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T.Y.B. Tech. (Computer Science and Engineering) (CBCS) (Part-III)
(Semester - V) Examination, January - 2023
SYSTEM PROGRAMMING
Sub. Code : 80795

Day and Date : Tuesday, 17 - 01- 2023 **Total Marks : 70**

Time : 10.30 a.m. to 01.00 p.m.

Instructions : **1)** **All questions are compulsory.**
2) **Assume suitable data wherever necessary.**

Q1) Solve MCQs. (2 Marks Each)

a) Which of the following grammar is not an operator grammar
   i) A → AcDe ii) A → CaDcf
   iii) A → CAcfED iv) All the above

b) MOVEM moves the values from ____ to ____
   i) Memory to Register ii) Register to Memory
   iii) Register to Register iv) Memory to Memory

c) In Variant-II of the intermediate code _____ are not processed
   i) Register ii) Mnemonics
   iii) Symbols iv) Literals

d) In Syntax of Assembly Language statement, <Operand Specification > can be written as
   i) <Symbolic Name>
   ii) <Operand Name>
   iii) <Symbolic Name> [+<Displacement>]
   iv. <Symbolic Name> [+<Displacement>] [Index Register]

e) Display is used to
   i) De-allocate activation record
   ii) Access local variables
   iii) To improve the efficiency of local access
   iv) To improve the efficiency of non-local access

f) _____ is used to optimize the compiler

i) Triple ii) Postfix Notation

iii) Indirect Triples iv) Quadruples

g) _____ Parameter Passing Mechanism do not experience side effect

i) Call by value ii) Call by value-Result

iii) Call by Reference iv) Call by Name

Q2) Solve any 2 of the following. (7 Marks Each)

a) Explain Fundamentals of Language Specification

b) Explain pass structure of assembler

c) Explain Advanced Macro Facilities with example

Q3) Solve any 2 of the following. (7 Marks Each)

a) Explain phases of language processor

b) Compare Variant-I and Variant-II of intermediate code form

c) Explain data structures of macro pre-processor.

Q4) Solve any 2 of the following. (7 Marks Each)

a) Explain static and dynamic pointer with example

b) Write an Algorithm of Program Relocation.

c) Explain Software Tools for Program Development

Q5) Solve any 2 of the following. (7 Marks Each)

a) What are Operand descriptors and Register descriptors explain with an example

b) What is linking for overlays? Explain with an example

c) Explain structure of user interface