GREENLAWNS HIGH SCHOOL
WARDEN ROAD
2025-26

COMPUTER APPLICATIONS
TERMINAL EXAMINATION

Date : 03/10/25 **Marks : 100**
Std : X **Time : 2 Hrs**

Section A (40 Marks)

Question 1

Choose Proper option and write correct answer **[20]**

1. India Mumbai = new India ( ) ;
   Which of the following statement is connect?
   (a) India and Mumbai are objects
   (b) Mumbai is class and India is object
   (c) India is a class and Mumbai is object.
   (d) Mumbai is constant and India is variable

2. double x = (double) 5/2; will store which value in x.
   (a) 2.0 (b) 3.0 (c) 2.5 (d) 2

3. Which method returns double value
   (i) abs ( ) (ii) round ( ) (iii) sqrt ( )
   (a) Only (i) (b) (i) and (ii) (c) Only (iii) (d) (i) and (iii)

4. Which of the following occupies 4 bytes
   (a) int (b) double (c) char (d) boolean

5. Identify correct explicit conversion
   (a) char c = (int) d; (b) char ch = (int) 'B';
   (c) boolean b = (boolean) 'a'; (d) int x = (int) 25.32;

6. Which among the following is used for fixed number of iterations.
   (a) for (b) switch (c) while (d) do while

7. Method Overloading implements.
   (a) abstraction (b) polymorphism (c) inheritance (d) encapsulation

8. cbrt ( ) is method in Java program.
   (a) user defined (b) void (c) in built (d) composite

9. The Jump Statement which Skips next statement?
   (a) continue (b) break (c) return (d) System exit(0)

10. The output of the statement 4 * 6 % 7 is
(a) 24 (b) 24.0 (c) 3 (d) 3.0

11. Assertion (A): Java program is highly dependent on platform and hardware.
Reason (R) : Java can run on any platform irrespective of any operating system because of java byte code.
(a) Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation .

(b) Assertion (A) and Reason (R) are true and Reason (R) is a not correct explanation .

(c)Assertion (A) is true and Reason (R) is false

(d) Assertion (A) is false and Reason (R) is true

12. Assertion (A): System.out.print(hello java); this statement on execution will give an error.
Reason (R) : The error is due to wrong spelling of the system word.
(a)Assertion (A) and Reason (R) are true and Reason (R) is a correct explanation .

(b) Assertion (A) and Reason (R) are true and Reason (R) is a not correct explanation .

(c)Assertion (A) is true and Reason (R) is false

(d) Assertion (A) is false and Reason (R) is true

13. An array a [ ] has 20 elements then index of its elements varies from

(a) 0 to 19 (b) 1 to 20 (c) 0 to 20 (d) 1 to 21

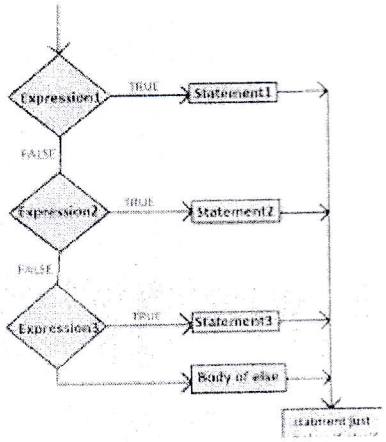
14 . The variable which can be access only in the class where it is declared has access specifier
(a) protected (b) private (c) public (d) static

15. Select correct statement from the following
(a) ++ is a binary operator
(b) Default constructor automatically gets called when an object of class created
(c) return statement returns multiple values
(d) class is a instance of an object

16. In the absence of break statement in switch case , cases are executed one after the other is called
(a) fall below (b) fall through (c) moving down (d) falling off

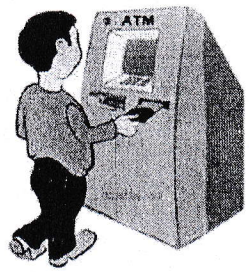
17. The argument variable is _____ variable
(a) local (b) global (c) non static (d) loop

18. Name the control structure shown in the below figure



(a) nested for (b) switch case (c) nested if (d) if else if ladder

19. Identify and name java principle depicted in the below picture.



(a) encapsulation (b) inheritance (c) abstraction (d) overloading

20. Which among the following expression gives boolean result
(a) assignment (b) ternary (c) relational (d) binary

Question 2

(i) Convert the following do while loop into for loop. [2]

```
int n = 83;
do
{
 n = n/10;
 System.out.print (n);
} while (n ! =0);
```

(ii) Write java statement [2]
(a) To display square root of number n.
(b) To store largest of 3 numbers m1, m2, m3 in max

(iii) Write the output

(a) a = 7, b = 8

[2]

x = + + a / 2 + - - b % 3 + a- - + b- - What value will be stored in x ?

