

KENDRIYA VIDYALAYA SANGATHAN, CHENNAI REGION
CLASS XII – COMMON PRE-BOARD EXAMINATION 2015-16
INFORMATICS PRACTICES (065)

Time Allowed: 3 Hours

Maximum Marks: 70

Instructions:

- (i) **All** questions are compulsory.
- (ii) Programming Language : Java, SQL

1. (a) Mr. Mohan Kumar wants to prevent unauthorized access to/ from his company's local area network. Write the name of a system (software/hardware), which he should install to do the same. 1
- (b) ABC Company wants to connect their LAN using Ethernet cable to share related information but they are not able to do so due to loss of signal. Which device should you suggest to be installed for smooth communication? 1
 - a) UPS b). Modem c). Repeater
- (c) Define resource sharing. 1
- (d) What is Unicode? 1
- (e) Explain the two differences between shareware and Open Source Software 2
- (f) Differentiate between star topology and Ring topology . 2
- (g) Name two communication cables used in networking and explain any one. 2
2. (a) Shyam has taken a list control on his form to display the list of all items available in his shop. But he wants to allow the user to select multiple items from his list control. Which property of JList should he use to do the same? 1
- (b) Which method can be used to close the application. 1
- (c) Which HTML tag is used to break the current line in HTML? 1
- (d) Give any two characteristics of XML. 1
- (e) What will be the values of m and n after the following java code is executed: 2

```
int m = 10 , n = 20 ;  
if ( m != n )  
    m = n + 1 ;  
else  
    m += 2 ;
```

```
m++ ;  
n++ ;
```

- (f) Write any two differences between <HR> tag and <H1> tag in HTML? 2
- (g) Write java code that gets marks in two subjects from textfields m1TF and m2TF and displays the higher marks in a textfield named highTF. 2
3. (a) Which command is used in MySQL to cancel the changes in a database? 1
- (b) While creating the table **Employee**, Mrs. Kalpana forgot to include the field **empno**, now she wants to add the **empno** field with **integer** data type and **primary key** constraint into the **Employee** table? 2
- (c) Ranjana want to display total of sales amount in sales table according each type item, for this purpose she wrote the following query. 2
Table : Sales (sid, salAmt, item, dateofsale)
SELECT total(salAmt) FROM sales GROUP BY date;
But she is unable to get the correct output. His query has error kindly correct her query.
- (d) What is the difference between **WHERE** clause and **HAVING** clause in Select statement? 1
- (e) Write the MySQL query to calculate the Cartesian Product of given two tables. 1
- (f) A table "CUSTOMER" has 6 Attributes 16 Tuples. What is the cardinality and degree of the table? 1
- (g) Predicate the output of the following queries: 2
(i) SELECT ROUND(35.21), ROUND(65.95);
(ii) SELECT ROUND(35.21,1), ROUND(65.95,1);
4. (a) What is the difference between public and private access specifier in a java class? 1
- (b) Write java code to get the name of the user from jTextField1 and store in a String variable str. 1
- (c) What will be displayed in jTextField1 after executing the following statement: 1
jTextField1.setText("Hello".substring(2).length() + " ");

- (d) What will be displayed in jTextField1 and jTextField2 after the following code is executed: 2

```
int i = 5 ;
for ( int j = 1 ; j <= i ; j++ )
    if ( j % 2 == 0 )
        jTextField1.setText( j + " " ) ;
    else
        jTextField2.setText( j + " " ) ;
```

- (e) Rewrite the following code using for loop: 2

```
int i = 1 ;
while( i < 5 )
{
    System.out.println( "i = " + i ) ;
    i++ ;
}
```

- (f) Following code has some error(s). Rewrite the correct code underlining all the corrections made: 2

```
int a = jTextField1.getText( ) ;
int b = 20 ;
{    a = a + b ;
    b -= 5 ;
} while ( b >= 0 )
    jTextField1.setText( a ) ;
```

- (g) The following GUI form is created in Netbeans for a Book Store where customers are given discount as follows:

Book Type	Discount %
Magazine	2%
General	3%
CBSE	4%

An additional discount of 2% is given if the total amount exceeds 1999.(refer GUI diagram)

Now answer the following:

