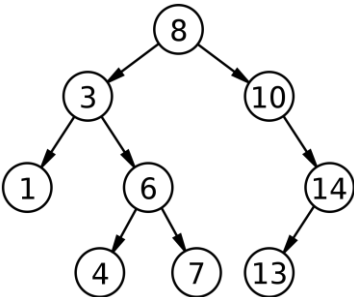


Semester: August 2022-December 2022		
Maximum Marks: 30	Examination: Re-In-Semester Examination	Duration :1hr15 mins
Programme code: 01	Class: SY	Semester: III/ (SVU 2020)
Programme: Computer Engineering		
Name of the Constituent College: K. J. Somaiya College of Engineering		Name of the department: COMP
Course Code: 116U01C302	Name of the Course: Data Structures	

Question No.		Max. Marks
Q1	A. Compare static memory allocation with dynamic memory allocation, support your answer with examples. B. Define Data structures. Explain linear and non-linear data structures with example.	05 05
Q2	Define Queue. Discuss following Simple Queue operations with algorithm/Pseudocode. Please check all the conditions during operation. <ul style="list-style-type: none"> a. Insert b. Delete <p style="text-align: center;">OR</p> Define the following concepts with respect to tree data structure. Draw diagrams wherever possible. <ul style="list-style-type: none"> a. Height of tree b. Path c. Internal node d. Level of a node e. Forest 	10
Q3	A. Consider given instance of a binary tree. Give inorder, preorder and postorder traversal for the same. <div style="text-align: center;">  <pre> graph TD 8((8)) --> 3((3)) 8 --> 10((10)) 3 --> 1((1)) 3 --> 6((6)) 6 --> 4((4)) 6 --> 7((7)) 10 --> 14((14)) 14 --> 13((13)) </pre> </div> B. Convert the given infix expression to postfix using stack data structure $A+B*C-D-E/F$	05 05