



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

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ASSIGNMENT – I

COMMON TO CSE and IT

Program : B.E(CSE)/B.Tech(IT)

Max. Marks : 15

Course : Data Structures

Course Code : SCSA1203

Sem : II

Batch : 2020 - 2021

Due Date : 12.05.2021

Part-A

Answer ALL the questions

(5×1=5)

Multiple Choice Questions and Fill in the Blanks

1. Choose correct output for the following sequence of operations.

push(5)

push(8)

pop

push(2)

push(5)

pop

pop

pop

push(1)

pop

A.85251

B.85521

C.82551

D.81255

2. Which is the pointer associated with the stack?

A. FIRST

B. FRONT

C. TOP

D. REAR

3. Which of the following is an application of stack?

A. finding factorial

B. tower of Hanoi

C. infix to postfix

D. all of the above

4. What data structure is used to perform recursion?

- (a) Stack
- (b) Queue
- (c) Linked List
- (d) Arrays

5. form of access is used to add remove nodes from a stack.

Part-B

Answer ALL the questions

(5×1=5)

Short Answers

1. Define stack.
2. List the applications of stack.
3. List out the basic operations that can be performed on a stack.
4. State the different ways of representing expressions in stack.
5. What is the purpose of TOP and POP?

Part-C

Long question

(1×5=5)

1. Write the routine for push and pop operations of stack.