DOON UNIVERSITY, DEHRADUN
Mid Semester Examination, 8th Semester, 2018
Academic Year 2017-18 (Even Semester)
School of Technology
Integrated M.C.A
TMC-551 Functional Programming

Time Allowed 2.00 Hours   *Maximum Marks: 30*

SECTION : A

Attempt all the parts of given question.

Q)If you enter the following expressions into ghci,What will be the output? What are their types? (1/2X12=6Marks)

     I)3 * 5 - 8

     II)(+) 2 7

     III)succ 8

     IV)succ 5

     V)pred 9

     VI)pred 8

     VII)cos(pi / 2)

     VIII)truncate pi

     IX)round 3.9

     X)round 7.4

     XI)floor 3.6

     XII)ceiling 5.3

SECTION : B

Attempt all the questions.All questions carry equal marks.(6+6)

Q.1)Write short notes on following:

(a) Functions as first class objects (3)

(b) Laziness   (3)

Q.2) Classify the Programming Languages and explain.

SECTION : C

Attempt all the questions.All questions carry equal marks.(6+6)

Q.1)Discuss the distinctive features of Functional Programming in brief.

Q.2)A file WC.hs is given below.The words function counts the number of words in a string. Modify the WC.hs example in order to count the number of words in a file.

```
-- file: ch01/WC.hs

-- lines beginning with "--" are comments.

main = interact wordCount

 where wordCount input = show (length (lines input)) ++ "\n"
```