INDIAN SCHOOL SOHAR
PRE-FINAL EXAMINATION (2015-2016)
INFORMATICS PRACTICES (065)

- *Please check that this question paper contains 4 printed pages.*
- *Please check that this question contains 5 questions.*
- *Please write down the Serial Number of the question before attempting it.*

Class: XI   *Maximum Marks: 70*

Date: 14 -02-2016   *Time Allowed: 3 Hours*

Note: (i) All the questions are compulsory.
   (ii) Answer the questions after carefully reading the text.

1.

a) What is System Software? Write one point of difference between Compiler and Interpreter.   2

b) Differentiate between Volatile and non-Volatile Memory.   2

c) Write Short note on :-   2

   i) Digital Certificate   ii) Firewall

d) What does a bus mean?   1

e) What is an Operating System? Name the types of Operating System.   2

f) What are the disadvantages of OCR?   1

2.

a) What are the differences between a getText() and getPassword() methods?   1

b) Differentiate between the following

   i) Runtime and Logical Error.   2

   ii) if and switch   2

c) Write the name of the method which is used to enter value using dialog of

   JOptionPane control   1

d) Which function is used to substitute NULL values in a query result?   1

e) Define the term Alternate and Candidate keys using suitable example.   2

f) Differentiate between CHAR and VARCHAR datatypes.   2

g) Write four advantages of DBMS.   2

h) What are Constraints?   1

i) What is the use of UPDATE command?   1

j) Explain Sysdate and Now function.   2

3.

a) What will be the output of the following code segments?

   i) int a=10;   2
   ```
   int b=12;
   int x=5 , y=6;
   while (a<=b)
   {
   if (a%2==0)
   x=x + y;
   else
   x=x-y;
   a=a+1;
   }
   System.out.Println(x);
   ```

   ii) int num=6;   2
   ```
   num=num+1;
   if(num>5)
   jTextField1.setText(" "+num);
   else
   jTextField1.setText(" "+(num+5));
   ```

b) Rewrite the following if-construct using switch case statement: 2
   ```
   if (ch=='Y' ){
    opt=opt-10;
    jlabel1.setText(" "+opt);
   }
   else
   if (ch=='y'){
    opt+=10;
    jLabel1.setText(" "+opt);
   }
   else
   jLabel1.setText("Back to home");
   ```

c) Rewrite the following fragment using *for* loop: 2

   ```
   int s=0;
   while(s<=13){
   if(s%2==2){
     System.out.println("Color is red");
   }
   else{
   System.out.println("Color is blue"); }
   ```

```
        System.out.println("New color");
        s=s+1; }
```

d) Rewrite the corrected program after removing errors, underline the corrections: 2

```
int x=Integer.ParseInt(txtnum.getText);
int i=1;
do(i<=x){
    txtresult.setText(x);
    i==i+2;
}while;
```

e) Write Java code to print the following series in a text area named as displaytext.   2
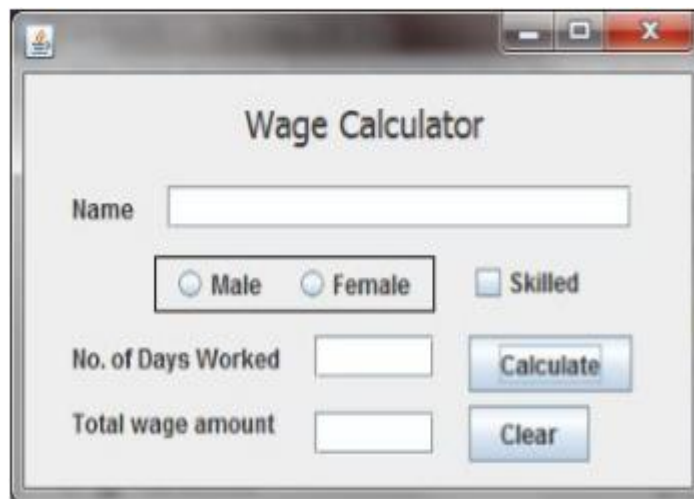
   1 2 4 8 16 32 64 128

f) Write a program to check whether a given number is an Armstrong number or not.   2

   (e.g.: $371= 3^3+7^3+1^3$)

g) Read the following case study and answer the questions that follows:

   The Milton Casting Company has developed an application to calculate the wage of its workers.

   The Wage rates are Rs.150/- (per day) for male and Rs.130/- for females.

  An additional amount Rs.50/- per day is paid if worker is skilled

   i) Calculate and display the Total Wage amount in the relevant text box when Calculate   2
     Button is clicked.

   ii) When Clear Button is clicked, all the text boxes ,radio buttons and check box get cleared
     and Male option is selected.   1

   iii) Ensure that the user does not enter a negative or a zero value in No of days worked text field.
     If a negative or Zero value is entered, then the text field should be made blank and a
     warning message should be displayed.   2

4.

a) Write the SQL commands for the following:

School bus: Table structure

Column name	Data Type	Constraint
RtNo	Char(4)	
Routes	Varchar(25)	Not Null
Distance	Int(3)	
Transporter	Varchar(30)	
Charges	Int(4)	

Table data:

RtNo	Routes	Distance	Transporter	Charges
R1	Sohar	10	Ali Tra	1000
R2	Tareef	20	Speed Tr	3000
R3	Saham	30	Ahmed Co.	4500
R4	Shinas	50	Bhalla Co.	3000
R5	Cornish	20	Zuhail Tr.	2000

   i. Create table "Schoolbus" based on the table structure given above.   2

  ii. Insert a new row with values: R6, Falaj, 25,Gulf Tr.,4000.   1

 iii. Add Primary key constraint on Rtno.   1

 iv. Change the name of column Charges to Fare.   1

  v. Display RtNo, Transporter and charges for saham route school bus.   1

 vi. Display all the details from above table in ascending order of Distance.   1

vii. Increase the charges of Bhalla Co. by 20.   1

viii. List the details of Transporters travelling through routes starting with S as the first character   1

 ix. Add a new Column No_of_Students as Integer(3) into the table.   1

  x. List the Rtno,No_of_Students,Routes from Schoolbus whose charges are above 3000;   1

 xi. Change the Transporter of Cornish to Sahara Tra.   1

xii. Remove column Distance.   1

b) Write the output of the following Queries:

   i)   Select 2%5+ pow(5,2);   1

  ii)   Select DayofMonth('2016-02-11')%5 ;   1

 iii)   Select Round(768.15,-2),Truncate(768.15,-2);   1

 iv)   Select Char(87,72.9,"78.9");   1

c) Remove the errors(if any) from the following queries and rewrite the corrected ones.

   i)   Select Dayname(date());   1

  ii)   Select Instr("Schoolbus","h");   1

5.

a) Name any two e-governance websites of India.   1

b) How has e-learning benefited the students   1

c) Describe any two positive impacts of e-business.   2

d) What are the limitations of e-learning?   1