15622

Reg. No.

VI Semester B.C.A. Degree Examination, September - 2021
COMPUTER SCIENCE
System Programming
(CBCS Scheme)

Time : 3 Hours

Maximum Marks : 100

Instructions to Candidates:

Answer **ALL** sections.

SECTION - A

I. Answer any **TEN** questions. Each question carries **Two** marks. (10×2=20)

1. Define system software.

2. Explain program status word.

3. Explain Using Pseudo - Op.

4. Give the Format of MOT.

5. Explain the syntax to define a Macro.

6. Define Positional Argument.

7. Give the disadvantages of incorporating the macro processor into pass 1 of assembler.

8. Define Loader.

9. Explain EXTRN pseudo - Ops.

10. Define Syntax Analysis.

11. What is Token? Give an example.

12. What is universal symbol table?

SECTION - B

II. Answer any **FIVE** questions. Each question carries **Five** marks. (5×5=25)

13. Explain Long - way - No - Looping with example.

14. Explain the Pass 1 overview of Assembler.

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15. Describe shell sort with example.

16. Explain Macro instruction arguments.

17. Explain compile and Go Loader.

18. Explain absolute loader with a neat diagram.

19. Explain Databases used in Lexical analysis phase of a compiler.

20. Explain intermediate phase with an example.

SECTION - C

III. Answer any **THREE** questions. Each question carries **Fifteen** marks. (3×15=45)

21. a. Explain various types of Instruction formats used in IBM 360. (7)
    b. Explain General Machine structure of IBM 360. (8)

22. a. Mention the databases of Pass 1 and Pass 2 of an assembler. (8)
    b. Perform Radix sort for the following numbers : - (7)
       19,13,5,27,1,26,31,16,2,9,11,21

23. a. Draw the Pass 1 flow chart of processing macro - definitions of macro processor.(8)
    b. Explain Macro instructions defining macros with an example. (7)

24. a. Explain the four types of cards used in Direct linking loader. (8)
    b. Explain general loader scheme. (7)

25. a. Explain the passes of a compiler. (8)
    b. Explain Machine - Dependent optimization. (7)

SECTION - D

IV. Answer any **ONE** question. Each question carries **Ten** marks. (1×10=10)

26. a. Draw the micro flow chart for ADD instruction. (5)
    b. Write a note on major components of System Programming. (5)

27. Draw neatly the structure of a Compiler. (10)