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B022313(022)

B.Tech. (Third Semester) Examination
Nov.-Dec. 2021

(AICTE Scheme)

(Computer Science & Engg. Branch)

PRINCIPLES of PROGRAMMING LANGUAGES

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : *Attempt all questions. Part (a) of each question is compulsory. Attempt any* ***two*** *parts from (b), (c) and (d). Part (a) carry 4 marks, part (b), (c) and (d) carry 8 marks.*

1. (a) What are the modules and modularization criteria for programming language? 4

(b) Explain stepwise refinement design technique. 8

(c) Explain Pseudo code and flow chart with example. 8

(d) Define different levels of abstraction of programming language. 8

2. (a) Write down the important characteristics of programming language. 4

(b) Explain structure and operations of translators in programming language. 8

(c) Write down the factors influencing the evolution of programming lanugage. 8

(d) Explain Early binding and late binding in language. 8

3. (a) What is meant by symbolic expression in LISP? 4

(b) Explain the programming structure for LISP. 8

(c) Explain following : 8

(i) Imperative Programming

(ii) Functional Programming

(d) Explain different datatypes available in PROLOG programming language. 8

4. (a) Explain following : 4

(i) Abstraction

(ii) Polymorphism

(b) What is static member? Explain with example. 8

(c) Explain this pointer with the help of example. 8

(d) Write the differences between new and delete operators. 8

5. (a) Explain constructor and destructor in C++. 4

(b) Explain following : 8

(i) Friend function

(ii) Abstract class

(c) Explain virtual function with example. 8

(d) Explain Exception Handling for a class with an example. 8