SM – 634

VI Semester B.C.A. Examination, May/June 2018
(Y2K8 Scheme)
COMPUTER SCIENCE
BCA – 602 : System Programming

Time : 3 Hours
Max. Marks : 90/100

*Instructions : 100 marks 2013-14 onwards. 90 marks prior to 2013-14.
Section 'D' is applicable for students 2013-14 onwards.*

SECTION – A

Answer **any ten** questions. **Each** question carries **2** marks :
(10×2=20)

1. What are the components of system software ?

2. What is PSW ?

3. Expand MDT, MNTC.

4. What is macro ?

5. Mention any two functions of Lexical phase of a compiler.

6. What are the basic units of memory ?

7. Differentiate compiler and interpreter.

8. What is sorting ?

9. Mention the format of MOT.

10. What is matrix ?

11. Define Assembler.

12. What is formal system ?

P.T.O.

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SECTION – B

Answer **any five** questions. **Each** question carries **five** marks :   (5×5=25)

13. Discuss the functions of a loader.

14. Explain data formats of IBM 360/370.

15. Explain interchange sort with example.

16. Write short note on 'compile-go-loader'.

17. Mention the steps to design assembler.

18. Explain linear search with example.

19. Discuss the functions of macro-processor.

20. Differentiate system software and application software.

SECTION – C

Answer **any three** questions. **Each** question carries **fifteen** marks :   (15×3=45)

21. a) Explain general machine structure of IBM 360/370 with a neat diagram.   8

    b) Explain various instruction formats of IBM 360/370.   7

22. a) Explain various databases used in Pass I and Pass II macro processing.   7

    b) Explain Pass-I of two-pass macro with flowchart.   8

23. a) Explain intermediate forms of compiler.   7

    b) Discuss various machine-independent optimization techniques with example.   8

24. a) Explain Bucket sort with example.   7

    b) Explain Pass-I of assembler with a flowchart.   8

25. a) Explain long-way no looping approach.   7

    b) Design and explain micro flowchart for ADD instruction.   8

SECTION – D

Answer **any one** question. **Each** question carries **10** marks.   (10×1=10)

26. Explain phases of a compiler.

27. Explain various features of macro with example.

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