No corrections (8)

Half Yearly Examination **Computer Applications** **M.M.: 100**
September, 2015 **Class X** **Time: 2Hrs.+ 15Mins.**

Candidates are allowed 15 minutes for reading the question paper, they must NOT start writing during this time.
Answer **all** the questions in **Section A**, and any **Four** from **Section B**.

SECTION A

Question 1:

a) Name the operator used for the allocation of memory for arrays. When is the allocation of memory done when the said operator is used? NEW, Run time [2]
b) What are the accumulator variables? Explain with the help of an example. [2]
c) How is ++a different from a++? pre post- c=c+5 [2]
d) Write an expression in java for the following arithmetic expression : [2]
$a^2+2ab+b^2$ a*a+2*a*b+b*b
e) How many values can a function return? How will you indicate that a function does not return anything? 1, void [2]

Question 2:

a) What is the difference between string data and character data? null [2] double d = ;
b) Write the statement in java to find the square root of a number. Math.sqrt [2]
c) How do you write comments in a java program? // /* */ [2]
d) What is double in java? data Type 8 bytes [2]
e) What is meant by precedence of operators? [2]
↳ order in which op. act on opd.

Question 3:

a) Name the package that contains the class BufferedReader. io [2]
b) Which package gets imported automatically? lang [2]
c) Explain the working of a for loop. [2]
d) What is JVM? interpreter [2]
e) What is a compound statement? { } [2]
f) When do we come across the error "undefined symbol"? no declaration where used. [2]

Question 4:

Write the **dry run** for the following code segments to determine the **output**:

a) String s="positive people do not put others down" [2]
int g=s.indexOf('d'); 16, 17
System.out.println(g);
b) int i=6, j=7, k=8; [2]
System.out.println(i>j && k>i); false
c) int x=5, y=50; [2]
while(x<=y) y=50/5 = 10 (10)
{ y=10/5 = 2
y=y/x;
System.out.println(y);
}
d) int a=6,b=2,c=5; [2]
System.out.println(a/b*c); 6/2*5
3*5=15

SECTION B

Write the programs in Java for <u>any four</u> of the following questions along with the variable description:
[4 x 15 = 60]

Question 5:
Declare an array of size 10 for integers and store the values given by the user in it. Find the maximum and the minimum values entered by the user.

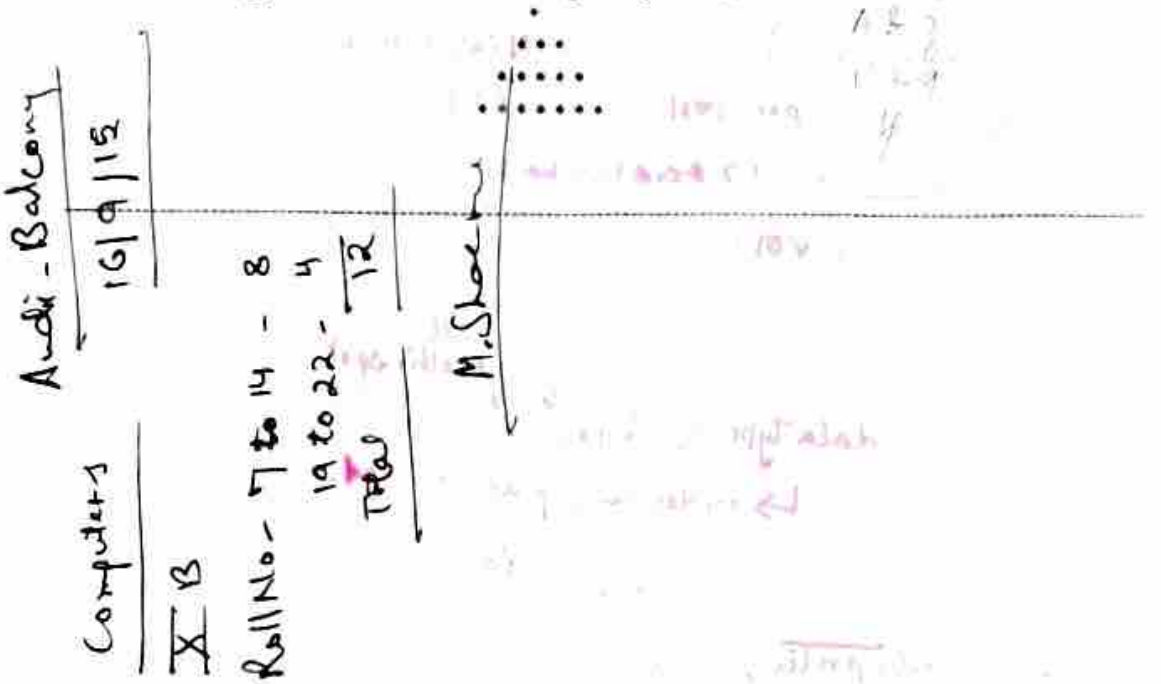
Question 6:
Accept a string value from the user and convert the first character of each word into capital letter.

Question 7:
Write a function to determine whether a number is Armstrong or not. If the number is equal to the sum of the cubes of its digits it is Armstrong. For example $153=1^3+5^3+3^3$.

Question 8:
Accept an amount in rupees from the user and determine how many notes of different denominations would be required to represent this amount beginning from the largest denomination.

Question 9:
Accept a string from the user and count the number of blanks, vowels, and special characters separately

Question 10:
Print the following pattern for n rows where n is given by the user:



(6) MAX & Min from an array of size 10
(7) 1st char of each word in capital
(8) Denominations for an amount.
(9) Bs, vowels, special characters
(10)