

CLASS XII – COMMON PRE-BOARD EXAMINATION

Sub : Informatics Practices (065) Time allowed : 3 hours Maximum Marks : 70

Instruction :

(i) All questions are compulsory

(ii) Programming Language : Java and MySQL

1. (a) Mrs Shasikala is working in an Global Organization. She wants to login in his office computer from her home. Suggest the protocol for the same. 1
 - (b) Which device is used for connecting multiple networks over different protocols? 1
 - (c) Identify the following topologies. 1
 - (1) A signal / data packet transmitting from one end to other end in linear way.
 - (2) Each node is connected to two and only two neighboring nodes in circular form.
 - (d) Write any two scripts included in Indian Languages on Unicode. 1
 - (e) Explain following terms. 2
 - (1) Apache Server (2) Linux
 - (f) List out any four advantages of Open Standards. 2
 - (g) Differentiate between Dedicated and Non-dedicated server. 2
-
- 2 (a) Which property of the radio button should be set to make the radio buttons mutually exclusive? 1
 - (b) What is the difference between <P> and
 tag? 1
 - (c) Write some features of XML. 1
 - (d) Which HTML tag is used to for producing a Radio Button in an HTML form? Write one example. 1
 - (e) How many times does the following loop execute? What is its type (Entry controlled or Exit controlled) ? 2

```
int x=2,y=20;
while( x <= y)
{
JOptionPane.showMessageDialog(null, "" + x);
}
```

- (f) Write a function in java that takes an integer number as parameter and returns its sum of digits. 2
- (g) Write the HTML code to provide the hyperlink to a website "www.kvsangathan.nic.in". 2
3. (a) How can we see the list of existing tables in current database? 1
- (b) While creating a table "STUDENT", Kavi forgot to set primary key for the table on ROLLNO key. Write the statement to set the column MobileNo as the primary key of the table. 2
- (c) A student of class XII has created a table "PARTICIPANTS". CITY is one of the columns in table. She wants to find out the names of participants who have not come from Mumbai, Delhi, Ahmedabad. 2
 SELECT NAME FROM PARTICIPANTS WHERE CITY HAS NOT Mumbai, Delhi, Ahmedabad;
 Find out the errors and rewrite the above query.
- (d) Predict the output of the query: 1
 SELECT ROUND(65.95,1) - TRUNCATE(65.95,1);
- (e) Write the difference between Char and Varchar data types. 1
- (f) Write the MySQL query to calculate the Cartesian Product of given two tables. 1
- (g) Consider the table HOTEL given below: 2

Table : HOTEL

Room_No	Cust_Name	Room_Type	Room_Rent
204	Rajesh	Single	700
308	Anuja	Double AC	1600
105	Vinamra	Single NAC	500
202	Soma	Single	700

Based on this information, find output of the following queries:

- (I) SELECT Room_Type, AVG(Room_Rent) FROM HOTEL GROUP BY Room_Type;
- (II) SELECT Room_no FROM HOTEL WHERE Cust_Name LIKE '%a%';

- 4 (a) Define Polymorphism concept in Object Oriented Programming. 1
- (b) Rewrite the following if else statement using conditional operator 1

```
int i=("I am a student of Kendriya Vidyalaya".length());
if(i>25)
    System.out.println("Above Average");
else
    System.out.println("Below Average");
```
- (c) Given a string Object namely *month* having value as "11" stored in it. What will be the result of following code? 1

```
JOptionPane.showMessageDialog(null,"" +(month.length()+Integer.parseInt(month)));
```
- (d) Rewrite the following code using switch: 2

```
char ch = Character.parseCharacter( charTF.getText() );
if ( ch == 'A' ) || (ch == '1')
    System.out.println( "One" );
else if( ch == 'B' ) (ch == '2')
    System.out.println( "Two" );
else
    System.out.println( "None" );
```
- (e) The following code has some error(s). Rewrite the correct code underlining all the correction made: 2

```
int K=2; Sum=0;
do
{
Sum=K;
K+=2;
}
while(K<=20);
jTextField1(Integer.toString(Sum));
```
- (f) What will be the value of P and Q after execution of the following code: 2

```
int P,Q=100;
for(P=10;P<=12;P++)
Q+=P;
JOptionPane.showMessageDialog(null, "P:" + P + "Q:" + Q + "");
```

- (g) Rajani is a programmer in GeSoft Ltd. She designed a GUI to display employees having salary in the given range.



