K22U 0196

Reg. No. : .....

Name : .....

VI Semester B.C.A. Degree (CBCSS-Supple./Improv.) Examination, April 2022
(2016-2018 Admissions)
Core Course
6B21 BCA : SYSTEMS SOFTWARE

Time : 3 Hours Max. Marks : 40

SECTION – A

Answer **all** questions. **Half** mark **each**.

1. a) The problems concerning statement-by-statement processing of a source program are addressed by using _____ of language processors.
   b) _____ rules govern the formation of valid statements in the source language.
   c) Object module is processed by _____ to produce machine language program.
   d) Expansion of nested macro calls are performed using _____ rule.
   e) An expression tree represents _____
   f) _____ statement lists symbols to which external references are made in the program unit.
   g) Mnemonic operation codes are found in _____
   h) Intermediate code generation phase gets input from _____

SECTION – B

Answer **any 7** questions. **2** marks **each**.

2. What are the goals of a system program ?
3. What is assembler ?
4. Distinguish between macro assembler and macro preprocessor.

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5. What are the different types of assembly language statements ?
6. How do you perform conditional expansion of statements in a macro definition ?
7. What are the different tasks in memory allocation ?
8. What are the benefits of interpreter ?
9. What is an absolute loader ?
10. List the tasks performed by the synthesis phase of an assembler.
11. What is an overlay ?

SECTION – C

Answer **any 4** questions. **3** marks **each**.

12. What are the different types of programming language grammars ?
13. Define language processor pass, forward reference and intermediate representation.
14. Write an algorithm for macro expansion.
15. Explain different parameter passing mechanisms used in programming languages.
16. What are the different object records of Intel 8088 ?
17. Explain static and dynamic memory allocation.

SECTION – D

Answer **any 2** questions. **5** marks **each**.

18. Describe the design of a two-pass assembler.
19. Discuss about different approaches to passing.
20. What is heap data structure ? Explain memory management in heap.
21. Describe the design of a linker.