

Sample Paper – 2014
Class – XII
Subject – Informatics Practices

General Instructions:

- (i) All questions are compulsory
- (ii) Answer the questions after carefully reading the text.
- (iii) This question paper is divided into three sections.
- (iv) Section – A consists 10 marks.
- (v) Section – B consists 25 marks,
- (vi) Section – C consists 35 marks
- (vii) This question paper consists of 6 pages

SECTION – A (10 Marks)

QA Answer the following questions:

- A.1 Mrs. Daya is a computer teacher in a school. She is delivering the lecture about the concept software in the class. She is explaining that a software which is absolutely free of cost and whose source code is available. Name the software. Name the software about which she is explaining. (1)
- A.2 Muskan is a student of XII class. She wants to send a message to her friend which is living in another country. But she is confused which communication media she will use. Help her for the same. (1)
- A.3 Paras has written two addresses as 162.123.4.5 and AB.YU.2F.K6.12.67. He is not able to find out the difference between these addresses. Help him for the same. (1)
- A.4 Write any two differences between Star Topology and Bus Topology. (2)
- A.5 Mr. Anil wants to make a dedicate link between computers in a network. He has purchased HUB and SWITCH both. Suggest him which device will serve for the same. (1)

- A.6 Explain the Following: (i) MySQL (ii) PHP (2)
 A.7 Expand the following terms: (i) OSI (ii) W3C (2)

SECTION - B (25 Marks)

QB Answer the following questions:

B.1 Mr. Wilson is doing a course of programming language. He has cleared the concepts of different operators. Now he is studying about conditional statements. He wants to use the relational and logical operators with conditional statements but he is confused which conditional statement use between IF and Switch. Help him for the same. (1)

B.2 How many times does the following do...while loop get executed?

```
int y = 5;
do
{
    y += 2;
    System.out.println(" " + y );
} while( y < 20 );
```

(2)

B.2 What will be the contents of jTextArea1 after executing the following code: (1)

```
jTextArea1.setText("RED\n SCHOOL\t JHAJJAR");
```

(1)

B.3 Rewrite the following code fragment using switch : (2)

```
if(ch == 'e')
System.out.println( "Esha" );
if(ch == 'w')
    System.out.println( "Wilson" );
if(ch == 'n')
    System.out.println( "Nitin" );
if(ch == 's')
    System.out.println( "Sachin" );
else
```

- JOptionPane.showMessageDialog(null, "unknown");
- B.4 What will be the output of the following code: (1)
- ```
StringBuffer city = new StringBuffer("Madras");
StringBuffer string = new StringBuffer();
string.append(new String(city));
string.insert(0,"Central");
string.out.println(string);
```
- B.5 Given a package named EDU. Student, how would you import a class named Test contained in this package? Write one line statement. (1)
- B.6 We would like to make a member of a class visible in all subclasses regardless of what package they are in. Which one of the following keywords would achieve this? (1)
- (a)private (b)protected (c) final (d) public (e) None of these
- B.7 What will be the output of following : (2)
- ```
class MAIN () {
    public MAIN () {
        calculate ();
        System.out.println("Consructor " );
    }
    void calculate () {
        show();
        System.out.println("Calculating" );
    }
    void show () {
        System.out.println("I am displaying " );
    }
}

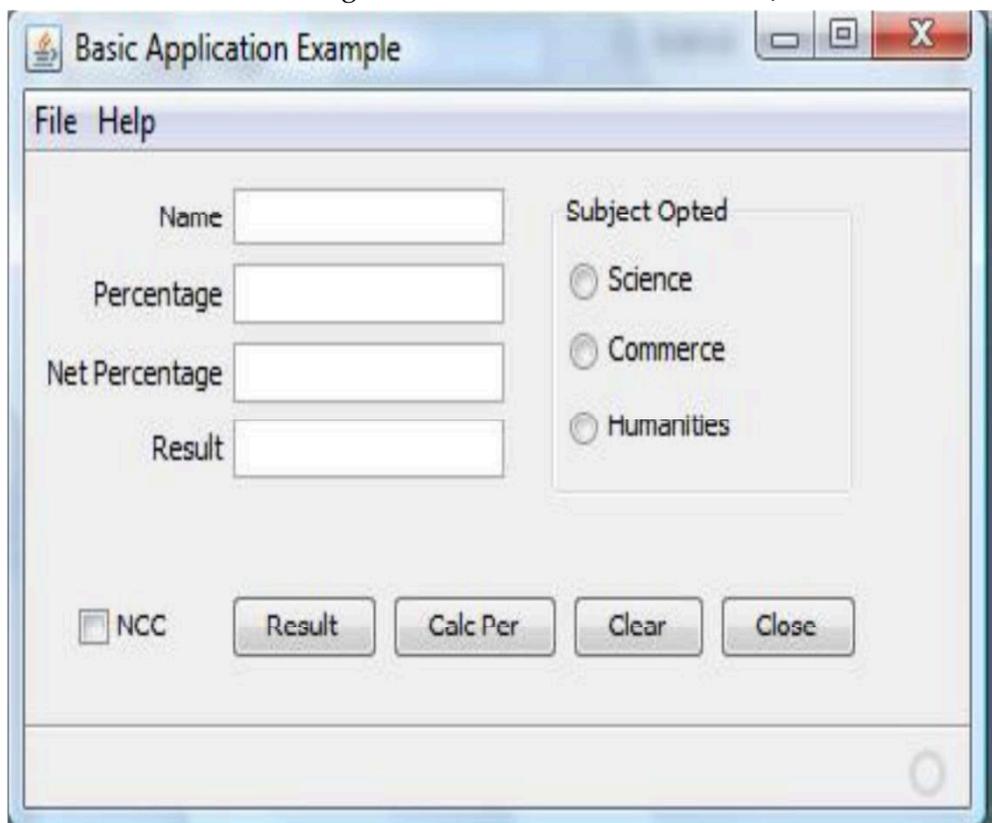
public static void main ( Strirng args [] )
{
```

```

MAIN one = new MAIN ();
}
}