Write the code for the following

- 1) Mention the name of all the components used to create above JFrame (1)
- 2) Write the java statements to execute the query to display the records in the JFrame, if the database name is Firm and table name is Employee. (4)
- 3) Display code for clear and exit buttons (1)

5. (a) What do you understand by primary key and candidate key? 2

(b) Write the output of the following MySQL statements : 2

- (i) SELECT MOD(ROUND(124.60),5);
- (ii) SELECT SUBSTR(TRIM(' I LOVE PROGRAMMING '),3,5);
- (iii) SELECT CONCAT("KENDRIYA ", "VIDYALAYA") "FULL NAME";
- (iv) SELECT WEEKDAY(CURDATE());

(c) Consider the table **STUDENT** given below, write MySQL Commands for (i) to (v) and output 6 for (vi) to (viii):

Name	Class	DOB	Sex	City	Marks
Nanda	X	6/6/95	M	Agra	551
Saurabh	XII	7/5/93	M	Mumbai	462
Sanal	XI	6/5/94	F	Delhi	400
Trisla	XII	8/8/95	F	Mumbai	450
Store	XII	8/10/95	M	Delhi	369
Marisla	XI	12/12/94	F	Dubai	250
Neha	X	8/12/95	F	Moscow	377
Nishant	X	12/6/95	M	Moscow	489

- (i) To display all the information of males whose city is NEITHER Delhi or Mumbai. (1)
- (ii) To display the details of all the students whose date of birth is after Nishant's Birth date 12/6/95. (1)
- (iii) To Display all information about class XII students rankwise (descending order). (1/2)
- (iv) List names of all students in agewise. (1/2)
- (v) To count the number of students in XII Class of Mumbai city. (1/2)
- (vi) SELECT DISTINCT (Sex) FROM STUDENT. (1/2)
- (vii) SELECT AVG(Marks), Class FROM STUDENT GROUP BY class. (1)
- (viii) SELECT COUNT(*)FROM STUDENT WHERE Class = 'XI' (1)

6. (a)

Column Name	EmpID	EmpName	EmpAdd	EmpPhone	EmpSal	DeptID
Key Type	<u>Primary</u>					Foreign
Null/Unique		Not Null		Unique		
Foreign Key Table Name						Department
Foreign Key Column						DeptID
Data type	Integer	Char	Varchar	Integer	Double	Integer
Length	6	20	30	10	9,2	2
Constraint					<20000	

2

Create table Employee as per the above given Table Instance Chart.

(b) In a database there are two tables Books and Issued as shown below.

2

Books			Issued		
Book_Id	Book_name	Quantity	Book_Id	Quantity-issued	
C001	Fast Cook	5	T001	4	
F001	The Tears	20	C001	5	
T001	C++	10	F001	2	
T002	VB	15			
F002	NetBeans	50			

- (i) Identify the foreign key column in the table Issued.
- (ii) How many rows and columns will be there in the Natural Join of these two tables?

(c) Study the following table TEACHER and SALARY and write the MySQL commands for the questions (i) and (ii) and give outputs for MySQL queries (iii) and (iv). 6

Table : **TEACHER**

SID	NAME	DEPT	SEX	EXPERIENCE
101	Siddhart h	Computer	M	12
104	Raghav	Physics	M	5
107	Naman	Chemistry	M	10
114	Nupur	Computer	F	3
109	Janvi	Physics	F	9
105	Rama	Accounts	M	10
117	James	Computer	F	3
111	Binoy	Accounts	F	12
130	Samuel	Computer	M	15

Table : **SALARY**

SID	BASIC	ALLOWANCE	DA
101	12000	1000	300
104	23000	2300	500
107	32000	4000	500
114	12000	5200	1000
109	42000	1700	200
105	18900	1690	300
130	21700	2600	300

- (i) Display NAME and DA of all staff who are in Accounts department and having more

- than 10 years of experience and DA is more than 300. (2)
- (ii) Display the NAME and SALARY of all staff whose salary is more than average salary.
(SALARY=BASIC +ALLOWANCE+ DA) (2)
- (iii) Select NAME, DA, BASIC from TEACHER, SALARY Where BASIC>20000 and
TEACHER.SID=SALARY.SID; (1)
- (iv) Select NAME, DEPT, SEX, BASIC, DA from TEACHER, SALARY Where DEPT LIKE '%o%'
and DA >=500 and TEACHER.SID=SALARY.SID; (1)

7. (a) Write any two social impact of e-business. 1
- (b) Define front – end of an information system. 2
- (c) Mrs. Ranjeeta is developing a software for the Company. She wishes to create controls on a form for the following functions. Choose appropriate controls 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	Enter Employee number	
2	Employee Name	
3	Select Department	
4	Select Manager Name	