

INTERNATIONAL INDIAN SCHOOL, DAMMAM

First Term Examination - 2015
Informatics Practices - Class XII

Time: 3 Hrs

Marks: 70

SET A

1. (a) Name the government organization that contributes to the growth of FOSS in India. (1)
 - (b) In a school campus various buildings A, B, and C want to interconnect their computer networks. Which devices would you suggest to be installed for providing amplifying signals and internet accessibility? (1)
 - (c) Akash has typed the following text in the address bar:
`http://www.cbse-international.com/new.htm`.
Help him to write various parts of it (1)
 - (d) What is OpenOffice? (1)
 - (e) Identify the following (2)
 - (i) It is a device which provides filtering and segmenting over a network.
 - (ii) It is a type of network which has maximum error rates.
 - (iii) Setting up unauthorized parallel telephone lines
 - (iv) It is the address of a resource on the WWW.
 - (f) Define WLL, 3G (2)
 - (g) What do you mean by CDMA and Cookies? (2)
2. (a) An employee_Id consisting of 4 digits is stored in a string variable strEmpId. Now Mr. Jai wants to store this Id in integer variable IntEmpId. Write a Java statement to do this. (1)
 - (b) What will be the values of ABC and ABC1 after execution of the following code: (1)

```
int ABC,ABC1=0;
for(ABC=101;ABC>=100;ABC - -)
{
ABC1= ABC+2;
++ABC1;
}
```
 - (c) Name the swing component which provides a pop -up list? (1)
 - (d) Name and define abstract class. (1)
 - (e) What will be the contents of jTextField1 and jTextField2 after executing the following code: (2)

```
String txt = "First Term Examination";
jTextField1.setText( txt.substring(9,13).toLowerCase( ));
double Num= Math.round(5.625*100)/100.0 ;
jTextField2.setText ( "" +Num);
```
 - (f) The following code has some error(s). Rewrite the correct code underlining all the correction made. (2)

```

int marks , temp;
marks= Integer.parseInt(jTextField1.getText ());
Temp= Integer.parseInt(jTextField2.getText ());
if (marks < 80 ) and temp>=40)
{
    System.out.println("Not OK");
}
else
{
    System.out.println("OK");
}

```

- (g) Write Java code that takes a number from the user in NumTf1 and displays the frequency of digit 4 in it , in NumTf2 (For example If the number entered is 1454 , it should answers as 2) (2)
- (h) Define Polymorphism and method overloading. (2)
- (i) How many times will the following loop execute ? (1)
- ```

int a = 10 , sum = 0;
while(++a < 15)
{
 sum = sum + a ;
 System.out.println(a++);
}

```
- (j) James is writing a code in java Netbeans , in which he is using a variable ctr but he is not able to differentiate between ctr = 5 and ctr == 5. Help him for doing this. (2)
3. (a) Akash had previously created a table named 'Item' in a data base 'Store'. Write the MySQL command to remove all the contents of the relation without its structure. (1)
- (b) Give example of single row and multi row function. (1)
- (c) Name the clause which is used to exclude group results (1)
- (d) Write the command in MySql to increase Percentage ( Column name : Per ) by 5 of all the students who have achieved Grade ( Column name : GRADE ) as 'A' . The table's name is STUDENT. (1)
- (e) What will be the output of the following queries on the basis of Employee table: (2)

| EmpId | EName | Salary |
|-------|-------|--------|
| A001  | Bob   | 4600   |
| A002  | John  | NULL   |
| A003  | Tom   | 5000   |
| A004  | Sam   | 0      |

- (i) Select avg(Salary) "Avg Sal" , min(Salary) "Min Sal" from Employee;
- (ii) Select Salary+100 from Employee where EmpId='A002' OR EmpId='A004';

- (f) A table named 'GAMES' has the following contents: (2)

| GCode | GameName     | Number_of_Players | PrizeMoney |
|-------|--------------|-------------------|------------|
| 101   | Carom Board  | 2                 | 5000       |
| 102   | Badminton    | 2                 | 12000      |
| 103   | Table Tennis | 4                 | 8000       |

Following query does not produce the correct result , write the correct query for it

```
SELECT GCode , GName
FROM Games GCode desc
Where PrizeMoney >= 5000 and <= 8000 ;
```

