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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.



- 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)

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| 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 |
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