

PRE-BOARD EXAMINATION II 2019-2020
INFORMATICS PRACTICES - 265

Time : 3Hrs
Max.Marks :70

CLASS: XII

General Instructions:

- i. All questions are compulsory.
- ii. Answer the questions after carefully reading the text.

1.
 - a) Explain any two transmission modes ? 2
 - b) How a Phonetic text entry is different from Keymap based text entry? 1
 - c) It's an era of networking! Almost everyone and everything is connected through one way or the other, hats off to the technology. We have never been so much linked as we are today.
Daniel has just started his hands on practice of networking. Help him in the following:
 - i) He has just connected 10 computers of his resource room to establish a network. Name the network (LAN/MAN/PAN/WAN) which will be formed. 2
Mention any two main benefits which Daniel could achieve by establishing a network. 2
 - ii) Help him in identifying the correct topology which has following characteristics: 2
Its very easy to diagnose the fault in this topology.
Failure of central hub/switch leads to failure of the entire network.
Depict the topology by drawing the diagram showing 4 interconnected computers through central hub/switch.
 - d) What is meant by "Denial of Service" with reference to Internet service. 1
 - e) Explain the following with example: 2
 - i) Physical Address
 - ii) Logical Address
 - iii) Open Software
 - iv) Proprietary Software
2.
 - a) Explain ordered and unordered lists in HTML with example code. 2
 - b) Explain the difference between XML and HTML. 2
 - c) After typing the HTML code using a text editor, how do you see how it would look as a web page? 1
 - d) Explain the basic structure of an HTML document. 2
 - e) Consider the statement : 1

```
first_name = "Ayana";
```

 - (i) What is the datatype of first_name ?
 - (ii) Is 325 the same as "321" ? Give reason.
 - f) What are the difference between if and switch statement ? 1
 - g) Explain the image tag in HTML with its attributes. 1
3.
 - a) What is MySQL ? 1
 - b) Is NULL value the same as 0 (zero) ? Write the reason for your answer. 1
 - c) Write the UPDATE command to increase the commission (Column name : COMM) by 500 of all the Salesmen who have achieved Sales (Column name : SALES) more than 200000. The table's name is COMPANY. 1

- d) While using SQL pattern matching, what is the difference between ‘_’ (underscore) and ‘%’ wildcard symbols ? 1
- e) How is Primary key constraint different from Unique key constraint ? 1
- f) Write one similarity and one difference between CHAR and VARCHAR data types. 2
- g) What is a Transaction ? Which command is used to make changes done by a Transaction permanent on a database ? 2

4.

- a) Write the output that will be generated by the code given below : 2

```
int i; i = 7;
int r; r=8;
while (i<=10)
{
System.out.println(r*i); i = i+2;
}
```

- b) The following code has some error(s). Rewrite the correct code underlining all the corrections made. 2

```
int marks, temperature;
marks = jTextField1.getText();
temperature = Integer.parseInt(jTextField2.getText());
if (marks < 80) and (temperature >= 40)
{
System.out.println("Not Good");
}
else;
{
System.out.println("OK");
}
```

- c) How many times will the following WHILE loop execute ? 2

```
int y = 7, sum =0;
while (y<= 15)
{
sum = sum + y; y = y+2;
}
```

- d) Rewrite the following program code using IF ELSE IF instead of SWITCH statement : 2

```
String tour;
int cl = Integer.parseInt(jTextField1.getText());
switch (cl)
{
case 8: tour = "\n You are going to Camp Ramgarh"; break;
case 9: tour = "\n You are going to Manali, Rohtang Pass"; break;
case 10: tour = "\n You are going to Chail"; break;
default: tour = " No School tour for you this time";
}
```

- e) Write the values of sum and x after execution of the following code : 1

```
int sum,x;
sum = 7; x = 5;
sum = sum + (x++);
```