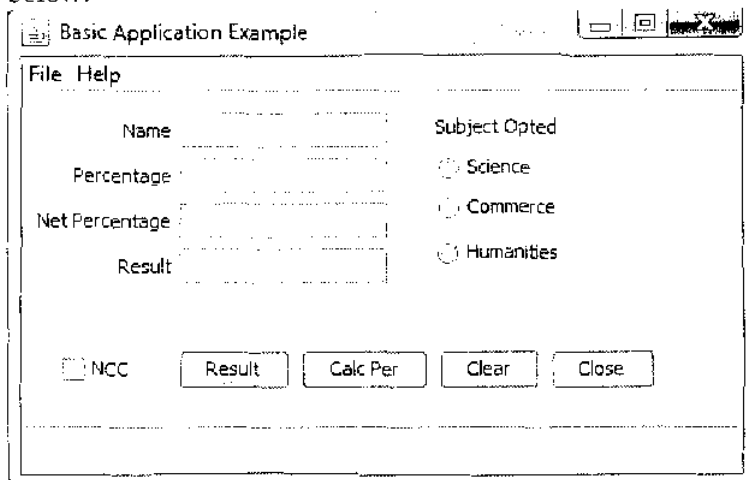
- (g) What is the difference between Having and WHERE clauses? Explain with the help of an example. (2)
- (h) Observe the given statements (1)
- (i) SELECT \* FROM Student WHERE Marks > 200 and Marks <= 400;
  - (ii) SELECT \* FROM Student WHERE Marks !=200 || Marks !=400;
  - (iii) SELECT \* FROM Student WHERE Marks NOT IN( 200 , 400);
  - (iv) SELECT \* FROM Student WHERE Marks <= 400 && Marks >200;
- Make pairs of the equivalent SQL statements given above ( which give the same output)
4. (a) Define the term extends . (1)
- (b) Given a String object named 'str' having value as "25000" stored in it. What will be result of the following? (1)
- ```
JOptionPane.showMessageDialog(null, ""+str.length()+
Integer.parseInt(str));
```
- (c) What will be displayed in jTextField1 and jTextField2 after the following code is executed: (1)
- ```
int num = 22 , num1 = 23 ;
jTextField1.setText(num + num1 + " ");
jTextField2.setText(" " + num + num1);
```
- (d) Write the output that will be generated by the code given below : (2)
- ```
int i ;
i=2; ;
int r ;
r = 8;
while( i++<=15)
{
if( i% 2 != 0)
System.out.println(r*i);
i = i+2;
}
System.out.print(i) ;
```

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

```
int u,v;
u =2 ,v =4;
while (u<=10)
{
jTextArea1.append(" "+u++);
    u ++;
    v+=2;
}
JOptionPane.showMessageDialog(null,"Complete");
```

- (f) Write a java code to declare integer variables loop_count , petrol_count. (2)
Assign the half of sum of variables loop_count and petrol_cost to the variable sum. Use a statement to print the value of sum .

- (g) Consider the following screen shot and answer the questions given below:



Write the java code for the following

- (3)
- i). On Action event of the button 'Calc Per' , user is required to enter actual percentage(txtAcPer) and calculate net percentage(txtNetPer) of the student. Net Percentage is calculated as

$NetPer = AcPer + 5$ (If student opts for NCC)
Otherwise $NetPer = AcPer$

- ii) On Action event of the button 'Result' , the application checks the eligibility of the students and displays result as "Eligible for Science" OR "Eligible for Commerce" OR "Eligible for Humanities" in txtRes. (2)

Minimum percentage for

Science (RdSc)	is 75
Commerce (RdCom)	is 65
Humanities (RdHum)	is 45

iii) To exit the application after displaying a pop up message "Thank you". (1)

5. (a) Observe the table 'Member' given below: (2)

Table : Member

Member_id	Member_name	Address	Age	Fees
M001	Sumit	New Delhi	20	1000
M002	Nisha	Gurgaon	19	1500
M003	Niharika	New Delhi	21	2100
M004	Sachin	Faridabad	18	1500

i. What is the degree and cardinality of the above given table?

ii. If a new Field contact_no has been added and two more members have joined then how these changes will affect the degree and cardinality of the above given table.

(b) Write the output of the following SQL queries: (2)

- i. SELECT INSTR('Welcome Hello','el');
- ii. SELECT LENGTH(CONCAT('INTER',NULL,'NET'));
- iii. SELECT ROUND(446.275,-2);
- iv. SELECT DAYOFYEAR('2015-03-10');

(c) Table "Friends" is shown below. Write commands in SQL for (i) to (iv) and output for (v) to (vi). (6)

Table : Friends

S_No	Name	Age	City	Country	Email_id
1	Alice	14	Washington	USA	alice@gmail.com
2	Charles	12	Copenhagen	Denmark	charles@yahoo.com
3	Angel	16	Chicago	USA	angel@gmail.com
4	Jasmine	15	Sydney	Australia	jasmine@yahoo.com
5	Raj	14	New Delhi	India	NULL
6	Jette	13	Nykobing	Denmark	abc@yahoo.com
7	Alexander	14	Mebourne	Australia	NULL

i. To display list of all indian friends whose age is more than 12 but less than 16 .

ii. To change the city to Mumbai of friend with S_no as 5.

iii. To count how many friends have not email id on yahoo.

iv. To list country and city of those friends who have an email id.

v. Select country ,age from friends where age>=14 && name like '%e_';

vi. Select instr(city,'a') from friends where country = 'USA';

6. (a) Write one similarity and one difference between CHAR and VARCHAR data types. (2)

(b) In a Bank's database, there is a table 'Customer_info' as shown below:

Cust_Name	Acc_No	Cust_Add	Cust_City	Cust_Phone
Ram Krishnan	1001001	Vasundhara Enclave	New Delhi	8710557614
Kavita Murthy	1001002	Punjabi Bagh	New Delhi	7122525233
Raj Sinha	1001003		Allahabad	9872136574
Sohan Kumar	1001004	Krishnanagar	Kanpur	9921305453

Answer the following questions

- (i) Suggest the primary key of the table (state reason) (1)
- (ii) Write the sql queries for the following
 - a) To display the number of customers from the same city. (1)
 - b) To display the name of columns along with their data types (1)
- (iii) How will you differentiate between following , Give output (1)

Select count(Cust_Add) from Customer_info;
And Select count(*) from Customer_info;

- (iv) Write the output of following statement (2)
 - a) Select concat(Cust_Name , ".", Cust_City) from Customer_info
where Cust_phone not like "%4";
 - b) Select Length(Cust_name) , Cust_City from Customer_info
Where Acc_No = 1001002
- (v) How will you add a new column Balance in the above given table. (1)