

# S-745

Total Pages : 3

Roll No. -----

## BCA-20

### System Programming

Bachelor of Computer Application (BCA)

6<sup>th</sup> Semester, Examination 2022(Dec.)

Time: 2 Hours

Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

### Section – A

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

[2 x 19 = 38]

P.T.O.

- Q.1. Explain the various types of Language Processors.
- Q.2. Explain all stage of intermediate code generation and code optimization technique.
- Q.3. Explain the two pass assembler in detail with block diagram.
- Q.4. Define compiler. Explain the different phases of compiler.
- Q.5. Differentiate between:
- 1) Linker and loader
  - 2) Dynamic and Static bindings
  - 3) Scanning and Parsing
  - 4) Machine Language and assembly language.

### **Section – B**

#### **(Short-answer-type questions)**

Note: Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4 x 8 = 32]

- Q.1. What do you understand by system programming, what are the basic features of system programming?
- Q.2. Explain the design of one pass and multi pass assembler.
- Q.3. Explain absolute loader scheme with its advantages and disadvantages.
- Q.4. Explain analysis and synthesis phase of a compiler.
- Q.5. What is the function of loader explain in detail?
- Q.6. What is LEX and YACC? Explain.
- Q.7. Explain the following terms:  
(i) LALR Parsing  
(ii) Static and dynamic memory allocation.
- Q.8. What are the elements of assembly language programming? Explain. What is difference between an open sub routine and close subroutine?

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