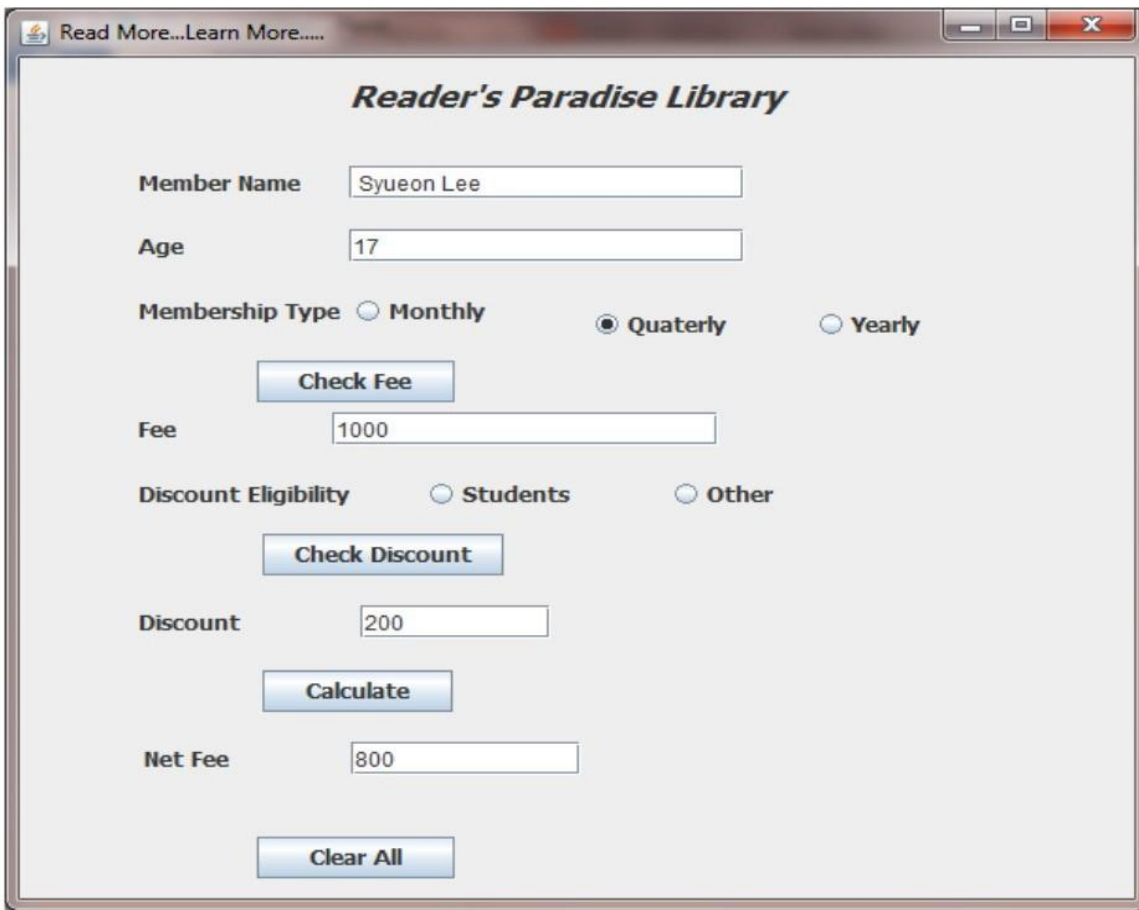
f) What will be the contents of jTextField1 and jTextField2 after executing the following code :

1

```
String s = "Best";  
jTextField1.setText(s.length()+" ");  
jTextField2.setText(s.toUpperCase());
```

5.

a) Mr. Ashish works as a programmer in “Universal Technologies Pvt. Ltd.”. He has designed a Library software to generate the membership fee depending upon the membership type considering discount eligibility as well. A screenshot of the same is shown below:



Help him in writing the code to do the following:

i. After selecting appropriate Radio Button, when ‘Check Fee’ button is clicked, fee should be displayed in the respective text field according to the following criteria:

3
3

Membership Type	Fee
Monthly	500
Quarterly	1000
Yearly	1500

ii. After selecting appropriate Radio Button, when ‘Check Discount’ button is clicked, appropriate discount should be displayed in the respective text field according to the following criteria:

2

Discount Eligibility	Discount
Students	200
Other	100

iii. When ‘Calculate’ button is clicked, Net Fee should be calculated and displayed in the respective text field as per the given formula:

$$\text{Net Fee} = \text{Fee} - \text{Discount}$$

1

iv. When ‘Clear All’ button is clicked, All the text fields should be cleared.

