B.E. Information Technology Fourth Semester IT405 - System Programming

	Pages : ne : Th	2 fine Hours $finite Hours$ fin	
	Not	 es: 1. Same answer book must be used for all questions. 2. All questions carry marks as indicated. 3. Due credit will be given to neatness and adequate dimensions. 4. Assume suitable data wherever necessary. 	
1.	a)	Explain general machine structure of YBM 360.	8
	b)	Difference between :	8
		i) Multiprocessing and multiprogramming.	
		ii) Open and closed subroutine.	
		OR	
2.	a)	What is an operating System? Explain the different user viewpoints of an operting system.	8
	b)	Explain : i) USING iii) BALR iv) END.	8
3.	a)	Discuss the general design procedure of an assembler : with the help of suitable diagram.	8
	b)	For the following program JOHN START 0 USING *, 15 L 1, FIVE A 1, FOUR ST 1, TEMP FOUR DC F'4' FIVE DC F'5' TEMP DS 1F END END	8
		OR	
4.	a)	Sort the following numbers using the following sorting techniques:-	8
		i) Interchange Sort	
		ii) Bucket Sort 23, 29, 44, 47, 49, 73, 36, 38 101, 12	

- b) Differentiate between :
 - i) Linear and Binary search.
 - ii) Radix and Radix Exchange Sort.

5.	a)	Enlist and explain various features of a macro facility.	8
	b)	Describe the specification of databases used by the two passes of the macro processor.	8
		OR	
6.	a)	Define Macro state four basic tasks that any macro processor must perform.	8
	b)	Draw and explain pass-2 processing macro calls and expansion flowchart in detail.	8
7.	a)	Define Loaders Discuss "Compile and Go" loaders.	8
	b)	Explain the concept of subroutine linkages.	8
		OR	
8.	a)	Explain with suitable diagram, working of BSS loader in detail.	8

- b) Describe the function of each of the RLD, ESD, TXT and END cards.
- **9.** a) Enlist and explain various features of high level language.
 - b) What is the use of formal systems in programming language.

OR

10. Explain different phases of a compiler in detail.

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