



**K21U 0098**

Reg. No. : .....

Name : .....

**VI Semester B.Sc. Degree (CBCSS – Reg./Supple./Improv.)**

**Examination, April 2021**

**(2014 – 2018 Admissions)**

**CORE COURSE IN COMPUTER SCIENCE**

**6B13CSC : System Software**

Time : 3 Hours

Max. Marks : 40

**SECTION – A**

1. **One** word answer :

**(0.5×8=4)**

- a) \_\_\_\_\_ is a rule of grammar which is also known as rewriting rule.
- b) \_\_\_\_\_ eliminates the need to memorize numeric operation code.
- c) \_\_\_\_\_ is a software which bridges a specification or execution gap.
- d) Intermediate code generation phase gets input from \_\_\_\_\_
- e) \_\_\_\_\_ is a program that converts assembly language into machine code.
- f) \_\_\_\_\_ is the semantic gap between two specifications of the same task.
- g) \_\_\_\_\_ is also known as Parsing.
- h) \_\_\_\_\_ is the gap between the semantics of programs written in different programming languages.

**SECTION – B**

Write short notes on **any seven** of the following questions :

**(7×2=14)**

2. Define Language Processor.

3. What is intermediate code ? Explain its advantages.

P.T.O.



4. What is IC ?
5. Define Grammar.
6. What is the role of OPTAB in an assembler ?
7. Define load and go assembler.
8. What is meant by Code Optimization ?
9. What are live variables ?
10. What is dynamic linking ?
11. Define System Software.
12. What is an absolute loader ?
13. What is a parse tree ?
14. What is forward reference ?
15. How is macro defined ?

#### SECTION – C

Answer **any four** of the following questions :

**(4×3=12)**

16. Compare machine and assembly languages.
17. Explain compilation of an expression.
18. Differentiate between direct linking and dynamic linking.
19. What is meant by ambiguity in grammar specification ?
20. Which are the different types of Grammar ?
21. Which are the different assembly language statements ?
22. Explain Scanning and Parsing.
23. Which are the basic elements of assembly language programming ?



SECTION – D

(2×5=10)

Answer **any two** of the following questions :

- 24. What is assembler ? Explain the design specification of an assembler.
  - 25. Explain in detail about loaders and linkers.
  - 26. Define Language Processing and explain Language Processing Activities.
  - 27. What is a Compiler ? Explain in detail about compiler and its phases.
  - 28. Explain Derivation, Reduction and Parse tree in detail with example.
  - 29. Define Language Processing and explain the phases and passes of a Language Processor.
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