Bachelor of Computer Application (B.C.A.-I) (CBCS) First Semester CBCS
## UBCAT104 – Programming Tools and Techniques Paper – IV

P. Pages : 2

Time : Three Hours

**GUG/W/18/11746**

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Max. Marks : 80

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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 answer related to questions.

**1.** Either :

a) What is translator? Explain compiler in detail. **8**

b) Explain Machine level language in detail. **8**

**OR**

c) Differentiate between compiler and interpreter. **8**

d) Write notes on : **8**

    i) Linker                  ii) Loader

**2.** Either :

a) What is problem and process analysis? Explain. **8**

b) What is algorithm? Write an algorithm to add three numbers. **8**

**OR**

c) What are different symbols used to draw a flow charts? Explain them. Also draw a flowchart to interchange values of two variables. **8**

d) Explain term complexity of algorithm. Also explain Big – O – Notation. **8**

**3.** Either :

a) What is an identifier? What are rules' of naming identifiers? **8**

b) Draw flowchart and write an algorithm to find factorial of given number. **8**

**OR**

c) Explain different types of operators also explain their precedence. **8**

d) Draw a flowchart and write an algorithm for finding largest among the three numbers. **8**

**4.**  Either :

a)  Draw a flowchart and write an algorithm to find largest element of an given array. **8**

b)  What is Sorting? Write an algorithm to sort an array in ascending order. **8**

**OR**

c)  What is an array? Explain Single – Dimensional array. **8**

d)  What is Modular Programming? Explain its advantages of using it. **8**

**5.**  Solve all the questions.

a)  What are characteristics of Good Programming Language? **4**

b)  Explain Pseudo Code in brief. **4**

c)  What are datatypes? Explain. **4**

d)  Write an algorithm to add two matrices or array. **4**

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