PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
DEPARTMENT OF INFORMATION TECHNOLOGY
SEMESTER: III
CAT-II (2023-24) ODD SEMESTER

Subject : System Programming
Subject Code : BEIT305T

Section : A
Max. Marks : 35   Time : 1.30 Hrs.

Note :
1) All Question are compulsory.
2) All questions carry marks as indicated.

Q. No.	Questions	Marks	CO	BL
1. a. 1	A _____ statement declare the name of macro. a) macro prototype b) macro definition c) macro identification d) None of the above	1	3	1
a. 2	The end of a macro can be represented by the directive a) END b) ENDS c) ENDM d) ENDD	1	3	1
1. b	Explain Conditional Macro expansion with example.	5	3	2

OR

Q. No.	Questions	Marks	CO	BL
2. a. 1	If a number of instructions are repeating through the main program, then to reduce the length of the program, ... is used. a) procedure b) subroutine c) macro d) none of the mentioned	1	3	2
a. 2	A macro can be used_____ a) in data segment b) to represent directives c) to represent statements d) all of the mentioned	1	3	1
2. b	GET MDT, MNT and ALA for the following code fragment.	5	3	2

```
            MACRO
    XYZ         &A
            MACRO
    & A         &B
            MACRO
    & B         &C
    ST          15, A(& C)
    BALR        14, 15
    L           1, = F' 3'
    A           1, & C
    ST          1, & C
            MEND
            MEND
            MEND
PROG        START
            BALR
            :
    XYZ         MIT
    MIT         HELLO
    HELLO       DI
DI  DC          F 10'
    END
```

Q. No.	Questions	Marks	CO	BL
3. a. 1	Load address for the first word of the program is called a) Linker address origin b) Load address origin c) Phase library d) Absolute library	1	4	1

a. 2	A linker program a) places the program in the memory for the purpose of execution. b) relocates the program to execute from the specific memory area allocated to it. c) links the program with other programs needed for its execution. d) interfaces the program with the entities generating its input data.	1	4	1
3.	**b**	Explain Binders and Module Loader in detail.	5	4	2
	c	Explain direct Linking loader scheme in detail.also discuss about all the cards in detail	7	4	2

OR

4.	a. 1	Static memory allocation is typically performed during _____. a) compilation b) execution c) loading d) linking	1	4	1
	a. 2	Relocatable programs a) cannot be used with fixed partitions b) can be loaded almost anywhere in memory c) do not need a linker d) can be loaded only at one specific location	1	4	1
4.	b	Define Loader? Explain task of Loader.	5	4	2
	c	Explain Absolute Loader Scheme with advantages and Disadvantages.	7	4	2
5.	a. 1	An optimizer compiler a) is optimized to occupy less space b) Is optimized to take less time for execution c) Optimizes the code d) None of these	1	5	1
	a. 2	A compiler is a program that a) places programs into memory and prepares then for execution b) automates the translation of assemble language into machine language c) accepts a program written in a high level language and produces an object program d) appears to execute a resource as if it were machine language	1	5	1
5.	b	What is debugger & explain debugging procedure in detail.	5	5	2
	c	Differentiate between compiler & interpreter? Explain various data structures used in compiler design.	7	5	3

OR

6.	a. 1	Which of the following is not a feature of compiler ? a) Scans the entire program first and then translate it into machine code b) When all the syntax errors are removed execution takes place c) slow for debugging d) Execution time is more	1	5	2
	a. 2	A compiler that runs on one machine and produces code for a different machine is called a) cross compilation b) one pass compilation c) two pass compilation d) none of these	1	5	1
6.	b	Explain code optimization procedure in detail.	5	5	2
	c	What are Different phases of Compiler design.	7	5	1

***** All The Best *****