1BCA4 - Paper-IV : Programming Tools and Techniques

P. Pages : 2

GUG/S/18/3269

Time : Three Hours

0454

Max. Marks : 80

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Notes : 1. All the questions are compulsory and carry equal marks.
2. Draw neat and labeled diagrams wherever necessary.
3. Avoid vague answers and write answers relevant and specific to questions only.

1. Either

a) What are translators? Explain the need for translators. **8**

b) Explain the various types of programming languages. **8**

OR

c) "An object program is created by computer from a source program at run time" comment. **8**

d) Write a short note on. **8**

  i) Function oriented language.

  iii) Event based language.

2. Either

a) List the important phases to be considered by a programmer while solving a problem using digital computer. **8**

b) Define a Pseudocode? Explain its characteristics? **8**

OR

c) Explain a big- O notation? Explain its importance? **8**

d) What is flowchart? Explain the different symbol of flowchart? Explain with suitable example. **8**

3. Either

a) Explain the multi – directional conditional control structure. **8**

b) Write an algorithm & draw a flowchart to find the largest of three numbers. **8**

OR

c) What are data types? List the various types supported by a High- level language. **8**

d) Explain the control statement? List the various control statement supported by a high-level language? **8**

4. Either
  a) What is the need for an array & explain types of array with suitable examples. **8**

  b) Write an algorithm to find the smallest element and its position in a one- dimensional array. **8**

<div align="center">OR</div>

  c) Define sorting and explain with an example why sorting is considered an important operation. **8**

  d) Write a algorithm to check whether a list is in sorted order or not. **8**

5. Attempt all the questions.

  a) Discuss the features of 3rd generation computer language. **4**

  b) Explain the advantages & disadvantages of algorithm. **4**

  c) Explain the type casting? Explain it with suitable example. **4**

  d) Explain the searching with its types in detail? **4**

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