Total No. of Questions : 8]	2-90	SEAT No. :
P1527	[6002]-156	[Total No. of Pages : 2

	S.E. (Computer/Al & DS)	
	FUNDAMENTALS OF DATA STRUCTU	RE
	(2019 Pattern) (Semester - III) (210242	
	?	
	½ Hours]	[Max. Marks : 70
	ions to the candidates:	
1)	Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.	
2)	Figures to the right indicate full marks.	
3) 4)	Neat diagrams must be drawn whenever necessary. Make squable assumption whenever necessary.	
4)	Make statuble assumption whenever necessary.	9
Q1) a)	Write a pseudo code for binary search apply you	algorithm on the
, ,	following no.s stored in an array to search no:23 & 10	V
	9,17,23,40,45,52,58,80,85,95,100	
	3,17,20,10,10,10,02,00,00,00,00	
b)	Explain the selection sort with algorithm sort the following	lowing no e using
U)	selection sort & show the content of array after every	•
	27, 76, 17, 9, 45, 58, 90, 79, 100.	pass. [7]
	27, 70, 17, 9, 43, 38, 90, 79, 100	
	OR 6	
Q2) a)	Explain quick sort algorithm with suitable examp	
	complexity of quick sort algorithm.	[9]
		Ċ
b)	Write a short note on sentinel search & Index seque	ential search with
	suitable example.	[9]
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	03
Q3) a)	Write a pseudo code to insert new node in to singly to	k list. [9]
		, 0.
b)	Explain the representation of polynomial using GLL.	(9)
	OR OR	V
94) a)	What is doubly linkedlist. Explain the process of de	letion of element
27) a)	from doubly linked list with example.	[9]
	from doubly mixed list with example.	[2]
h)	What is dynamic data atmostrate Evaluin with lines land	introduiat with it?
b)	What is dynamic data structure. Explain with circular l	
	basic operation.	[9]
0 = \ \ \ \		
Q5) a)	Write a pseudo code for basic operation of stack.	[8]

P.T.O.

	b)	What are the variants of recursion. Explain with example.	[9]
		OR	
Q6)	a)	Write algorithm for posfix expression evalution. Explain with suita example.	ble [8]
	b)	Explain the linked implementation of stack with suitable example.	[9]
Q 7)	a)	Write pseudo code to implement circular queue using array. Explain	*
	b)	Explain array implementation of priority queue with all basic operation	[9]
	0)	OR	[8]
Q 8)	a)	Explain linked implementation of queue with suitable example.	[9]
	b) 5	Write pseudo code for insertion operation of input restricted & out restricted double ended queue.	put [8]

		716.38°	
		Solven So	
C	>	PIONE PROPERTY OF THE PROPERTY	

[6002]-156