



SE – 345

VI Semester B.C.A. Examination, September 2020  
(CBCS) (F + R) (2016 – 17 & 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) Define : (a) System Software (b) Application Software.
  - 2) Mention any two differences between compiler and interpreter.
  - 3) Define : (a) Register operand (b) Storage operand.
  - 4) Explain : (a) USING (b) DROP.
  - 5) Write the format of MOT.
  - 6) Differentiate DC and DS.
  - 7) Differentiate AIF and AGO.
  - 8) Define macro.
  - 9) What is binder ?
  - 10) What is loader ? Mention its functions.
  - 11) What is token ? Give an example.
  - 12) Explain identifier table.

SECTION – B

- II. Answer **any five** questions, **each** question carries **five** marks. (5×5=25)
- 13) Explain micro flow chart for ADD instruction.
  - 14) Explain interchange sort with an example.
  - 15) What are the functions of a macroprocessor ?
  - 16) Explain “Compile and go” loader.

P.T.O.



- 17) Explain machine dependent optimization.
- 18) Explain address modification using instruction as data.
- 19) Explain conditional macro with an example.
- 20) Explain pseudo-op and machine-op with an example.

## SECTION – C

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

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|--------------------------------------------------------------------------------|---|
| 21) a) Explain data formats used in IBM 360 systems.                           | 8 |
| b) Explain General machine structure of IBM 360/370 with a neat block diagram. | 7 |
| 22) a) Explain detailed pass-1 assembler flow chart.                           | 8 |
| b) Explain binary search with an example.                                      | 7 |
| 23) a) Explain simple one pass macroprocessor with flow chart.                 | 8 |
| b) Explain ALA, MDT, MNT with an example.                                      | 7 |
| 24) a) Explain detailed pass-1 flow chart of loader.                           | 8 |
| b) Describe four types of cards used in direct linking loader.                 | 7 |
| 25) a) Explain the structure of a compiler with a block diagram.               | 8 |
| b) Explain syntax phase with an example.                                       | 7 |

## SECTION – D

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

- |                                                                      |   |
|----------------------------------------------------------------------|---|
| 26) a) Explain formal system.                                        | 5 |
| b) Explain Time sharing OS.                                          | 5 |
| 27) a) Explain data bases used in pass-1 and pass-2 of an assembler. | 5 |
| b) Explain : (a) macro language (b) macro processor.                 | 5 |