AA-152

April-2019

3rd Year Integrated, M.Sc. (C.A. & I.T.), Sem.-VI

System Software

Time : 2:30 Hours]   **[Max. Marks : 70**

1. (A) Answer any **two** :   **10**

    (1) Explain with figure fundamentals of language processing.

    (2) Write short note on Debug Monitors.

    (3) Explain concept of problem oriented and procedure oriented language processing with figure.

  (B) Define following :   **4**

    (1) Preprocessor

    (2) Language migrator

    (3) Language detranslator

    (4) Semantic gap

2. (A) Answer any **two** :   **10**

    (1) Explain with example advance assembler directives.

    (2) Explain with example intermediate code variant – I and variant – II, comparison of variants.

    (3) Explain with example data structures of assembler pass 1.

  (B) Answer any **one** :   **4**

    (1) Explain init( ) , poll( ), halt( ) and ioctl( ) entry point.

    (2) Explain read entry point of character device driver. Why routine copyout is required in it ?

3. (A) Answer any **two** :   **10**

       (1) Explain advanced macro facilities with example.

       (2) Explain data structure used in macro definition processing.

       (3) Explain with example "Positional Parameter", "Keyword Parameter", and "Mixed Parameter".

    (B) Answer any **one** :   **4**

       (1) Explain Pure and Impure Interpreter.

       (2) Explain overview of interpretation and benefits of interpretation.

4. (A) Answer any **two** :   **10**

       (1) Explain with example LL(1) parsing and grammar use for it.

       (2) Explain with example Operator Precedence parsing algorithm.

       (3) Explain code optimization.

    (B) Answer any **one** :   **4**

       (1) 'f + $(x + y)$ * $((a + b)/(c - d))$' determine evaluation order for operators of an expression using RR labelling algorithm.

       (2) Generate quadruples and triples for 'a+b*c+c*d^f'.

5   Answer any **two** :   **14**

   (1) Write a short note on Loader.

   (2) Explain with example program relocation algorithm.

   (3) Write and explain program linking algorithm.

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