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. 

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.

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?
SECTION – C

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

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. \((1 \times 10 = 10)\)

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. \(5\)