

## EndSem Rubric

Q1) Step marking:

The Runnable interface is implemented only once (2 marks).

[NOTE: If there are two implementations, give only 1 mark]

If the program doesn't get executed as expected (1 mark)

Q2) Step marking:

There is a generic class (2 marks)

Program outputs the two complex numbers (1 mark)

Q3) Step marking:

Null pointer exception is handled within the catch block (1 mark)

The same statement is able to print the value 5 after handling the exception (1 mark)

There are no changes in classes A, B & C (1 mark)

Q4) Step marking:

The constructor of B4 is changed to receive a reference of A4 (1 mark)

The instance variable 'a' of B4 is assigned the reference received by the constructor (1 mark)

The constructor call of B4 has an object of A4 (1 mark)

Q5) Step marking:

There is a static initialization block in the Main5 class (1 mark)

There is an instance initialization block in A5 class (1 mark)

There is an instance initialization block in B5 class (1 mark)

[NOTE: If initialization of the members happens elsewhere, give 0.5 marks]

Q6) Step marking:

The comparable interface is implemented (2 marks)

The compareTo function is called from the main function (1 mark)

Q7) Step marking:

The toString() function is overridden in class complex (2 marks)

The complex number gets printed (1 mark)

Q8) Step marking:

The constructor of cmplx is made private (1 mark)

There is a static variable of the same class in cmplx (1 mark)

The object getter function creates the object only when the static variable is null (1 mark)

Q9)

A list is created (1 mark)

An Iterator object is used to extract the contents one by one (2 marks)

Q10)

An assert statement is used with correct conditions ( $c==100$  or  $c==(a+b)*(a+b)$ ) (2 marks)

The program prints the error message "The formula is wrong". (1 mark) [run using - ea]