

B.Sc. - I (Information Technology) (CBCS Pattern) Semester-I
UBITT104 - Paper-IV - Developing Programming Logic and Techniques

P. Pages : 2

Time : Three Hours



GUG/S/25/10913

Max. Marks : 80

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

Either :

1. a) What do you mean by generation of languages? Explain. 8
- i) Machine language
- ii) Assembly language.
- b) Explain the process of compilation in detail. 8

OR

- c) Write a note on: 8
- i) Linkers
- ii) Loaders
- d) Explain any types of programming languages in detail. 8

Either :

2. a) Define algorithm. Explain any two types of algorithm. 8
- b) Write an algorithm and draw a flowchart to swap 2 numbers without using 3rd variable. 8

OR

- c) Explain different stages of Program Development Life Cycle (PDLC). 8
- d) What is flowchart? Explain different symbols used in flowchart? 8

Either :

3. a) What is an operator? Explain any two types of operators with example? 8
- b) Write an algorithm and draw a flowchart to check whether number is Palindrome or not. 8

OR

- c) Define loop. Write the difference between while and do-while loop. 8
- d) What is control statement? List various control statements supported by a high-level language? 8

Either :

4. a) Define Array. Explain one – dimensional array with example. 8
- b) What do you mean by sorting? Explain sequential sort with example? 8

OR

- c) Write a procedure to delete an element from one dimensional array with example. 8
- d) Explain the storage representation of a two dimensional array. How are the elements of a two dimensional matrix accessed. 8
5. Solve all the questions.
- a) Write the characteristics of a good programming language. 4
- b) Explain Time complexity. 4
- c) Write a note on pseudocodes. 4
- d) Explain searching in one-dimensional array. 4
