

ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian Minority Institution

WORKSHEET – 46

Topic: Stacks

Subject: CO	MPUTER SCIENCE Class -	12	F.M:15
Chapter: Sta	ncks and Queues		Date: 23/01/2021
<u>Cł</u>	noose the correct answer for	r each question:	[5 X 1 = 15]
1.	Process of inserting an element in a) Create b) Push c) Evaluation d) Pop	stack is called	
2.	In a stack, if a user tries to remove a) Underflow b) Empty collection c) Overflow d) Garbage Collection	an element from an empty	<pre>/ stack it is called</pre>
3.	Pushing an element into stack alre becomes a) Overflow b) Crash c) Underflow d) User flow	ady having five elements a	nd stack size of 5, then stack
4.	Entries in a stack are "ordered". W a) A collection of stacks is sortable b) Stack entries may be compared c) The entries are stored in a linker d) There is a Sequential entry that	'hat is the meaning of this s with the '<' operation d list is one by one	statement?
5.	Which of the following is not the a a) A parentheses balancing progra b) Tracking of local variables at run c) Compiler Syntax Analyzer d) Data Transfer between two asyn	pplication of stack? m n time nchronous process	

- 6. Consider the usual algorithm for determining whether a sequence of parentheses is balanced. The maximum number of parentheses that appear on the stack AT ANY ONE TIME when the algorithm analyzes: (()(())(()))?
 - a) 1
 - b) 2
 - c) 3
 - d) 4 or more
- 7. Consider the usual algorithm for determining whether a sequence of parentheses is balanced. Suppose that you run the algorithm on a sequence that contains 2 left parentheses and 3 right parentheses (in some order). The maximum number of parentheses that appear on the stack AT ANY ONE TIME during the computation?
 - a) 1
 - b) 2
 - c) 3
 - d) 4 or more
- 8. What is the value of the postfix expression 6 3 2 4 + *?
 - a) 1
 - b) 40
 - c) 74
 - d) -18
- 9. Here is an infix expression: 4 + 3*(6*3-12). Suppose that we are using the usual stack algorithm to convert the expression from infix to postfix notation. The maximum number of symbols that will appear on the stack AT ONE TIME during the conversion of this expression?
 - a) 1
 - b) 2
 - c) 3
 - d) 4
- 10. The postfix form of the expression $(A+B)^*(C^*D-E)^*F / G$ is?
 - a) AB+ CD*E FG /**
 - b) AB + CD* E F **G /
 - c) AB + CD* E *F *G /
 - d) AB + CDE * * F *G /
- 11. The data structure required to check whether an expression contains a balanced parenthesis is?
 - a) Stack
 - b) Queue
 - c) Array
 - d) Tree

12. What data structure would you mostly likely see in non recursive implementation of a recursive algorithm?

a) Linked List

b) Stack

c) Queue

d) Tree

13. The postfix form of A*B+C/D is?

a) *AB/CD+

b) AB*CD/+

c) A*BC+/D

d) ABCD+/*

14. Which data structure is needed to convert infix notation to postfix notation?

a) Branch

b) Tree

c) Queue

d) Stack

15. Process of removing an element from stack is called _____

a) Create

b) Push

c) Evaluation

d) Pop

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