



ROLL NO.	
NAME	
CLASS & SECTION	

APEEJAY COMMON PRE-BOARD EXAMINATION, 2019-20

16

CLASS-XII

INFORMATICS PRACTICES – 265

Time Allowed : 3 hrs.

Maximum Marks : 70

General Instructions :

1. The question paper contains 7 questions, attempt all parts of a question together.
2. Q. 2 and Q.4 have to be answered with respect to Java Language.
3. Q.3, Q.5 and Q.6 have to be answered with respect to MySQL.
4. All questions are compulsory, however there is internal choice.

QUESTION:1

1. What happens during Domain Name Resolution? (1)
2. How is "Denial of service" attack, a threat to Network security? (1)
3. Expand ODF and FLOSS. (1)
4. Distinguish between ASCII and Unicode. Write any two points. (2)
5. Differentiate between TCP/IP and HTTP. (1)
6. ABC bank has many computers connected in a building. What type of network is formed? Also name any one hardware resource that can be shared by the computers connected in their network. (1)
7. Daniel has connected 10 computers of his resource room to establish a network. Help him in identifying the correct topology which has following characteristics : (1)
 - It's very easy to diagnose the fault in this topology.
 - Failure of central hub/switch leads to failure of the entire network.
8. Distinguish between firewall and cookies. (1)
9. Explain wireless technologies with an example. (1)

P.T.O.

QUESTION 4

1. What will be displayed in jTextField1 and jTextField2 ?

(2)

```
int x,y,z,t;
x=7;
y=10;
z=x+y*6;
t=x + y;
jTextField1.setText(""+z);
jTextField2.setText(""+t);
```

OR

Give the contents of the variables after the execution of the code.

```
double a = -4, b = 3 ;
double x = Math.pow( a, b ) ;
double num1 = 456.454 ;
num1 = Math.round(num1) ;
```

2. Study the following code

(1+1+2=4)

```
int f=1,i=2;
do{
f*=i;
}while(++i<5);
System.out.println(f);
```

- (a) How many times does the following loop execute?
(b) Also predict the output
(c) Convert the do..while loop using a for loop
3. (a) What will be displayed in jTextField1 after the following code is executed : (1)

```
int n = 120, x=65;
int p=90;
if(n!=210)
{
x=++n+p;
jTextField1.setText(""+x) ;
}
```

- (b) What is the generic name for operator in ++n? (1)
4. AVON Tools has computerized its billing. The following is the data entry screen in NetBeans IDE used by them :

- (a) When the user clicks Clear Button, all the values stored in the text boxes and option button should be cleared and set the category of the city as A. (2)
- (b) When the command button with caption “Calculate” is clicked, subtotal, tax (6.50% of subtotal), delivery and handling charges and Total Amount are computed and displayed. The criterion of calculation of Delivery and handling charges is as given below : (4)

Category of City	Charges
A	Rs. 2.000
B	Rs. 3.000
C	Rs. 3.500

- Subtotal is calculated by multiplying Quantity price. Tax is calculated as 6.50% of Sub Total.
 - Total is calculated as the sum of subtotal, tax, delivery and handling charges.
- (c) Write the code to display a message “Exiting” and close the application on the click of “EXIT” button. (1)

QUESTION 5

1. Write SQL query to create a table 'Player' with the following structure : (2)

FIELD	TYPE	CONSTRAINT
Playerid	Integer	Primary key
Name	Varchar(50)	
Height	Integer	Should be greater than 0
Weight	Integer	
Datebirth	Date	
Teamname	Varchar(50)	

2. (a) Differentiate between single row and aggregate functions. (2)
 (b) Explain the concept of equi-join through an example. (2)
3. Write the output of the following commands : (2)
- (a) SELECT CHAR(69) "CHARACTER" ;
 (b) SELECT 5>4 AND 7>4;
 (c) SELECT POWER(2,4)+6/3;
 (d) SELECT LENGTH("ICON")+25%4;
4. Consider the following tables TRANSPORTER and DRIVER and answer the question that follows : (2)

