ED-475

M.Sc. 2nd Semester
Examination, May-June 2021

COMPUTER SCIENCE

Paper - IV

Principles of Compiler Design

Time : Three Hours] [*Maximum Marks* : 100

Note : Answer any **two** parts from each question. All questions carry equal marks.

Unit-I

1. (*a*) Describe structure of compiler in detail.

(*b*) Explain regular grammar and expression with example.

(*c*) Describe implementation of compiler in detail. Explain what do you mean by ambiguity with example.

Unit-II

2. (*a*) Describe scanner in detail.

(*b*) Explain bottom up parsing with example.

(*c*) What do you mean by elementary symbol table organization ?

Unit-III

3. (*a*) Explain array allocation and accessing an array element.

(*b*) What do you mean by common and equivalence allocation ? Explain.

(*c*) Explain with example algorithm of converting an infix expression into equivalent postfix form.

Unit-IV

4. (*a*) Explain procedural calls in detail.

(*b*) How can errors be classified and explain run time errors ?

(*c*) Explain compilation of I/O list and IOSUB in detail.

Unit-V

5. (*a*) Explain program flow analysis.

(*b*) Explain language processor development tools.

(*c*) Explain optimizing transformations in detail.

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