ARMY SCHOOL

R.K. Puram, Secunderabad

ANNUAL EXAMINATION – 2011

INFORMATICS PRACTICES

CLASS XI

Time : 3 hour **Max. Marks : 70**

SECTION – A

1 Answer the following questions : **(1 x 5 = 5 marks)**

(a) What are the different types of digital computers based on their performance ?

(b) Write the full forms of the following terms : (i) OMR (ii) LCD

(c) Define the terms : (i) Kilobyte (ii) Sectors

(d) Name some port types ?

(e) What benefits does an e-business offer to the customer ?

2 Answer the following questions : **(2 x 5 = 10 marks)**

(a) What are the differences between an interpreter and a complier ?

(b) What are various categories of software ?

(c) What is a Threat ? What are the common threats to computer security

(d) Write 5 positive and 5 negative societal impacts of E - Governance

(e) Define the terms : (i) E - Learning (ii) E - Business

SECTION – B

3 Answer the following questions : **(1 x 7 = 7 marks)**

(a) What are literals in Java ? How many types of literals are allowed in Java ?

(b) What is meant by an exit-controlled loop ? Which java loops are exit-controlled?

(c) What is Type Casting ? Explain with an example.

(d) What will be the result of a = 15 / 3, if a is (i) float (ii) int ?

(e) What will be the value of expression j = - - k + 3 * k - - . if k is 20 initially ?

(f) What output will the following code fragment produce ? Explain.

```
int n = 20 ;
System.out.println( ++ n + " , " + n + " , " + n – – ) ;
```

(g) How many times the following loop is executed ? Explain.

```
int p = 5 , q = 50 ;
while ( p < = q ) {
  p = q / p ;
}
```

4 Answer the following questions : (2 x 6 = 12 marks)

(a) List out all the Operators in Java ? Explain briefly.

(b) What will be the values of x and y after execution of the following code fragments?

```
int x , y = 0 ;
for ( x =1 ; x < = 5 ; x + + )
  y = x + + ;
  - - y ;
```

(c) Rewrite the following fragment using for loop :

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

(d) Rewrite the following fragment using switch :

```
if ( d = = 1 )
    day = “Monday” ;
if ( d = = 3 )
    day = ”Wednesday” ;
if ( d = = 5 )
    day = “Friday” ;
else
   day = “Sunday” ;
```

(e) Write a method in Java that takes cost price and selling price of goods as parameters and return the profit or loss made by the shopkeeper to be displayed.

(f) Write the Java GUI program code to print febonacci series upto the given number. (*Draw the GUI*)

5 Case Study : A company insured its drivers in the following cases: **(1x 6 = 6 marks)**

- If the driver is married
- If the driver is unmarried, male and above 30 years of age.
- If the driver is unmarried, female and above 25 years of age.

In all other cases the driver is not insured. Nandita creates a GUI application for this company to check whether the driver is insured or not. (*You can assume any suitable names for various controls on the form*)

(a) What should be done so that only one of the radio buttons out of male and female and one from married and unmarried could be selected at a time? 1

(b) Write the code for Clear button to clear the all text fields and radio buttons. 1

(c) Write the code for Exit button the application should be closed. 1

(d) Write the code for Check button to check whether the driver is insured or not based on the above condition. And display the result in the given text field. Also see that the age of a driver should not be less than 18 and if so show a message that "Under Age". 3

SECTION – C

6 Answer the following questions : **(1 x 4 = 4 marks)**

(a) What are the keywords that :

(i) Eliminates the redundant data from a query result ?

(ii) Ensures that all values in a column are different ?

(b) Sheela needs to remove all the rows from the table SALES , to release the storage space. But she does not want to remove the table structure. Which statement should she use ?

(c) When a PRIMARY KEY constraint is included in a table, what other constraints does this imply ?

(d) What are the commands to enlist the names of all databases and tables created by us.

7 Answer the following questions : (2 x 7 = 14 marks)

(a) Explain the three levels of data abstraction in a database systems with neat labeled diagram ?

(b) Differentiate between DDL and DML commands ?

(c) What are views ? How are they useful ?

(d) What is the output of the queries :

(i) select lower (mid (" SECUNDERABAD " , 6)) ;

(ii) select round (truncate (13.467 , 2) , 1) ;

(iii) select year (curdate ( )) ;

(iv) select pow (length ("ARMY") , month (curdate ( ))) ;

(e) (i) Write a query to display Ename and Sal of those employees whose do not have there salary in the range of 2500 to 4000 from table Empl ?

(ii) Write a query to display Ename and Sal of employees whose salary greater than or equal to 2200 from table Empl ?

(f) What is the importance of primary key in a table ? Explain with a suitable example.

(g) Write a SQL statement to display Today, the date is < current date >

8 Answer the following questions : (2 x 6 = 12 marks)

(a) Answer the following

(i) Consider the table HOSPITAL given below. Write commands in SQL for the following :

Table :: HOSPITAL

No	Name	Age	Department	Dateofadm	Charges	Sex
1	Sandeep	65	Surgery	1998-02-23	300	M
2	Ravina	24	Orthopedic	1998-01-20	200	F
3	Karan	45	Orthopedic	1998-02-19	200	M
4	Tarun	12	Surgery	1998-01-01	300	M
5	Zubin	36	ENT	1998-01-12	250	M
6	Ketaki	16	ENT	1998-02-24	300	F
7	Ankita	29	Cardiology	1998-02-20	800	F
8	Zareen	45	Gynecology	1998-02-22	300	F
9	Kush	19	Cardiology	1998-01-13	800	M
10	Shailya	31	Nuclear Medicine	1998-02-19	400	F

a) To show all information about patients of Cardiology department 1

b) To list the names of female patients who are in Orthopedic department 1

c) To display Patient's name, charges, Age for only male patients. 1

d) To count the number of patients with Age > 30 1

(ii) Create table Student as per following Instance Chart

Column Name	StuID	StuName	StuAddress	StuPhone	StuSatp	CouID
Key Type	Primary					Foreign
Nulls/Unique		NOT NULL				
Fk Table						Course
Fk Column						CouID
Datatype	NUMBER	VARCHAR	VARCHAR	VARCHAR	NUMBER	NUMBER
Length	6	20	30	10	9,2	2

2

(b) Name of the Table :: STUDENT

Field	Type	Null	Key	Default
No	int(4)	NO	PRI	NULL
Name	varchar(10)	YES	UNI	NULL
Class	varchar(5)	NO		XI

Write the commands for the following :

(i) To Create a database SCHOOL 1

(ii) To Create a table by name student with above description. 2

(iii) To add a column section of type varchar and size 2. 1

(iv) To rename the column section to division

(v) To change the size of the column Name to varchar 20 1

(vi) To Delete the column division.

(vii) To change the name of the table from STUDENT to CANDIDATE 1

(viii) To Remove the table.
