

2022

DATA STRUCTURE USING PYTHON

B.Sc. Fourth Semester End Examination - 2022

PAPER - GE4T

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

1. Answer any five questions : 5×2=10
- a) What is data structure? Give an example. 2
 - b) What is Exception handling. 2
 - c) What do you mean by global variable? 2
 - d) What are the operations performed on the queue? 2

(Turn Over)

(2)

- e) What do you mean by negative Index? 2
- f) What is string? Give an example. 2
- g) What do you mean by overflow and underflow in stack? 2
- h) How to create an array in python? Give an example. 2

2. Answer any four questions. 4×5=20

- a) What is row-major and column major form of 2-dimensional matrix? Give example of each.
- b) Write a short note on priority queue. 5
- c) What is dynamic array? Write a python code to create a dynamic array.
- d) Write down the procedure of Binary Searching technique. 5
- e) How to sort, set of element in array using bubble sort technique? Write down the procedure of that. 5
- f) What is Linked list? What are the advantages and disadvantages of linked list. 1+4

(3)

3. Answer any one question. 1×10=10

- a) Write a python program to insert into an empty binary search tree, entries with keys 30, 40, 24, 58, 48, 26, 11, 13.
- b) What is function? How to define function in python? Give an example. 2+3
What do you mean by asymptotic notations? Explain in details. 5