INDIAN SCHOOL SOHAR
PRE BOARD EXAMINATION (2019-20)
INFORMATICS PRACTICES (265)

CLASS: XII   **MAX. MARKS: 70**
DATE: 13/01/2020   **DURATION: 3 HRS.**

Instructions:
- *Please check that this question paper contains 5 printed pages.*
- *Please check that this question paper contains 8 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 following software used for?   2
      (i) Python   (ii) Mozilla Firefox

   b) Compare HUB and SWITCH   2

   c) Explain in brief networking goals and needs.   2

   d) Differentiate between Star and Bus topology   2

   e) Write any two preventive measures for network security.   2

2. a) What are Dynamic web pages? How do they work?   2

   b) Explain the meaning of the following statement with the help of example.   2
      "Tags are not predefined in XML"

                                  Or

      Write HTML code to set background colour as silver, "HTML" as header-1 text in blue colour. Also set top and left margins to 60.

   c) Write HTML code to create the following: 2

RollNo	Name	Marks	
		Theory	Practical
1	George	65	30
2	Messi	60	29

                                  Or

      Explain cellspacing and cellpadding attributes of table tag using suitable examples.

   d) Given an int variable K with value 275. It is to be converted into equivalent string i.e.   2
      "275". What are the two ways of doing that?

e) Write a method 'sign', in Java, that takes an integer parameter 'n' and returns -1 if the number is negative, 0 if the number is zero and 1 if the number is positive.   2

<center>Or</center>

What is the primary purpose of inheritance?

f) Observe the following code and find which statement will never execute: 1

```
int count=1;
do
    {
    if (count < 15)
    jTextField.setText("continue");
    else
            jTextField.setText("break");
    count+=3;
    }while(count<=10);
```

3. a) What is a Rollback statement? What is its effect on a transaction?   2

b) Write any two advantages and disadvantages of a Database Management System.   2

c) Given below is the 'Department' table :   2

DEPCODE	DEPNAME
101	ADMIN
102	RECEPTION
103	PERSONNEL

SET AUTOCOMMIT = 0;
UPDATE Department SET DEPNAME = 'OFFICE' WHERE DEPNAME = 'ADMIN';
INSERT INTO Department VALUES (104, 'HRD');
UPDATE Department SET DEPNAME = 'FRONT OFFICE' WHERE DEPNAME = 'RECEPTION';
COMMIT;
DELETE FROM Department WHERE DEPNAME = 'FRONT OFFICE';
ROLLBACK;
SELECT * FROM Department;

What will be the output of the above given SELECT statement?

d) Write a command to add a primary key constraint on 'ID' column in 'ABC' table.   2

e) What are NOT NULL and DEFAULT constraints? Explain using suitable examples.   2

f) Write SQL command to display the position of "My" in the string "Enjoying MySQL". 1

g) Find the error(s) in the following query and rewrite it after removing them: 1
Delete * from Book where price=NULL;

4. a) Find the output: 2
```
int x,y=0;
for(x=1;x<=5;++x)
y=x++; --y;
```

OR

What are entry control loops?

b) Find the errors from the following code segment and rewrite the corrected code 2
underlining the correction made:
```
Int y=3;
Switch(y) {
   case 1: System.out.println("yes its one");
   case >1 && <3: System.out.println("yes it is more than one"); break;
   case else: System.out.println("invalid number"); }
```

c) Rewrite the following program code using do while loop. 2
```
int i=1, sum=0;
while (i<15){
   sum +=i;
   i +=2;
}
```

OR

Rewrite the following code using while loop.
```
int a=10, b=0;
for( ;a>5;a--){
   b+=a;
   System.out.print(b);
}
System.out.print("a="+a+" b="+b);
```

d) Rewrite the corrected following code by underlining the corrected area 2
```
while num > 0;
{
remainder assigned = num % 10;
reverse = reverse * 10 + remainder;
num / 10 = num;
}
```

e) Write the values that will be assigned to a, b, c and m after executing the following 2
Java code :
```
String p, q, r, a, b, c;
int m; p = "AISSE2017"; q = "Learning Java"; r = " ProgrammingFun ";
```

```
a = p.substring(3,6);
b = q.concat(p);
c = r.trim();
m = c.length();
```

5. Ms. Fauzia works as a programmer in "TelTel Mobile Company" where she has designed a software to compute charges to be paid by the mobile phone user. A screenshot of the same is shown below:

TelTel Mobile Company	
Name	
Mobile Phone Number	
Number of Calls Made	
Number of SMSs Sent	
☐ Mobile Data Plan	
Calculate Charges Clear Exit	
Calls and SMS Charges:	
Mobile Data Plan Charges:	
Amount to Pay:	

i) Each Call is charged at Rs.1.00 . Each SMS is charged at Rs. 0.50. Users can also opt for Mobile Data Plan. Charges for Mobile Data Plan are flat Rs.50.00.
Help Ms. Fauzia in writing the code to do the following:
When the 'Calculate Charges' button is clicked, 'Calls and SMS Charges', 'Mobile Data Plan Charges' and 'Amount to Pay' should be calculated and displayed in the respective text fields. 'Amount to Pay' is calculated as:
Calls and SMS Charges + Mobile Data Plan Charges(if any)   2

ii) When 'Clear' button is clicked, all the textfields and checkbox should be cleared.   1

iii) When the 'Exit' button is clicked, the application should close.   1

6. Write a SQL command for creating a table "**Workshop**" as per structure given below: 2
Workshop

Field	Type	Constraint
WorkshopId	integer	Primary Key
Title	Varchar(50)	
DateWorkshop	Date	
NumSpeakers	Integer	

Table: Event

EventId	Event	NumPerformers	CelebrityID
101	Birthday	10	C102
102	Promotion Party	20	C103
103	Engagement	12	C102
104	Wedding	15	C104

Table: Celebrity

CelebrityID	Name	Phone	FeeCharged
C101	Faiz Khan	99101956	200000
C102	Sanjay Kumar	893466448	250000
C103	Neera Khan Kapoor	981166568	300000
C104	Reena Bhatia	65877756	100000

7.   Answer the questions based on tables given below:

a)   Change size of name column from varchar(20) to varchar(30)   1

b)   Name the Primary keys in both the tables and Foreign key in 'Event' table. Can NumPerformers(Number for performers) be set as the Primary key? Give reason.   2

c)   How many rows and columns will be present in the Cartesian join of the above mentioned 2 tables?   1

d)   List the celebrities whose phone number is not known.   1

e)   Decrease the fee of all celebrities by 10% if it is more than 250000.   1

f)   List the report displaying Event, Name and Discounted fee(20% of fee) of all events.   1

g)   List details of all events excluding Engagement and Wedding   1

h)   List the celebrities whose name has 'ee' as any characters.   1

i)   Find the total fee collected by each celebrity in all the events.   1

j)   Show details of celebrities whose fee is not in the range 20000-30000 (including both the values)   1

k)   Find the difference between highest and lowest fee.   1

l)   Add a new column EventDate as date into Event table.   1

m)   Write the O/P of: 2

    i) Select Name, NumPerformers from event e, celebrity c where e.celebrityID=c.celebrityID;

    ii) Select Avg(feeCharged) from celebrity where name like '%an%';

n)   What output will you get, when an equi join query is executed to get the name of the event from Event table and corresponding name of the celebrity from Celebrity table?   1

8. a) List any four main requirements that a company needs to put in place to offer an online shopping facility to customers   2

    b) List two advantages of e-governance to a disabled person.   1

    c) Write two examples where e-governance has reduced Paper work.   1

    d) Draw an E-R diagram showing many actors act in a show.   1

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