1

6.

a) Consider the following table:

Table: PharmaDB

RxID	DrugID	DrugName	Price	PharmacyName	PharmacyLocation
R1000	5476	Amlodipine	100.00	Rx Pharmacy	Pitampura, Delhi
R1001	2345	Paracetamol	15.00	Raj Medicos	Bahadurgarh, Haryana
R1002	1236	Nebistar	60.00	MyChemist	Rajouri Garden, Delhi
R1003	6512	VitaPlus	150.00	MyChemist	Gurgaon, Haryana
R1004	5631	Levocitrezine	110.00	RxPharmacy	South Extension, Delhi

Write commands in SQL for (i) to (iv):

4

- i. To increase the price of “Amlodipine” by 50.
- ii. To display all those medicines whose price is in the range 100 to 150.
- iii. To display the Maximum price offered by pharmacy located in “Gurgaon”
- iv. To display the Drug ID, DrugName and Pharmacy Name of all the records in descending order of their price.

On the basis of the Table PharmaDB ,write the output(s) produced by executing the following queries:

2

- v. `SELECT RxID, DrugName, Price from PharmaDB where PharmacyName IN (“Rx Pharmacy”, “Raj Medicos”);`
- vi. `SELECT PharmacyName, COUNT(*) FROM PharmaDB GROUP BY PHARMACYNAME;`

b) Consider the tables given below which are linked with each other and maintains referential integrity:

Table: SAP

SAPID	ItemCode	ItemName	ItemStorage Location
S1001	1001	Receiver	W12-B3-R24
S1002	1002	Transponder	W13-B7-R87
S1003	1003	Battery Bank	W21-B1-R87
S1004	1004	Inverter	W21-B11-R2
S1005	1005	Genset	W22-B15-R16

Table : Store

StoreID	ItemCode	StoreLocation	ReceivedDate
1201	1001	Hauz Khas	2016/05/20
1202	1002	Rajouri Garden	2016/06/14
1203	1003	Rohini	2016/05/06
1204	1004	Hauz Khaas	2016/07/15
1205	1005	Rajendra Place	2016/05/27

With reference to the above given tables, write commands in SQL for (i) and (ii) and output for (iii) below:

- i. To display the ItemCode,ItemName and ReceivedDate of all the items . 2
 - ii. To display SAPID,ItemName,ItemStorageLocation of all the items whose Received date is after 2nd May 2016. 2
 - iii. SELECT SAPID,ItemName,STOREID FROM SAP,Store WHERE SAP.ItemCode=Store.ItemCode AND StoreLocation = "Hauz Khas"; 2
 - iv. What will be the degree and cardinality of the cartesian product formed while combining both the above given tables 'SAP' and 'Store' ? 1
 - v. Sangeeta is not able to add a new record in the table 'Store' through the following query: 1
 Insert into store values (1206,1006,'Karol Bagh', ' 2016/07/25');
 - Identify the error if there is any.
 - vi. Explain 2 Group (Aggregate) functions of SQL. 2
- c) Write MySQL command to create the Table 'LIBRARY' with given constraints. 2

Table : LIBRARY

COLUMN_NAME	DATATYPE(SIZE)	CONSTRAINT
BookId	Int(10)	Primary Key
BookName	Varchar(40)	Not Null
Type	Char(4)	
Author	Varchar(40)	
No_Copies	Int(6)	
Price	Decimal(8,2)	

7.

- a) Mention the social and economic benefits of ICT. 2
- b) What are the objectives of Object Oriented Programming? 2
- c) Ms. Rachna, works as a programmer in 'Plan My Trip' travel company. She wishes to design a Flight booking page. Help her in choosing appropriate controls for the specified task from Text field, Label, Radio button, Check box, List box, Combo box, Button and write in the third column. 2

S. No.	Control used to	Control
1	Traveler's Name	
2	Source City/Destination City	
3	Trip Type (One Way Trip / Round Trip / Multi City or Stop Over)	
4	Booking Class (Economy/Premium Economy/Business)	