Total No. of Question : [4]

Registration No. : ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Programme Name : Computer Science & Engineering(AI ML)
Regular T.Y.B.Tech. ESE (A.Y. 2023-24) Sem.V Nov.2023
V SEMESTER (2021 BATCH)
201AIMLL301-System Programing and Compilers(TH)

Duration : [11:00 AM - 01:00 PM]
Date : 20 Nov, 2023
Day : Monday

Marks : 50

Instructions :

(Q1) **All Questions are compulsory** [20.0]

(1.1) Define System programming, Difference between Application program and System Program. [6.0]

CO :- C301.1
Blooms Taxonomy :- Understand

(1.2) Write a short note on Advanced Assembler Directives. I)ORIGIN, II) EQU, III)LTORG [7.0]

CO :- C301.1
Blooms Taxonomy :- Understand

(1.3) Construct the FA accepting the set of all strings ending with 101 where $\sum=\{1,0\}$ [7.0]

CO :- C301.2
Blooms Taxonomy :- Remember

(Q2) **All Questions are compulsory** [10.0]

(2.1) Distinguish between LL parser and LR parser. [6.0]

CO :- C301.3
Blooms Taxonomy :- Understand, Apply

OR [2.1 / 2.2]

(2.2) Explain Top down parsing (Recursive Decent parsing) with example. [6.0]

CO :- C301.3
Blooms Taxonomy :- Understand, Apply

(2.3) Find FIRST and FOLLOW sets for the following grammar. [4.0]

$S \rightarrow iEtSS'|a$
$S' \rightarrow eS|^\wedge$
$E \rightarrow b$

CO :- C301.3
Blooms Taxonomy :- Understand, Apply

(Q3) **All Questions are compulsory** [10.0]

    (3.1) What is syntax directed translation explain with advantages and disadvantages. [5.0]

    CO :- C301.4
    Blooms Taxonomy :- Understand

OR [3.1 / 3.2]

    (3.2) Explain back patching in detail. [5.0]

    CO :- C301.4
    Blooms Taxonomy :- Understand

    (3.3) Explain L-attributed definition with example [5.0]

    CO :- C301.4
    Blooms Taxonomy :- Understand

(Q4) **All Questions are compulsory** [10.0]

    (4.1) Explain optimization of basic blocks [5.0]

    CO :- C301.5
    Blooms Taxonomy :- Understand

OR [4.1 / 4.2]

    (4.2) Distinguish between PRAM and MESH. [5.0]

    CO :- C301.5
    Blooms Taxonomy :- Understand

    (4.3) Explain peephole Optimization in brief. [5.0]

    CO :- C301.5
    Blooms Taxonomy :- Understand

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