Total no. of pages: 1   Roll No.............
Fourth Semester   B. Tech. [Bio-Tech]
Mid Sem Examination   March- 2019
                    CO-252   Data Structure and Algorithms
Time: 1:30 Hours   Max. Marks : 20

Note : Assume suitable missing data, if any.

Q1. Evaluate the following postfix expression using a stack and show the

contents of the stack after execution of each operation.

$$5,11,-,6,8,+,12,*,/ \qquad (2)$$

Q2. An array T[50][20] is stored in the memory along the column with each of

the elements occupying 4 bytes. Find out the base address and address of

elements T[30][15]. If an element T[25][10] is stored at the memory location

9800.   (2)

Q3. Give the algorithm/ pseudo-code to sort a list of number using insertion

sort. Show steps for sorting the following list of numbers:

32, 14,26,64,99,56,20,3,44,and 11.   (4)

Q4. Use Stack to convert the given Infix expression to postfix expression. Show

the details of Stack at each step of conversion.   -   (4)

Expression: (a-b*c^d)*e/f^g) (Note: ^indicates exponent operator.)

Q5. Explain the difference between stack and queue and also explain PUSH and

POP operation of stack.   (4)

Q6. Write an algorithm to insert and delete an element from circular queue. (4)