- i) Write java code for Calculate Total button (calcTotalBTN) which calculates total amount from priceTF and qtyTF and display the total value in totalTF. 1
- ii) Write java code for Calculate Discount % button (calcDiscPerBTN) which determines the discount percentage as per the given criteria and display the discount percentage in the discPerTF textfield. 3
- iii) Write java code for Calculate Net Amount button (calcNetAmtBTN) which calculates the net amount by reducing the discount amount from total and display the net amount in the netAmtTF textfield. 2

- 5. (a) Explain the purpose of DDL and DML commands used in SQL. Also give two examples of each. 2
- (b) What is the difference between drop and delete commands. 2
- (c) Consider the table TEACHER given below. Write commands in SQL for (1) to (4) and output for (5) to (8)

TEACHER

ID	Name	Department	Hiredate	Category	Gender	Salary
1	Tanya Nanda	SocialStudies	1994-03-17	TGT	F	25000
2	Saurabh Sharma	Art	1990-02-12	PRT	M	20000
3	Nandita Arora	English	1980-05-16	PGT	F	30000
4	James Jacob	English	1989-10-16	TGT	M	25000
5	Jaspreet Kaur	Hindi	1990-08-01	PRT	F	22000
6	Disha Sehgal	Math	1980-03-17	PRT	F	21000
7	Siddharth Kapoor	Science	1994-09-02	TGT	M	27000
8	Sonali Mukherjee	Math	1980-11-17	TGT	F	24500

- i. To display all information about teachers of PGT category. 1
- ii. To list the names of female teachers of Hindi department. 1
- iii. To list names, departments and date of hiring of all the teachers in ascending order of date of hiring. 1
- iv. To count the number of teachers in English department. 1
- v. SELECT MAX(Hiredate) FROM Teacher; ½
- vi. SELECT DISTINCT(category) FROM teacher; ½
- vii. SELECT COUNT(*) FROM TEACHER WHERE Category = "PGT" ½
- viii. SELECT AVG(Salary) FROM TEACHER group by Gender; ½

6. (a) Create table Customer as per following Table Instance Chart.

Column Name	Cust_ID	Cust_Name	Cust_Add	Pincode	Cust_Phone
Data Type	Integer	Varchar	Varchar	Integer	VARCHAR
Length	7	30	20	6	10
Constraint	Primary	Not Null			

2

(b) In a database there are two tables "Student" and "Stream" as below :

2

Table: Student

Sid	Sname	age	StrId
1	Roondy	10	1
2	Joseph	12	1
3	Trinchu	14	2
4	Prithlon	11	3
5	Ahol	10	2

Table: Stream

StrId	Name
1	Eng
2	Com
3	Sci
4	Hum

- (i) What is the cardinality and degree of both tables?
- (ii) Among both the tables which table has the foreign key and write the foreign key name.
- (c) Consider the following tables Product and Client. Write MySQL commands for the statement (i) to (iv) and give outputs for SQL queries (v) to (viii). 6

Table : **Book**

Book_Id	Book_Name	Author_Name	Publisher	Price	Type	Quantity
C0001	Fast Cook	Lata Kapoor	EPB	355	Cookery	5
F0001	The Tears	William Hopkins	First Pub	650	Fiction	20
T0001	My First C++	Brain & Brooke	EPB	350	Text	10
T0002	C++ Brain works	A.W. Rossaine	TDH	350	Text	15
F0002	Thunderbolts	Anna Roberts	First Pub	750	Fiction	50

Table : **Issued**

Book_Id	Quantity_Issued
T0001	4
C0001	5
F0001	2

- (i) To show Book id, Book name, Author name and price of books of First Pub Publisher
- (ii) To display the names and price of books in ascending order of their prices.
- (iii) To increase the price of all books of EPB publishers by 50.
- (iv) To display the Book_Id, Book_Name and quantity issued for all books which have been issued.
- (v) Give the output of the following
- Select Count(*) from Book;
 - Select Max(Price) from Book where Quantity >=15 ;
 - Select Book_Name, Author_Name from Book where Publisher='First Pub';
 - Select count(distinct Publisher) from Book where Price >=400;

7. (a) What is the database connectivity ? 1
- (b) Explain the process of e-learning. Name any two disadvantages of it. 2
- (c) Sunita is developing one application for servicing department. She want to create some controls on a form for the following functions. Choose appropriate controls from Text field, Text Area, Label, radio button, check box, list box, combo box, button, Option pane, dialog box, menu items. 2

S. No.	Control used to	Control
1.	Enter Customer name	
2.	Select item from list	
3.	Description of problem	
4.	Submit the data of form	