Table : TRANSPORTER

ORDERID	ITEM	TRANSPORTDATE	DESTINATION	DRIVERID
1120	TELEVISION	2019-03-19	MUMBAI	D103
1121	REFRIGERATOR	2019-04-12	UDAIPUR	D101
1122	TELEVISION	2019-05-06	MUMBAI	D101
1123	MICROWAVE	2019-05-07	KANPUR	D103
1124	FURNITURE	2019-06-13	KANPUR	D102

Table : DRIVER

DRIVERID	DRIVERNAME	DRIVERGRADE	PHONE
D101	Radhey Shyam	A	981234567
D102	Jagat Singh		981017807
D103	Timsy Yadav	B	
D104	Zoravar Singh	A	981107887

- (a) Can the column 'PHONE' be set as the primary key of the table DRIVER ? Give reason(s).
- (b) In the PHONE column of "DRIVER" table, each phone number is taking same number of bytes (being padded with spaces to specified length) irrespective of the number of characters actually stored in that column. Which data type has been used for PHONE column?
- (c) Write the command to display a count of items being transported to each city.
- (d) How many rows will be there in Cartesian product of the two tables?

QUESTION 6

1. Write SQL queries for a. to g. parts and write outputs for SQL queries h. to j. parts which are based on the tables given below : (10)

Table: TRAINS

TNO	TNAME	START	END
11096	Ahimsa Express	Pune Junction	Ahmedabad Junction
12015	Ajmer Shatabdi	New Delhi	Ajmer Junction
1651	Pune Hbj Special	Pune Junction	Habibganj
13005	Amritsar Mail	Howrah Junction	Amritsar Junction
12002	Bhopal Shatabdi	New Delhi	Habibganj
12417	Prayag Raj Express	Allahabad Junction	New Delhi
14673	Shaheed Express	Jaynagar	Amritsar Junction
12314	Sealdah Rajdhani	New Delhi	Sealdah
12498	Shane Punjab	Amritsar Junction	New Delhi
12451	Shram Shakti Express	Kanpur Central	New Delhi
12030	Swarna Shatabdi	Amritsar Junction	New Delhi

Table: PASSENGERS

PNR	TNO	PNAME	GENDER	AGE	TRAVELDATE
P001	13005	R N AGRAWAL	MALE	45	2018-12-25
P002	12015	P TIWARY	MALE	28	2018-11-10
P003	12015	S TIWARY	FEMALE	22	2018-11-10
P004	12030	S K SAXENA	MALE	42	2018-10-12
P005	12030	S SAXENA	FEMALE	35	2018-10-12
P006	12030	P SAXENA	FEMALE	12	2018-10-12
P007	13005	N S SINGH	MALE	52	2018-05-09
P008	12030	J K SHARMA	MALE	65	2018-05-09
P009	12030	R SHARMA	FEMALE	58	2018-05-09

- (a) To display details of all Trains which Start from New Delhi
- (b) To display the PNR, PNAME, GENDER and AGE of all Passengers whose AGE is below 50.
- (c) To display total number of MALE and FEMALE Passengers.
- (d) To display details of all Passengers travelling in Trains whose TNO is 12015
- (e) To add a record in the table passengers with some values.
- (f) Display the details of passengers who were not travelling beyond June 2018.
- (g) Display the passenger name and position where 'S' occurs in the name.
- (h) SELECT MAX(TRAVELDATE), MIN(TRAVELDATE) FROM PASSENGERS WHERE GENDER = 'FEMALE';
- (i) SELECT END, COUNT(*) FROM TRAINS GROUP BY END HAVING COUNT(*)>1;
- (j) SELECT TNAME, PNAME FROM TRAINS T, PASSENGERS P WHERE T.TNO = P.TNO AND AGE <=25;

QUESTION 7

- 1. Mention two points explaining the limitations of e-learning. (2)
- 2. What is the role of a server in Client-Server architecture? Mention one feature of an effective database server. (1)
- 3. Ritu works for a fast food company. She wants to create controls on a form for the following functionality. Choose appropriate controls from Text Field, textarea, Label, Radio Button, Check Box, List, Combo Box, Button. (2)

S.No.	Requirement	Control
1	To select citizenship	
2	To allow selection of Marital Status	
3	To allow selection of one or more food items	
4	To allow entering of Feedback in the form of a paragraph	