

CLASS-XI
INFORMATICS PRACTICES (065)

Time Allowed : 3 Hrs.

Maximum Marks : 70

General Instructions :

- (i) All the questions are compulsory.
 - (ii) The paper contains 7 questions.
 - (iii) Programming Language used: Java and RDBMS used: MySQL
 - (iv) 15 minutes time has been allotted to read this question paper. During this time, the student will only read the question paper, he/she will not write any answer on the answer book.
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- Q1. (a) Name the following hardware device: ($\frac{1}{2} \times 2 = 1$)
- (i) It is used for primary storage in computer to hold active information of data and instructions.
 - (ii) It is used to store instructions provided by the manufacturer which holds the instructions to check basic hardware interconnector and to load operating system from appropriate storage device.
- (b) A password should be strong enough so that nobody can crack it. Give any two points that must be kept in mind while deciding a password. (2)
- (c) Pair the following equivalent units : (1)
1PB, 1TB, 2^{30} KB, 2^{40} KB
- (d) When you buy a printer from the market, you will get a CD with preloaded program with it. What is this program called and why it is required ? (2)
- (e) Which one is not a Cyber crime ? (1)
- (i) Sending Obscene / offensive messages through email.
 - (ii) Theft of brand new sealed computer

- (iii) Hacking
- (iv) Creating and distributing spam mails
- (f) What is CAPTCHA? (1)
- (g) Write full form of the following: (2)
 - (i) USB
 - (ii) MICR

Q2. (a) What is IDE? Name the four parts/areas of Netbeans IDE. (2)

(b) Name the control which display the default character ‘•’ instead of typed character. (1)

(c) What will be the output of the following command? (1)

```
jTextField1.setText("Learning".concat("Java"));
```

(d) Which swing control is used to accept multiline text? (1)

(e) Write the if-else statement for the following: (2)

If the user enters the Aggregate marks in jTextField1 greater than or equal to 75, it displays a message “Congratulation! You get the SCHOLARSHIP” otherwise it displays a message “Work hard, try for scholarship in next exam” in Message box.

(f) The SelectionMode property of List box has three possible values- SINGLE, SINGLE_INTERVAL, MULTIPLE_INTERVAL. Which one implies that List box allows multiple selection of options using Ctrl key. (1)

(g) What will be the corresponding output of the following code segment if the input in jTextField1 is 30. (2)

```
int Num = Integer.parseInt(jTextField1.getText());
switch(Num)
{
    case 10: jTextField2.setText("Ten only"); break;
    case 20: jTextField2.setText("Twenty only");
    case 30: jTextField2.setText("Thirty only");
    case 40: jTextField2.setText("Forty only"); break;
    default: jTextField2.setText("Not enough money"); break;
}
```

- Q3 (a) After creating the “School” database, you want to use it. Write the command that you should give. (1)
- (b) What is NULL value? Is it equivalent to 0 (zero) value? (1)
- (c) Consider the following table GARMENT and answer the following questions: (1×2=2)

GCODE	DESCRIPTION	PRICE	FCODE	READYDATE
10023	FORMAL SHIRT	1150	F03	2008-12-19
10001	INFORMAL SHIRT	1250	F01	2008-01-12
10024	BABY TOP	750	F02	2008-06-06
10019	FROCK	750	F03	2008-06-06

- (i) Identify the Candidate keys.
- (ii) Identify the Primary key. Can you enter NULL or duplicate values in primary key ?
- (d) What is cardinality and degree of the table GARMENT. (1)
- (e) Write a SQL command to delete a column Remarks from table STUDENT. (1)
- (f) Somalika is confused between the following statements: (2)
- (i) `SELECT * FROM emp WHERE ename LIKE '%A';`
- (ii) `SELECT * FROM emp WHERE ename LIKE 'A%';`
- Explain the working of above statements.
- (g) Pair the following equivalent SQL statements (which give the same output). (1×2=2)
- (i) `SELECT * FROM club WHERE salary between 20000 and 30000;`
- (ii) `SELECT * FROM club WHERE salary IN (20000, 30000);`
- (iii) `SELECT * FROM club WHERE salary >= 20000 and salary <=30000;`
- (iv) `SELECT * FROM club WHERE salary = 20000 OR salary = 30000;`

Q4. (a) A company is selling various models of its washing machine brand Easy Wash at discounted prices on the New Year. The company plans to computerize its Billing system for which a programmer is required to make the following GUI interface to calculate the Discount Amount & Net Amount to be paid by the buyer as shown below :



Control	Name	Description
jTextField1	txtName	To store Buyers Name
jTextField2	txtContact	To store Buyers Contact No.
jTextField3	txtTotal	To display total amount
jTextField4	txtDiscount	To display discount amount
jTextField5	txtNet	To display net amount
jComboBox1	cmbModel	To choose a model
jCheckBox1	chkAuto	To choose an automatic machine
jButton1	btnCalDisc	To Calculate Discount
jButton2	btnCalNet	To calculate Net amount

The cost of each Model of Easy Wash and its discount percentage on the cost is as follows :

Model Name	Cost in Rs.	Discount
EW SX	16000	10%
EW DX	12000	12%
EW MX	22000	8%

An additional amount of Rs. 4000/- is charged if the customer wants to take the Fully Automatic machine of any model. Consider the above interface and write the Java code for the following :

