether year is leap or not. **8**

d) Explain with example following conditional statements. **8**
i) If ii) If ------ else.

Either:

4. a) Define one dimensional array. Draw and explain one-dimensional array representation. **8**

b) What is searching? Explain Linear search. **8**

OR

c) Write a note on double dimensional array. **8**

d) List the various operations on the array. Explain each of them. **8**

5. Solve all the questions.

a) Enlist the characteristics of a Good Programming languages. **4**

b) Explain sequential process. **4**

c) Describe any two types of operators with example. **4**

d) explain bubble sort techniques. **4**

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