```

- B.8 Write any two differences between method overloading and method overriding. (2)
- B.9 What classes are used for database connectivity? (1)
- B.10 Name any two web browsers. (1)
- B.11 Differentiate between HTML and XML. (2)
- B.12 Write a function in java that takes two numbers as parameters. It then returns that num whose square is greater than the square of other number. In case of equality either number is returned. (2)
- B.13 ABC School uses the following interface built in java to check the eligibility of a student for a particular stream from science, commerce and humanities. The user first enters the total percentage and selects the desired stream by selecting the appropriate option button. An additional 5% is marks is given to students of NCC. Write Java Code for the following



- B.13.1 On Action event of the button 'Calc Per' Net percentage of the student is calculated and displayed in the appropriate text filed. Net percentage is same as that of the actual percentage if the student doesn't opts for NCC otherwise 5% is added to actual percentage. (2)
- B.13.2 On Action event of the button 'Result', the application checks the eligibility of the students. And display result in the appropriate text field. Minimum percentage for science is 70, 60 for commerce and 40 for humanities. (2)
- B.13.3 On the click event of the close button the application gets closed. (1)

SECTIOB - C (35 Marks)

QC Answer the following questions:

C.1 Write SQL statement to create the table Furniture given below as per specification.

Column Name	Code	Name	Price	City
Data type	Integer	Varchar	Integer	Varchar
Size	6	30		30
Constraint	Primary key			Default Jhajjar

(2)

C.2 In a database there are two tables:

Table ITEM:

ICode	IName	Price
101	Keyboard	500
202	Computer	20000
303	Mouse	450

404 CPU 7000

Table **BRAND:**

ICode	Brand
101	Microsoft
202	HP
303	Microsoft
404	Intel

- C.2.1 To Display ICode, IName and Corresponding Brand of those Items, whose price is between 7000 and 20000 (both values inclusive) (1)
- C.2.2 To Display ICode, Price and BName of the item which has IName as Keyboard". (1)
- C.2.3 To increase the price of all items by 15%. (1)
- C.3 Rama is not able to change a value in a column to NULL. What constraint did she specify when she created the table. (1)
- C.4 The Doc_Name Column of a table Hospital is given below:

Doc_Name
Ragav
Wilson
Vicky
Deepak
Paras

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

- C.4.1 SELECT Doc_Name FROM HOSPITAL WHERE Doc_Name like "%v" ; (1)
- C.4.2 SELECT Doc_Name FROM HOSPITAL WHERE Doc_Name like "%e%" ; (1)

C.5 Pooja, a student of class XI, created a table "BOOK". Price is a column of this table. To find the details of books whose prices have not been entered she wrote the following query: (1)

SELECT * FROM BOOK WHERE PRICE = NULL;

Help Pooja to run the query by removing the errors from the query and overwriting it.