(b)
```
int n = 7241 ;
while (n > 0)
{
 n / = 10;
 if (n % 10 ! = 0)
 break ;
 }
System.out.print (n);
```
[2]

(iv)
```
class Perform
 {
 void print (int x)
 {
  System.out.print (x - - * 5);
 }
 public static void main ( )
 {
  Perform ob = new perform ();
   ob.print (7) ;
 }
 }
```
(i) Name formal parameters from code
(ii) write output of the above code
[2]

(v) Sam wants to check if value stored in variable ch is M then print "Mumbai" else print "Wrong Input" . He is getting an error in the following code. Correct the code to get desired output.
```
class show
{
   void print( char ch )
   {
     if ( ch=m &&ch=M)
     System.out.print("Wrong Input");
     else
      System.out.print("Mumbai");
    }
}
```
[3]

(vi)
```
int a [ ]={ 2, 9 ,4 ,16 ,35, 49};
```
(a) System.out.println(a[a.length-1]);
(b) System.out.println(Math.sqrt(a[1]+a[3]));
(c) System.out.print(++a[1] / 2);
(d) System.out.print(a[0]+" "+a[4]) ;
[4]

(vii) Name the following [3]

(a) Data type used in call by value method calling

(b) Other name of punctuator

(c) keyword used to convert variable into constant

Section B (60 Marks)

(Attempt any four questions from this section.)

(Variable description table is necessary for each program)

Question 3.

Design class Taxi as follows:

Member Variable

name - to store customer name

mob – to store mobile number

type – to store type of taxi such as

A for AC car

N for Non – AC Car

km – distance travelled

bill – store the bill amount

void input ( ) - Accept customer name, mobile no, type of car and m travelled.

void Billing ( ) – Calculate bill as per the following criteria

km	Charge / km	
	For Non - AC	For AC
First 1 km	32 Rs.	35 Rs.
Next 5 km	30 Rs./ km	32 Rs./km
Next 7 km	28 Rs./ km	30 Rs./km
More than 13 km	25 Rs. / km	28 Rs./km

void Print ( ) Display name of customer , mobile no. , bill

Call all the above methods in main method with help of an object. [15]

Question 4

Write a program to accept a number from user. Calculate product of even digits and product of odd digits . If even digits product is greater than odd digits product then number is known as Even Pro number otherwise it is not Even Pro number. Display proper message.

e.g. n = 3689

even digits product = 6 x 8 = 48

odd digits product = 3 x 9 = 27

As 48 > 27 it is known as Even Pro number

[15]

Question 5

Design a class to overload a method print( ) as follows :

double print(int x , int n) - $x^1 - x^2 + x^3 - x^4 \ldots\ldots\ldots x^n$

int print(int num) - reverse the number and display
e.g. num= 897 reverse number = 798

void print () - @
@@
@@@
@@@@ **[15]**

Question 6

Write a program to accept 20 numbers in int array . Count total one digit numbers , two digits numbers entered in an array and display total count.
example :

a [ ]= { 2, 12, 4 ,56,87, 9 ,10 ,5, 23, 10 }
total one digit number : 4
total 2 digit numbers : 6 **[15]**

Question 7

Write a program to accept year from user and search in the following array using binary search technique . Display message "Found" if element is found with its position and display "Not found" if it is not there.

int a[ ]= { 1971 ,1976 , 1987, 1991 , 1996 , 1998 , 1999 , 2002 , 2004, 2006} **[15]**

Question 8

Design a class to overload method perform () as follows : .

void perform (int a , int b) - Compare a and b if a is larger than b then display product of a and b otherwise display product of a and b

boolean perform(char ch) - Check if character is uppercase or lowercase. If uppercase return true otherwise return false

int perform(int n) - calculate factorial of a number
example : factorial of 5 is 5 ! = 1x2x3x4x5=120 **[15]**