17U671 (Pages: 2) Name: ……..…….

Reg. No……..……

SIXTH SEMESTER B.C.A. DEGREE EXAMINATION, APRIL 2020

(CUCBCSS-UG)

CC17U BCA6 B17d - SYSTEM SOFTWARE

Computer Application–Elective

(2017 Admission – Regular)

Time: Three Hours Maximum: 80 Marks

PART A

Answer ***all*** questions. Each question carries 1 mark.

1. Give any two examples of utility software.
2. What is the use of OPTAB data structure in the design of assembler?
3. How will you define a macro?
4. What are expansion time variables?
5. What is the function of binder?
6. Define program relocation.
7. Mention any two functions of lexical analysis.
8. Define CFG.
9. What is a parse tree?
10. Expand YACC.

(10 x 1 = 10 Marks)

PART B

Answer ***all*** questions. Each question carries 2 marks.

11. How System Software is different from Application Software?
12. What are assembler directives?
13. What are positional parameters in macro?
14. What do you mean by macro call?
15. Differentiate between linker and loader.
16. What are overlays?
17. Write short note on lexical errors.
18. What is the purpose of LEX?

(8 x 2 = 16 Marks)

PART C

Answer any ***six*** questions. Each question carries 4 marks.

19. Discuss any four types of Language processors.
20. Explain pre-processor and translator with example.

21. Explain briefly, the tasks involved in Macro Expansion.
22. Differentiate between AIF and AGO statements in macros.
23. Explain Dynamic loading with an example.
24. Construct a parse tree for the expression $A = B + C * 2$
25. Explain the role of symbol table in various phases of compiler design.
26. Differentiate between machine dependent and machine independent code optimization.
27. Explain LEX file specification.

(6 x 4 = 24 Marks)

PART D

Answer any ***three*** questions. Each question carries 10 marks.

28. Why Operating System is known as Resource Manager? Briefly explain various functions of Operating System.
29. Explain the design of assembler in detail with an example.
30. What are the data structures used in macro preprocessor? Explain.
31. How can we identify errors in each phase? Explain error handling in compiler design.
32. Explain the working of the parser YACC.

(3 x 10 = 30 Marks)

****