



**INDIAN SCHOOL SOHAR
PRE BOARD EXAM (2017-18)
INFORMATICS PRACTICES (065)**

Class: XII

Date: 11.01.2018

Marks: 70

Time: 3 Hours

Note:

- *Please check that this question paper contains 5 printed pages.*
- *Please check that this question paper contains 7 questions.*
- *Please write down the Serial Number of the question before attempting it.*
- *All questions are compulsory.*
- *Answer the questions after carefully reading the text.*

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- | | | | |
|----|----|---|---|
| 1. | a) | What are the services provided by a Server in a network environment? | 2 |
| | b) | Explain the following terms: | 2 |
| | | i) LINUX ii) FSF | |
| | c) | What is the purpose of: Repeater and UPS | 2 |
| | d) | Expand the following terms. | 2 |
| | | i) TTF ii) FLOSS | |
| | e) | Write any two preventive measures for network security. | 2 |
| 2. | a) | Write any four features of XML. | 1 |
| | b) | How is tag different from tag? | 1 |
| | c) | Write HTML code to: | 2 |
| | | i) create a link wild.html for the text "Wild Life in park". | |
| | | ii) draw a horizontal line that covers half the browser window | |
| | d) | What do you mean by web browser? | 1 |
| | e) | What is the primary purpose of inheritance? | 2 |
| | f) | Write a function in java that takes an integer number as parameter and returns its sum of digits. | 2 |
| | g) | Which tag is used to specify : | 2 |
| | | a. Table data | |
| | | b. Table header | |
| | | c. Table row | |
| | | d. Table border | |
| 3. | a) | What does isolation property imply? | 1 |
| | b) | Neha is not able to enter the details of students born after '30-Mar-2007'. Which | 1 |

- constraint might have specified when the table was created?
- c) What is the purpose of the following query: 1
`SELECT COUNT(*) FROM ELECTION GROUP BY city;`
- d) What is the role of UNIQUE constraint? How is PRIMARY KEY constraint different from UNIQUE key constraint? 2
- e) What is the significance of ORDER BY clause in SQL query? 2
- f) 2
- | Activity Name | ParticipantNo |
|---------------|---------------|
| Relay 100X 4 | 16 |
| High Jump | 10 |
| Shot Put | 12 |
| Long Jump | 12 |
| Discuss Throw | 10 |

Based on the information given in ACTIVITY table, find the output of the following queries.

- a) `SELECT COUNT(DISTINCT ParticipantNo) FROM ACTIVITY;`
- b) `SELECT ActivityName FROM ACTIVITY WHERE ActivityName LIKE ‘%p’;`
- g) A table Employee in a database has a 4 columns and 2 rows in it. What is the cardinality and degree if 3 more columns are added in the table? 1
4. a) What is an abstract class? 1
- b) Given an int variable K with value 253. It is to be converted into equivalent string i.e “253”. What are the two ways of doing that? 1
- c) Write HMTL code for placing MONUMENT.GIF at the centre of the web page. 1
- d) Rewrite the following program code using do while loop. 2

```
int i=1, sum=0;
while (i<15){
    sum +=i;
    i +=2;
}
```
- e) Rewrite the corrected following code by underlining the corrected area 2

```
int i,c,a=5,b=0;
for(i=0,i<20,i++){
    if b=0 then
        break;
    else
        c=a/b;
    system.out.show(“Quotient”+c);
```
- f) Rewrite the following code using if ..else. 2

```
switch(ch) {
    case ‘a’:
    case ‘A’: b++;
```

```

    case 'u':
    case 'U': ++v;
    default: others++;
}

