

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
Department of Computer Science and Engineering (CSE)

Online Quiz 2 Alternate

WINTER SEMESTER, 2019-2020

DURATION: 1 Hour

FULL MARKS: 30

CSE 4301: Object Oriented Programming

Programmable calculators are not allowed. Do not write anything on the question paper.

Figures in the right margin indicate marks.

1. a) Write a definition of class Queue which follows the Queue data structure [FIFO first in first out]. 15
Elements of the queue hold integer data. You need to include exception class to handle two cases.
1. If pop() is called while queue is empty.
 2. If push() is called while queue is full. [Maximum of queue should be defined using #define macro]

Hint:

Important Member functions:

push() – add element at the last.

pop() – extract element from the first.

2. a) Write a template function that returns the average of given array of unknown datatype. 8
- b) Change the following code such a way that array of person can be passed as an argument in average template function mentioned in a. 7

```
class person {  
    int age_val;  
public:  
    int& age(){return age_val;}  
};
```