

Reg. No. :

VI Semester B.C.A. Degree (CBCSS – Reg./Supple./Imp.) Examination, May 2018 Core Course 6B21BCA : SYSTEM SOFTWARE (2014 Admn. Onwards)

Time : 3 Hours

SECTION - A

1. One word answer :

- a) _____ converts assembly language program to object program.
- b) Hardware device capable to execute programming instruction is
- c) _____ register holds the address of next executable instruction during program execution.
- d) Basic blocks can be analysed by
- e) Resolution of externally defined symbol is handled by
- f) Bootstrap loader resides in
- g) The method which merges the bodies of two loops is
- h) The errors pointed out by a compiler usually known as

SECTION - B

Write short notes on any seven of the following questions :

- 2. What do you mean by forward references ?
- 3. List the classifications of grammar based on nature of production.
- 4. What is DFA ?
- 5. What is operator precedence grammar ?

K18U 0190

Max. Marks: 40

 $(8 \times 0.5 = 4)$

P.T.O.

 $(7 \times 2 = 14)$

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6. Explain the role of assembler directives.

7. What is cross referencing ?

- 8. What is dead code elimination ?
- 9. Give the use of entry and extern.
- 10. Give an example for 3 address code.

11. Briefly explain the purpose of segment index field in LE data record.

SECTION - C

Answer any four of the following questions :

- 12. Discuss the problems associated with deletion in Hash Table Organisation with rehash techniques.
- 13. Briefly explain the phases in language processing.
- 14. Explain process of top deacon passing.
- 15. List and explain briefly the data structures and files used in a two pass assembler.
- 16. Explain conditional macro expansion.
- 17. Differentiate between static and dynamic memory allocation.

SECTION - D

Write an essay on any two of the following :

- 18. Write a procedure to search and locate a symbol in a binary search organisation.
- 19. Explain ambiguity in grammar with suitable example.
- 20. Explain the functions of a macro processor.
- 21. Using a diagram explain the phases of compiling.

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 $(4 \times 3 = 12)$

$(2 \times 5 = 10)$