```

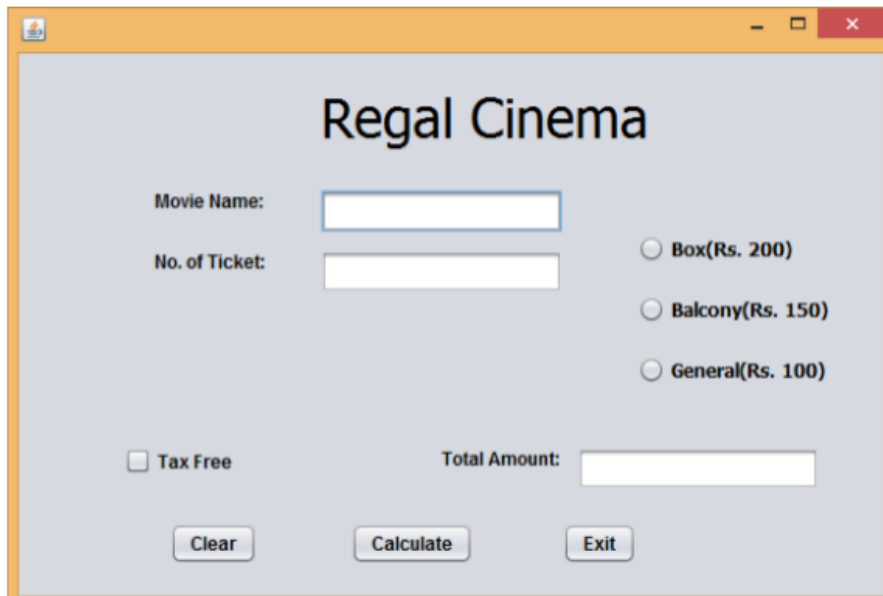
g) What will be the output after executing the following code? 2

```

int fun(int n)
{ int r=(n%2==0)?1:0;
  return r;
}
int t=5,p;
do
{ p=fun(t);
  if(p==1)
    System.out.println(t+p);
  else
    System.out.print(t+p);
}while(++t<10);

```

5. Regal Theater has computerized its ticketing system. The programmer has developed a GUI application in Netbeans as shown below:



At ticket counter, three types of tickets(Box,Balcony and General) at the rate of 200,150 and 100 respectively are available, If the movie is Tax Free, then the total amount should be deducted by Rs 25 per ticket. (ii) 1 (c).

- i) What should be done so that only one of the radio button(Box,Balcony and General) can be selected at a time. 1
- ii) Write code to do the followings: (a) Calculate and display the Total amount in the corresponding text field when calculate button is pressed. 3 (b) 1
 Clear all the text fields.

iii) Close the application when Exit button is clicked

2

6. Answer the questions based on tables given below:

STUDENT

Column Name	Data Type	Size	Constraint
RNo	Int		
SName	Varchar	30	NOT NULL
Age	Int		
TNo	Char	4	
DOA	Date		
Fee	Int		

Student

RNo	SName	Age	TNo	DOA	Fee
1	Krippe	15	T01	2011-07-01	5000
2	Ravina	14	T02	2011-07-01	4500
3	Karan	15	T02	2012-08-11	4000
4	Tarun			2011-02-21	4000
5	Aryan	15	T01	2012-12-31	

Teacher

TNo	TName	Dept	Sal
T01	Ram	Computer	45000
T02	Shyam	Maths	40000
T03	John	Computer	

- a) Write the SQL command to create the table Student including its constraints. 2
- b) Add primary key constraint on RNo. 1
- c) Count the number of students with each teacher. 1
- d) List the teachers whose salary is not known. 1
- e) Decrease the fee of all students by 10% if it is more than 4500. 1
- f) List the report displaying TNo, Sal and Bonus(20% of sal) of all teachers. 1
- g) List details of students admitted before 2012. 1
- h) List the teachers whose name has 'am' as last characters and 'R' as starting character. 1
- i) Display RNO, TNO and Dept of all students in increasing order of Dept and decreasing order of TNo. 1
- j) Show details of teachers whose salary is in the range 40000-50000 (including both values) 1
- k) Find the difference between highest and lowest fee. 1
- l) List teachers in same department as that of John. 1
- m) Write the O/P of:
i) SELECT POW(INSTR('Coordination ','o'),3) as ABC from dual;
ii) Select SName, TName from student, teacher where student.TNo=Teacher.TNo;
iii) Select Avg(Sal) from teacher; 3
- n) Find error(s), if any, and rewrite the corrected code:
i) Delete all from student; 3

- ii) Select TName as Teacher Name from teacher;
 - iii) Select student.* from student where fee>4000 and <5000;
- o) What output will you get, when an equi join query is executed to get the name of student from Student table and corresponding Dept from Teacher table? 1
7. a) What are the features of a good front end? 2
- b) Explain any two projects of e-Governance in India. 1
- c) What is m-commerce? 1
- d) Draw an E-R diagram showing many actors act in a show. 1

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