- (i) The textfields for Discount Amount (txtDisc) and Net amount (txtNet) are uneditable and “Calculate Net Amount” button (btnCalNet) is disabled. (3)
 - (ii) When “Calculate Discount” button (btnCalDisc) is clicked, calculate and display the total amount and discount in the corresponding textfields (txtTot & txtDisc) as per the given criteria and enable the “Display Net Amount” button (btnCalNet). (4)
 - (iii) When “Calculate Net Amount” button (btnCalNet) is clicked, the Net amount should be displayed in textfield txtNet. (2)
- (b) How many times the following loop gets executed? (2)
- ```
int x = 5; y = 35;
while (x <= y)
{
 x += 8;
}
```
- (c) What will be the content of JTextArea1 after executing the following code? (2)
- ```
int num = 1;
do
{
    JTextArea1.append(Integer.toString(++ num) + “\n”);
    num = num + 2;
}while (num <= 10);
```
- (d) The code given below will give an error on execution if the value entered in jTextField2 is 0 (zero). Identify the type of error and modify the code to handle such an error. (2)

```

int a,b,c;
a = Integer.parseInt(jTextField1.getText());
b = Integer.parseInt(jTextField2.getText());
c = a/ b;

```

Q5. (a) Write SQL Statement to create a table Movie with the following structure: (2)

Column Name	Data Type	Length	Constraint
Movie_Id	Char	4	Primary Key
Movie_Title	Varchar	10	NOT NULL
Category	Varchar	10	NOT NULL
Total_sales	Integer		
Release_Date	date		
Stars_Received	Decimal	(3,1)	

(b) Write SQL commands to do the following: (1×2=2)

- (i) Change the width of the column Movie_Title to 15.
- (ii) Add a column Rating which can hold values 'UA' or 'U'.

(c) Consider the table Movie with the following data and answer the question that follows: (1×6=6)

Table: Movie

Movie_Id	Movie_Title	Category	Total_Sales	Release_date	Stars_Received
M001	Harry Potter	Thriller	30000000	2007-07-20	5
M002	100 Days	Suspense	NULL	NULL	NULL
M003	Phir Hera Pheri	Comedy	27500000	2006-10-06	3.5
M004	Partner	Comedy	12000000	2007-09-07	4

- (i) Display Movie_Id and "Directors Commission" as 2% of total sales.
- (ii) Display Movie_Id, Movie_Title and Category of only those movies which are not yet released(Release date is missing in the record).
- (iii) Display the details of Movies according to stars Received with movies receiving maximum stars at the top.

- (iv) Modify the stars received from 5 to 10 for the movie Harry Potter.
- (v) Insert a record with following specification:
 'M005', 'Ra.one', 'Action', 100000000, '2011-10-26', 5
- (vi) Delete all the movies in the Suspense category.

Q6. (a) Write SQL statement for the following: (2)

- (i) Extract the word “net” from the string “Internet Superhighway”.
- (ii) Display the position of “My” in a string “Enjoying MySQL”.

(b) Write the output of the following SQL statement: (½x4=2)

- (i) SELECT ROUND(7.3456,2);
- (ii) SELECT TRUNCATE(2.3456,2);
- (iii) SELECT CONCAT(CONCAT('Believe in', ' '), 'Hard Work');
- (iv) SELECT POWER (5,2);

(c) Consider the table Activity and write the output of the following queries : (1x6=6)

Table: Activity

ACode	ActivityName	Stadium	Participants	PrizeMoney	ScheduleDate
1001	Relay 100x4	Star Annex	16	10000	2009-06-04
1002	High jump	Star Annex	10	12000	2010-01-02
1003	Shot Put	Super Power	12	8000	2009-05-14
1005	Long Jump	Star Annex	12	9000	2009-09-24
1008	Discuss Throw	Super Power	10	15000	2009-10-16
1011	Cricket	Kotla	14	25000	2010-01-18
1012	Football	Dhyanchand	18	10000	2008-12-10
1014	Hockey	Kotla	16	20000	2010-01-08
1017	Lawn Tennis	Dhyanchand	4	17000	2010-01-30

- (i) SELECT LENGTH(Stadium) FROM Activity WHERE PrizeMoney between 12000 and 15000;
- (ii) SELECT INSTR(ActivityName,'I') FROM Activity WHERE ACode IN(1002,1011);

- (iii) `SELECT LCASE(Stadium) FROM Activity WHERE Participants = 12;`
- (iv) `SELECT LEFT(Stadium, 5) FROM Activity WHERE Participants < 12
AND PrizeMoney > 12000;`
- (v) `SELECT RIGHT(ActivityName, 4) FROM Activity WHERE Stadium LIKE
'%d';`
- (vi) `SELECT MONTH(ScheduleDate), DAY(ScheduleDate) FROM Activity
WHERE PrizeMoney >20000;`

- Q7. (a) Give two examples each of e-Governance and e-Business type applications. (2)
- (b) Kanav is creating a form to enter user's data for his project work. Help him to choose most appropriate controls from List box, Combo box, TextField, TextArea, RadioButton, Check box, Label and Command button for the following entries from user. (1/2x4=2)
- (i) A message in front of any control.
 - (ii) An input to choose country from a list of countries.
 - (iii) An input to select hobbies from a list of hobbies.
 - (iv) An input to accept the gender.
- (c) Distance-learning education conducted by many universities comes under which type of application- e-Management, e-Learning, e-Business? (1)