C.6 Wilson is not clear about the difference between the following two statements:

C.6.1 SELECT (12 - 4) * 10; (1)

C.6.2 SELECT (12 - 4) * 10 FROM empl ; (1)

Help him understand the difference between these two statements.

C.7 Write the resulting output of the following:

C.7.1 SELECT SUBSTR(TRIM(' RED SCHOOL JHAJJAR ',12)); (1)

C.7.2 SELECT ROUND(276.878,2); (1)

C.7.3 SELECT TRUNCATE(887.996,1); (1)

C.7.4 SELECT SQRT(144) + 200; (1)

C.8 Consider the following tables ACTIVITY and COACH. Write SQL commands for the following statements.

TABLE : ACTIVITY

Acode	ActivityName	Stadium	ParticipantsNum	PriceMoney	ScheduleDate
1001	Relay 100 x 4	Star Annex	16	10000	23-Jan-04
1002	High Jump	Star Annex	10	12000	12-Dec-03
1003	Shot Put	Super Power	12	8000	14-Feb-04
1005	Long jump	Star Annex	12	9000	01-Jan-04

1008	Discuss Throw	Super Power	10	15000	19-Mar-04
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TABLE : COACH

Pcode	Name	Acode
1	Ahmad Hussain	1001
2	Ravinder	1008
3	Janila	1001
4	Naaz	1003

Give the output of the following SQL queries:

- C.8.1 To display the names of all activities with their Acodes in descending order. (1)
- C.8.2 To display sum of PriceMoney for the Activities played in each of the Stadium separately. (1)
- C.8.3 To display the coach's names and Acodes in ascending order of Acode from the table COACH. (1)
- C.8.4 To display the content of all activities for which ScheduleDate is earlier than 01-01-2004 in ascending order of ParticipantsNum. (1)
- C.8.5 SELECT COUNT(DISTINCT ParticipantNum) FROM ACTIVITY; (½)
- C.8.6 SELECT MAX(ScheduleDate), MIN(ScheduleDate) FROM ACTIVITY; (½)
- C.8.7 SELECT Name, ActivityName FROM ACTIVITY A, COACH C WHERE
A.Acode = C.Acode AND A.ParticipantNum = 10; (½)
- C.8.8 SELECT DISTINCT ParticipantNum FROM ACTIVITY; (½)
- C.9 What is the difference between Drop Table command and Delete command? (1)
- C.10 What are constraints? How Primary Key is differ from Unique? (2)
- C.11 Difference between WHERE and HAVING clause. (1)
- C.12 What is SQL? What are the different categories of SQL commands? (2)

C.13 In a database there are two tables 'CARDEN' and 'CUSTOMER' shown below-

TABLE : CARDEN

Vcode	VehicleName	Make	Color	Capacity	Charges
501	A-Star	Suzuki	RED	3	14
503	Indigo	Tata	SILVER	3	12
502	Innova	Toyota	WHITE	7	15
509	SX4	Suzuki	SILVER	4	14
510	C Class	Mercedes	RED	4	35

TABLE : CUSTOMER

Ccode	CName	Vcode
1001	Hemant Sahu	501
1002	Raj Lal	509
1003	Feroza Shah	503
1004	Ketan Dhal	502

- C.13.1 Name the columns which can be made 'Foreign Key' in both the tables. (1)
- C.13.2 To display all details of vehicle "Innova". (1)
- C.14 Mrs. Renu has created a Table "Teachers" in MySQL. She has forgotten to apply the primary key on the field "TID". Which command she will use for fulfilling her requirement. (1)
- C.15 What Social impact does e-Governance have on society? (1)
- C.16 Write two important features of e-Business. Give two most commonly used e-Business sites. (2)
- C.17 Mr. John is creating a Data Entry Form for new admission in RED School. Help him to choose most appropriate controls from the List Box, Combo Box, TextField, TextArea,

Radio Button, Check Box, Label and Command Button for the following entries from candidate. (2)

C.17.1	To enter the name of the student	
C.17.2	Choose more than one subjects which a candidate studied in last class	
C.17.3	An input for entering remarks.	
C.17.4	An input for accepting Gender.	

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