**QUESTION BANK**

**System Programming and Operating System**

**UNIT 1, 2 & 3**

**1)Describe the language processor in detail with various language processing activities.**

**2)Explain different phases of language processing .**

**3)Define language processor . Also explain various language processing tools.**

**6)Explain scanning and parsing.**

**7)Explain top down parsing in detail. What type of grammer is required by this parser. (brief)**

**8) Compare Compiler and Interpreter**

**10)what do you understand by grammer?Explain use of Terminal and non Terminal in representing grammer.**

**11)Define following terms and explain where it is used with examples**

**1)DFA**

**2)Regular expression**

**3) Forward Reference**

**4) back Tracking**

**12)Give the difference between literal & symbol. How these are treated by assembler?**

**13)Explain EQU and Origin statement.**

**14)Explain the different types of errors that are handled by PASS –I &PASS-II of a two pass assembler.**

**15)What is LITERAL? What is its advantage in assembly language programming?**

**16) Explain different data structures used to design passI and pass II of assembler.**

**17)Explain completely the processing of LTORG, ORIGIN statements by PASS I and PASS II of a two pass assembler.**

**18)Describe the design of Pass 1 of two pass assembler**

**19)Describe design of PassII of two pass assembler**

**20) Explain different assembly language statements with examples.**

**21) What are the differences between Macros and Functions?**

**22) Explain in detail various phases of a compiler with example.**

**23)Draw a neat flowchart for MACRO processor to handle nested macro definitions.**

**24) Explain the need for a lexical analyzer with examples. Explain how it works.**

**25) Explain the advance macro facilities**

**A)Alteration of flow of control during expansion**

**B)Expansion time variables**

**C)Attributes of parameters**

**26)Explain parameter passing mechanisms:**

1. **Call by value**
2. **Call by references**
3. **Call by result**
4. **Call by name**

**27)Define macro. Explain with suitable example lexical expansion of macro.**

**28)What is static and dynamic memory allocation ?**

**29)What is the need for code optimization?Explain various code optimization techniques.**

**30)Explain the terms**

**a)Macro definition**

**b) Macro call**

**c)Macro Expansion**

**d) Nested Macro calls**

**31)List down steps in designing Macro Preprocessor**

**32)What are the data structure used for the design of macro processing**

**33)Explain pass I and Pass II of macro processor.**

**34)Explain compilation of control structure for if and while statement.**

**35)What are loaders ? List the different type of loader schemes. Explain compile**

**and Go-loader scheme.**

**36) What do you mean by program relocatability?**

**37) What do you mean by translated origin , linked origin and load origin?**

**38)W.r.t loader functions state whether following statements are TRUE or reason**

**1. In absolute loader relocation is done by assembler**

**2. In absolute loader linking is done by programmer**

**3. In compiler and loader allocation is done by assembler**

**4. In compile and go loader loading is done by loader.**

**39) Describe process of linking a program and various tasks of linker.**

**40)Write short note on MS DOS linker.**

**41)Draw and explain editor structure.**

**42)What is linker?**

**43)Explain subroutine linker and Direct linking loader.**

**44)Explain editor structure with different text editors.**

**45)List down components of programming environments .Explain any two components indetail.**

**46) Explain software tools for program development.**