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Code: D-14 Subject: COMPUTER SOFTWARE FUNDAMENTALS
Time: 3 Hours Max. Marks: 100

NOTE: There are 11 Questions in all.

- Question 1 is compulsory and carries 16 marks. Answer to Q. 1. must be written in the space provided for it in the answer book supplied and nowhere else.
- Answer any THREE Questions each from Part I and Part II. Each of these questions carries 14 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or best alternative in the follow	wing:	follo	the	in	ative	altern	best	or	correct	the	Choose).1	(
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(2x8)

- a. The first component of a line in a machine language program is called
 - (A) Lines of code.

(B) Opcode.

(C) Psuedocode.

- **(D)** Operators and operand.
- b. A translator that reads an entire program written in high level language and converts it into machine language code is
- (A) Assembler.

(B) Translator.

(C) Compiler.

(D) Interpreter.

- c. A decision table
 - (A) Represents the information flow.
 - **(B)** Shows the decision paths.
 - (C) Gets an accurate picture of the system.
 - **(D)** Documents rules that select one or more actions, based on one or more conditions, from a set of possible conditions.
- d. The technique that stores a program on a disk and then transfers the program into main storage as and when needed is
 - (A) Spooling.

(B) Swapping.

(C) Thrashing.

- (D) Scheduling.
- e. In flowcharting a computer program, the diamond shaped symbol is used for
 - (A) Decision making.

(B) Action flow.

(C) Processing.

- (D) Input / Output.
- f. Which of the following is a graphical package?

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- (A) Corel Draw. **(B)** Wordstar. (C) Lotus 1-2-3. (D) Dbase III. A word processor is (A) A computer program that handles text. **(B)** An output device. **(C)** An input device. **(D)** A device that tells us the meaning of words. The part of the operating system, which permanently resides in the main memory, is (A) Job Scheduling model. (B) Kernel. **(C)** Translator. (**D**) Compiler. PART I Answer any THREE Questions. Each question carries 14 marks. a. Draw a flowchart to find the sum of the series up to N terms. $S = 2 + 5 + 10 + 17 + 26 + 37 + \dots$ **(7)** b. What is a decision table? Give the steps to construct a decision table. (3 + 4)a. Write an algorithm to find the largest of the given three numbers X1, X2, X3. **(7)** b. What is a pseudocode? Give two advantages and disadvantages of pseudocode. (3 +4) a. Write a BASIC program to generate fibonacci series up to 10000. 1, 1, 2, 3, 5, 8, 13, 21 **(7)** b. What are the two types of errors that commonly occur in any computer program? Explain about the errors that can be detected by the computer. (7) Write a FORTAN program to compute the area and perimeter of a triangle, given the sides of a triangle. s = (a + b + c) / 2.
- Q.5

- Define the terms source program and object program with respect to assembly language is the object programming. How source program converted to an (4 + 3)program?
- Differentiate between modular and structured programming techniques. **(6)** Q.6 a.

Q.2

Q.3

Q.4

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b. Illustrate the working of an interpreter. Give the advantages of an interpreter over the compiler. (8)

		Ans	swer anv THI	REE Quest	PART II ions. Each	question ca	arries 14 m	arks.	
Q.7	Answer any THREE Questions. Each question carries 14 marks. a. The number of directories used and the way these directories are organized varies from system to another. Explain the three types of directory organizations that are commonly used.								
			e time-sharing th the help of a		How is it	achieved? F	Explain the v	working of a	time-sharing
Q.8	a.]	Mention th	ne main function	ns of a CPU	I in the comp	outer system		(3)	
	b. :	Explain ho	w the CPU ex	ecutes an in	struction in a	computer s	system.	(7)	
	c	. Name registers h	the registers the	hat are used	by the AL	U to perform (4)	n various ta	asks. Explai	n how these
Q.9	a.]	By default	how are nume	eric data and	text data al	gned in a sp	readsheet?	(2)	
	b	. How is heading?	s the column l	neading align	ned to the c	enter when (2)	two colum	ns have the s	ame column
	 c. Explain how the functions work in a spreadsheet with an example. (i) SUM. (ii) MAX (iii) AVG. 								
			eet contains that in all months	_	details. Giv	e the sequent (4)	ce of steps	to draw the	bar graph of
			A	В	C	D	Е	F	G
		1 2	Expenses	Jan	Feb	Mar	Apr	May	Jun
		3	Material	30.0	26.0	21.0	28.0	32.0	29.0
Q.10	;	a. Explaii	n the word wra	ap feature in	a word pro	cessor pack	age.	(4)	

b. Explain briefly, the procedure to

(i) Change the line spacing between the lines of a paragraph.

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		(ii) To insert a picture into a document(iii) To change the font size of the para	
	c.	It is required to print the page number at the bottom. Give the steps to achieve this. (4)	
Q.11		a. Programs. (4)	Mention the tasks performed by the Utility
	b.	Define the System software.	(2)
	c.	Write a short note on personal assistance package.	(8)