

Total number of printed pages: 2 Programme(D)/II/DCSE202

2023

Computer Fundamentals and Programming

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.	a)	Define the following terms in brief: (any three) i) Software ii) Memory iii) Algorithm iv) Flowchart	3*5=15
	b)	Pointwise differentiate between the followings: (any two) i) ROM and RAM ii) Data and Information iii) Input and Output iv) printf() and scanf()	2*2.5 = 5
2.	a)	What is the basic need of an operating system? Briefly describe about five functions performed by an operating system. OR What is an operator? Discuss various operators available in C language with examples.	2+10=12 2+10=12
	b)	Write the structure of a C program with an example.	5
	c)	What are the primary data types in C programming language?	3
3.	a)	Mention the characteristics of good quality data. Briefly explain each of them.	5+10=15
	b)	Discuss about three input and two output devices of a computer system.	5
4.	a)	What is a loop? Draw the flow chart of <i>for</i> loop or write the syntax of <i>for</i> loop. Write a C program to print the integers between 1 and 10 using a loop.	3+5+7=15
	b)	Discuss about the functions of primary and secondary memory in a computer system	5

5.	a)	Briefly discuss about if –else-if statement. Write a C program to find the largest of three integers using if-else-if statement.	3+7=10
	b)	Name atleast five characteristics of an algorithm and briefly discuss about each of them.	10
6.	a)	i) Convert $(786)_{10}$ into its octal equivalent. ii) Convert 110110100_2 into its octal equivalent. OR Draw the block diagram of a computer system and briefly explain the function of each component of the system.	4+4 =8 8
	b)	Draw a flow-chart for finding the maximum of three integers.	6
	c)	Write a C program to check whether a given integer is odd or even.	6
	7.	Write short notes on any four of the followings:	5*4=20
	a)	Operating system	
	b)	Binary to Decimal conversion	
	c)	Cache memory	
	d)	Fifth generation of computers	
	e)	Data and information	
	f)	Shared memory and separate memory	
	h)	Distributed operating system	
	i)	gets() and puts() functions	
	j)	High level and machine level language	