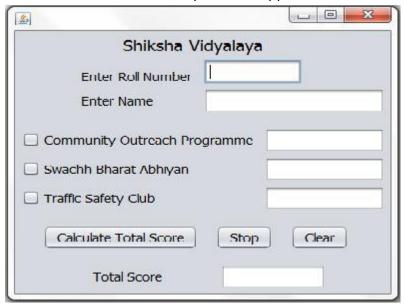# INDIAN SCHOOL SOHAR
## II TERM EXAM (2017-18)
## INFORMATICS PRACTICES (065)

**Class: XII**                                                                    **Marks: 70**

**Date: 2017**                                                                    **Time: 3 Hours**

*Note:* **(i)        All questions are compulsory**

**(ii)       Answer the questions after carefully reading the text.**

| | | | |
|---|---|---|---|
| 1. | a) | Write down two merits and two demerits of the following topologies | 2 |
| | | i. STAR                                ii. Tree | |
| | b) | Write the advantages of using Unicode to represent text. | 2 |
| | c) | Write two advantages and two disadvantages of Coaxial cable. | 2 |
| | d) | How do Computer networks reduce hardware costs of an organization? Explain with the help of example. | 2 |
| | e) | Expand the following terms: ISCII, OSI | 2 |
| 2. | a) | What is the purpose of *break* statement in a *switch case* statement? | 2 |
| | b) | Which HTML code for creating a drop down box named as Country. Fill the following values into the box: India, Oman, Sri Lanka and Bangladesh. | 2 |
| | c) | Write HTML code for creating the following table. Also set its background colour as silver | 2 |

| A | D |
|---|---|
| B | E |
| C | F |

| | | | |
|---|---|---|---|
| | d) | Rewrite the following XML code to make it well formed: | 2 |

&lt;name&gt;Jeevan&lt;/name&gt;

&lt;name&gt;Raunak&lt;Name&gt;

&lt;name&gt;Vasu&lt;name)

| | | | |
|---|---|---|---|
| | e) | Write short notes on: Multiple and Multilevel Inheritance. | 2 |
| 3. | a) | Distinguish between Single Row and Aggregate functions of MySQL. | 2 |
| | b) | Which one of the following SQL queries will display all Employee records containing the word "Amit", regardless of case (whether it was stored as AMIT, Amit, or amit etc.)? | 2 |

(i) **SELECT * from Employees WHERE EmpName like UPPER '%AMIT%';**

(ii) **SELECT * from Employees WHERE EmpName like '%AMIT%' or '%AMIT%' OR '%amit%';**

(iii) **SELECT * from Employees WHERE UPPER(EmpName) like '%AMIT%';**

     c)     What is the effect of *Commit* and *Rollback* statements on a transaction?     2

     d)     What are multirow functions?     2

     e)     What is the purpose of default clause in a switch statement?     2

4.     The students of "Shiksha Vidyalaya" work for different extracurricular activities like 'Community Outreach Programme', 'Swachh Bharat Abhiyan' and 'Traffic Safety Club'. The Programmer at the school has developed a GUI application as shown below :



A student can participate in more than one activity.Each student gets 10, 12 and 15 points respectively for activities-namely Community Outreach Programme, Swachh Bharat Abhiyan and Traffic Safety Club.Help the programmer to write code for the following:

     i)     Disable textfields for all activities along with the total score     1

     ii)     When 'Calculate Total Score' button is clicked, the points for each activity (that is selected) should bedisplayed in the textfield in front of that activity's checkbox and the Total Score should be displayed in the appropriate textfield.     2

     iii)     When Clear button is clicked, all the textfields and checkboxes should be cleared.     1

     iv)     When Stop button is clicked, the application should close.     1

5.     a)     Find errors from the following code segment and rewrite the corrected code underlining the corrections made:     2

```
public static void main (String [] args){
Int N=Integer.parseInt(nTF.getText);
    do (N=<32){
       N==2*N;
       System.out.print(N);
    }while;
}
```

