



Brilliant Public School

Seepat Road Bahatarai, Bilaspur (C.G.)

Final Term Examination, 2017-18

Class – XI

Subject – Informatics Practices

Time: 3:00 Hrs.

Date: 05.03.2018

M.M. 70

Monday

General Instructions:

1. This question paper consists of 10 questions.
2. All the questions are compulsory.
3. Answer the questions after carefully reading the text.

Q1- Answer the following questions :

- a) Explain the various functions of ALU? 1
- b) Differentiate between Compiler and Interpreter? 1
- c) What do you understand by Application Software? Write the name of any one application software? 1
- d) What is computer virus? What are its preventive measures? 1

Q2- Answer the following questions :

- a) What is e-Governance? How is e-Governance beneficial for citizens? 1
- b) What is e-Learning? Give two names of web sites that provides e-Learning? 1
- c) Define e-Business? 1

Q3- Answer the following questions :

- a) What do understand by Candidate Keys? 1
- b) What do you understand by Degree and Cardinality of a table? 1

Q4 Answer the following questions: 1 x 5 = 5

- a. What are the functions of an Operating System? Write any two functions.
- b. Differentiate between PDA and Workstations.
- c. Discuss the supercomputers developed in India.
- d. Write any four disadvantages of touch screen?
- e. What is a biometric sensor? Describe in brief.

Q5. Answer the following questions:

- a. While working in NetBeans, Rajeeta included a Listbox in the form. Now she wants the list of her friends' names to be displayed in it. Which property of Listbox control should she use to do this? 1
- b. What is the purpose of default clause in a switch statement? 1

c. How would you disable a button? Write code. 1

d. How many times does the following loop execute? What is its type (Entry-controlled or Exit-controlled)? 1

```
int x = 2, y = 20;
while ( x <= y ){
    System.out.println(x);
    x = x + 3;
}
```

e. What is Write Once Run Anywhere characteristic of Java? 1

f. Design a label control imgLabel in your frame and write proper coding/steps to display an image "c:\image\country.jpg" . 1

Q6. Answer the following questions:

a. What will be the *output* of the following expression if (i) age = 25 (ii) age = 85?
System.out.println(age > 65 ? 350 : 100); 1

b. Give java code to display the following pattern: 1

```
4
4 3
4 3 2
4 3 2 1
```

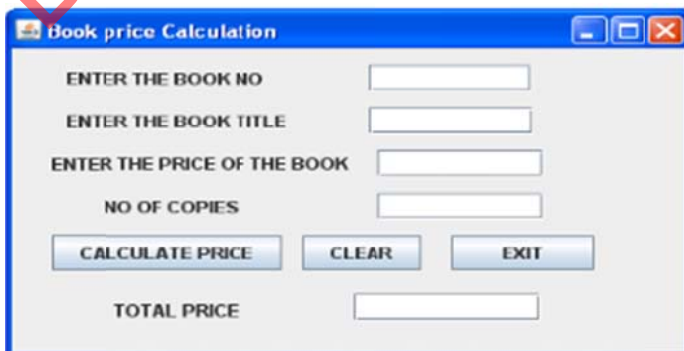
c. Rewrite the following program code using a *for* loop: 2

```
int i = 1, sum = 0;
while ( i < 10 ){
    sum += i;
    i += 2;
}
```

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

```
int i, j = 5;
i = = j + 5;
if ( i = j ){
    jTextField1.setText( i and j are unequal );
Else{
    System.out.print("i and j are equal");
}
```

e. Answer the following based on the interface shown below:



- i. Write the code for exit button. 1
- ii. If you are asked to write code for clear button for this application, what code would you write for it so that the text fields get cleared when it is clicked? 1
- iii. Write code for calculate price where TOTAL PRICE is displayed in the corresponding textField. 2

Q7. Answer the following questions:

- a. Write Java code to reverse a number entered. For eg : 786 will be 687 2
- b. Design a program in Java Netbeans to test, whether an entered no is EVEN or ODD . 2
- c. Design a program to calculate factorial of a given no. 2

- Q8. (a) Which MySQL command is used to make permanent changes on the databases? 1
- (b) Mr. Sunil created a table “BOOK” in MySQL. He forget to set the PRIMARY KEY for the table. Which command should he used to set it for the field “BID”. 1
- (c) Uma, an employee of ABC enterprises has created a table "CANDIDATES". EXP is one of the columns of the table which stores no of years of experience as integer. She wants to find out the names of candidates who are fresher. 1

MySQL> SELECT NAME FROM CANDIDATEDS WHERE EXP IS fresher;

Find out the errors and rewrite the above query.

