

BE CSE/IT

System programming

Semester: 4th

Sub. Code: CST-281/ITT-281

Time Allowed: 3 Hours Maximum Marks :60 Type: Reg.(May-19)

1. Attempt six questions only. All questions carry 10 marks.

2. Question no. 1 is compulsory with 5 short questions.

Answer to each part should be between 50-60 words)

3. Attempt five questions from Sections- B, C & D, but not more than

two questions from each sections.

Each Answer should be between 250-300 words)

Section – A (Compulsory) (5X2=10)

Q.1 What are the basic functions of assembler?

(a)

(b) Compare local optimization with global optimization.

(c) What are the properties of grammar?

(d) Briefly explain Subroutine Linkages.

(e) List out the steps in booting System.

Section – B (10 Marks Each)

Q.2 With the help of assembly language program generate literal table, pool-table and mnemonic table.

Q.3 Compare and contrast between

- Pseudo op and machine op
- Using and BALR
- Compiler and interpreter.

Q.4 List out important features of System programming? Compare it with application programming.

Section – C (10 Marks Each)

Q.5 State the definition of Bootstrapping, its uses and its types in detail.

Construct NFA with epsilon for $RE = (a/b)^*ab$ then

Q.6 convert it into DFA and find its minimized DFA.

Q.7 How optimization is beneficial? Discuss machine independent optimization techniques.

Section – D (10 Marks Each)

Q.8 Justify the need of data bases in loader/ with suitable example.

Q.9 Contrast the BIOS and MBR Stages in Booting with suitable example.

Q.10 How Process and Thread are important in operating system. Differentiate between Process