b) Find the output: 2

```
main(String []args){
    long a=78345,s1=0,s2=0,r;
    while(a>0){
        r=a%10;
        if (r%4==0) s1+= r;
        else s2+=r; a/=10;
    }
    System.out.println("S1 ="+ s1+"S2 ="+ s2);
}
```

c) Rewrite the following code using 'for' loop: 2

```
inti=1, j=2;
while(i<=20){
        j+=i;
        i+=2;
        }
System.out.println("i+j="+i+j);
```

d) Write a method that reads an integer as a parameter and returns true if the number is palindrome else returns false. 2

e) Given a String object namely 'subject', having value as "123" stored in it. What will be the result of following? 2

```
String subject="123";
jTextArea1.append(""+(subject.length()+Integer.parseInt(subject)));
jTextArea1.append("\n"+subject.substring(1,2));
```

6. a) Write the SQL command to create the following table including its constraints. 2

Table :**DOCTOR**

| Column Name | Data Type | Size | Constraint |
|---|---|---|---|
| ID | Int | 3 | Primary Key |
| Name | Varchar | 30 | NOT NULL |
| Dept | Varchar | 15 | |
| Exp | Int | 2 | |
| DOA | Date | | |
| Sex | Char | 1 | |

b) Answer the questions based on the tables given below:

| | **Table: Doctor** | | | | | | **Table: Salary** | | |
|----|---------|--------|-----|------------|-----|---|-------|---------|-------|
| ID | Name | Dept | Exp | DOA | Sex | ID | Basic | ConsFee | Allow |
| 1 | Pankaj | Cardio | 10 | 2011-10-10 | M | 1 | 25000 | 200 | 2000 |
| 2 | Shalini | Gyn | 23 | 2010-01-01 | F | 2 | 23000 | 150 | 1500 |
| 3 | Sanjay | Med | 12 | 2010-12-12 | M | 3 | 43000 | 210 | 4000 |
| 4 | Manvi | Gyn | 9 | 2009-01-07 | F | 4 | 35000 | 160 | 3000 |
| 5 | Govind | Ortho | 15 | 2009-10-05 | M | 5 | 40000 | 280 | 4000 |

i. Display the names of all male doctors who are in Medicine department having more than 10 years experience.   1

ii. Display the minimum basic in each department.   1

iii. Display the average salary of all doctors working in ENT department. (Salary=Basic+Allowance)   1

iv. Show name in uppercase joined with first three characters of department in lowercase.   1

v. Display details of doctors whose name start with 'S' but does not end with 'y'   1

vi. List details of medicine doctors getting allowances in the range 1000-2000   1

vii. List the doctor IDs whose basic is not 10000, 20000 or 30000.   1

viii. List the doctors appointed before 2010   1

ix. List a report as <Name> charges a consultation fee of <ConsFee> in the descending order of consultation fee.   1

x. Increase the consultation charges by 10%, if it is less than 200.   1

xi. Add a new column 'Phone' as int into Doctor table.   1

xii. Delete salary details of doctors getting allowances less than 150.   1

xiii. Add a not null constraint of Dept.   1

xiv. What will be the degree and cardinality of cross join of both the tables?   1

xv. Find the error(s):   2
    I) Select Concat(Concat(Name, Exp),Dept) from Doctor;
    II) Select TRIM(Trailing and Leading '#' from '##TWITTER##');

xvi. Predict the O/P of:   2
    I) Select instr(substr("truncated",-5),'t');
    II) Select Round(7659.760,-1), Truncate(7659.760,-1);

7. a) How has popularity of e-Business benefited a common man? Write domain name of one popular e-Business site as an example.   2

   b) Web address of national portal of India is:   1
     I) India.gov.in           II) GOI.gov.in
     III) India.nic.in          IV) None of the above

   c) What are the major e-governance challenges for Indian villages?   1

   d) How has our society benefited from e-learning?   1

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