- (d) Can a table have multiple PRIMARY KEY? Explain. 1

(e) EMP Table 2

EmpName	Sal
Saravanan	2800
Neethu	3200
Lekshmi	3500
Ganesh	2700

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

- a) SELECT COUNT(*) FROM EMP WHERE Sal >= 3000;
- b) SELECT EmpName, Sal FROM EMP WHERE Sal IS NULL;

- (f) What do you mean by Table constraints? What is role of the default constraint? Explain with an example. 1
- (g) A table ACCOUNTS in a database has 14 columns and 4 records. What is its degree and cardinality , if 2 rows are deleted from the table? 1

- Q.9 (a) What will be the contents of the text1 and text2 after the following code is executed. 1
- ```
String text1, text2;
text1 = " BRILLIANT PUBLIC SCHOOL";
text2.setText(text1.length()+" ");
text1=text1.concat(" BILASPUR");
```

- (b) Write the following if else statement using Switch statement 2
- ```

if(reg=='e' || reg=='E')
RegCode="bpsMIS";
else if(reg=='w' || reg=='W')
RegCode="bpsBSP";
else if(reg=='s' || reg=='S')
RegCode="bpsVVHR";
else if(reg=='n' || reg=='N')
Regcode="bpsKORB";

```
- (c) Locate the errors in the following code fragment and re-write the code with underlined corrections : 2
- ```

integer num=20,i=1;
long sum=0;
do(i<num)
{
sum+=i;
i+1=i;
}
jTextField1.setText(""+sum);

```
- (d) Write a java statement to make the jTextField1 non-editable. 1
- (e) What will be displayed in jTextField1 and jTextField2 after the execution of the following code? 2
- ```

int Last, First=3,Second=5;
Last=First+ Second++;
jTextField1.setText(Integer.toString(Last));
jTextField2.setText(Integer.toString(Second));

```
- (f) What will the content of jTextField1 after executing the following statements 1
- ```

String S="vidyalaya";
jTextField1.setText(s.substring(0,1).toUpperCase()+s.substring(1));

```
- (g) The students of “ Kendriya Vidyalaya” work for different extracurricular activities like ‘ Swachh Bharat ABhiyan ’, ‘Swachh Vidyalaya Abhiyan’ and ‘Road Safety Abhiyan’. The Programmer at the school has developed a GUI application as shown below:



| Object Type | Object Name                        |
|-------------|------------------------------------|
| Text Field  | TF1,TF2,TF2,TF4,TF5                |
| Check Boxes | jCheckbox1, jCheckbox2, jCheckbox3 |
| Text Area   | TA1                                |
| Button      | jButton1, jButton2, jButton3       |

•A student can participate in more than activities.

• Each student gets points for each activity-

Swachh Bharat Abhiyan- 20 points

Swachh Vidyalaya Ahbiyan- 10 points

Road Safety - 10 points

Help the programmer to write code for the following:

- i. Write code for clear button and stop button. 2
- ii. When 'Calculate Total Score' button is clicked, the points for each activity (that is selected) should be displayed in the text field in from of that activity's checkbox and the Total score should be displayed in the appropriate Text Area. 3

- Q10. (a) What do you understand by candidate key and foreign key? 2
- (b) Consider the table STUDENT and SQL statements 2  
STUDENT

| Admno | RollNo | Class | Student name | Fathers Name |
|-------|--------|-------|--------------|--------------|
| 4001  | 1      | XII   | Ram          | Raj          |
| 4002  | 1      | XI    | Ravi         | Rao          |
| 4003  | 2      | XI    | Rakesh       | Ramana       |
| 4004  | 2      | XII   | Rajini       | Raghav       |

Identify Candidate keys and Primary Keys for the above table

- (c) Consider the table STUDENT given below, write MySQL Commands for (i) to (v) and output for (vi) to (viii): ( queries from (i) to (iv)= 1 Mark Each & from (v) to (viii)= ½ Mark Each) 6

TABLE:STUDENT

| Name    | Class | DOB      | Gender | 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.
- (ii) To display the details of all the students whose date of birth is after Nishant's Birth date 12/6/95.
- (iii) To Display all information about class XII students rankwise (descending order).
- (iv) List names of all students in agewise.
- (v) SELECT Name ,Class, City FROM STUDENT WHERE Class ='XII' AND City='Mumbai';
- (vi) SELECT DISTINCT (Gender) FROM STUDENT.
- (vii) SELECT AVG(Marks), Class FROM STUDENT GROUP BY class.
- (viii) SELECT COUNT(\*)FROM STUDENT WHERE Class = 'XI' .

Q11. (a) In a database there are two tables Books and Issued as shown below.

2

Books

| Book_Id | Book_name | Quantity |
|---------|-----------|----------|
| C001    | Fast Cook | 5        |
| F001    | The Tears | 20       |
| T001    | C++       | 10       |
| T002    | VB        | 15       |
| F002    | NetBeans  | 50       |

Issued

| Book_Id | Quantity-issued |
|---------|-----------------|
| T001    | 4               |
| C001    | 5               |
| F001    | 2               |
|         |                 |
|         |                 |

- (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?

=== 0 0 0 ===