VI Semester B.C.A. Examination, May/June 2018
(CBCS) (F+R) (2016-17 and Onwards)
COMPUTER SCIENCE
BCA 602 : System Programming

Time : 3 Hours

Max. Marks : 100

Instruction : *Answer **all** Sections.*

SECTION – A

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

1) What is system software ?

2) What is location counter ? What is its purpose ?

3) List any two advantages of assembly language.

4) What is Declaration Statement ? Give example.

5) Mention any two disadvantages of Radix Sort.

6) What is Macro call ?

7) Define Macro definition table.

8) Write the four basic task that can be performed by macro-instruction processor.

9) What are the functions of loader ?

10) Define Relocation factor.

11) What is intermediate form ?

12) What is a token ? Give example.

SECTION – B

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

13) Explain the general machine structures with neat diagram.

14) What is sorting ? Explain briefly about Bubble sort.

15) Explain databases used in Pass 1 and Pass 2 assemblers.

16) Explain the features of Macro facility in detail.

17) Explain macro instructions defining macros.

18) Explain compile-and-go loader with a neat diagram.

19) Define binder. What are the classes of binders ? Explain.

20) What are the functions of analysis and synthesis phases of compiler ?

P.T.O.

SECTION – C

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

21) a) Explain various instruction formats used in IBM 360.   8

    b) Explain the use of literals in assembly language programs using example.   7

22) a) Draw the detailed pass 2 flowchart of an assembler.   8

    b) What is an assembler directive ? Explain any five assembler directives with an example.   7

23) a) Give the database specifications for pass 1 and pass 2 of macro processor.   8

    b) Explain the four basic tasks of macroprocessor.   7

24) a) Explain design of absolute loader with a neat diagram.   8

    b) Explain the overlay structures for linking.   7

25) a) Explain structure of compiler with a diagram.   8

    b) Explain identifier table for the phases of compiler.   7

SECTION – D

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

26) a) Differentiate between Pseudo-op and machine-op with example.   5

    b) Draw the micro-flow chart for ADD instruction.   5

27) a) Explain Relocatable, non-relocatable and self relocatable programs.   5

    b) Explain the use of EXTERN and ENTRY statements.