INDIAN SCHOOL SOHAR
FINAL EXAMINATION (2017-2018)
INFORMATICS PRACTICES

## Class: XI <br> Date: 06-03-18 <br> Instructions: <br> a. All the questions are compulsory. <br> b. Answer the questions after carefully reading the text.

Marks: 70
Time: 3 hours

1. Answer the following questions:
a. What is an Operating system? Name any two types of Operating System. 2
b. Write short notes on Volatile and Non Volatile Memory.
c. What is an application software? Name the various categories of application software.
d. Define the terms: i) Cookies ii) Firewall
e. What is fragmentation? How does it affect computer's performance?
2. 

a. What is the significance of break statement in switch?
b. Write a command for reading values of all selected element in a list box named "City".
c. Name the method that returns the index of a selected item in a Combo box.
d. What is meant by a variable's scope? Explain using suitable example.
e. Write the corresponding java expressions for the following:
i) $\mathrm{S}=\frac{1}{2} \mathrm{mv}^{2}$
ii) $x+e^{2 x}$
f. Define: Runtime and Logical errors. Give an example of each.
g. Define Foreign key.
h. Which of these is not a DDL command: Alter,Lock,Select,Rename
i. Differentiate between IN and BETWEEN clauses in SELECT statement.Give example
j. Name the function used
i) to return the weekday for date
ii) to extract the date part of a datetime expression
k. Differentiate between TRIM and RTRIM.

1. A numeric data field AMOUNT stored in table ORDER contains the value as 30309.98 . Write a command in SQL to round off amount:
i) Upto 1 decimal place ii) to a whole number
2. 

a. Write the output of the following code:
int $\mathrm{j}=1, \mathrm{i}=2$;
while(++i<5) \{
j * $=\mathrm{i} ;\}$

System.out.print(j);
System.out.println(i);
b. Find the errors from the following code segment and rewrite the corrected code underlining the corrections made:
int[ ] ind=itemlist.getSelectedindices;
int i ;
for $(\mathrm{i}=0, \mathrm{i}<$ ind.length ; $\mathrm{i}++)\{$
if(i=2)
Result.setText(" $3{ }^{\text {rd }}$ item selected"); \}
c. Rewrite the following code using 'if' statement:
float $\mathrm{x}=9, \mathrm{y}=5$;
int $\mathrm{z}=(\mathrm{int})(\mathrm{x} / \mathrm{y})$;
switch (z) \{
case 1: $x=x+2$;
case 2: $\mathrm{x}=\mathrm{x}+3$; break;
default : $\mathrm{x}=\mathrm{x}+1$; \}
System.out.println("value of $x: "+x)$;
d. Convert the following code segment into an equivalent 'do ... while' loop:
int $\mathrm{x}, \mathrm{c}$;
for ( $\mathrm{x}=10, \mathrm{c}=20 ; \mathrm{c}>=10 ; \mathrm{c}=\mathrm{c}-2$ )
X++;
System.out.print(" $x="+x+" c="+c$ );
e. Write the java code to print the sum of the following series: $\frac{1}{2}+\frac{1}{5}+\frac{1}{10}+\frac{1}{17}+\cdots$
f. Write the java code that displays the product of the digits of a number on a message box (e.g. if the number is 123 then it should print the result of $1 * 2 * 3$ i.e. 6 )
4. Answer the following questions on the basis of JFrame given below:

i) Write the commands to disable the text fields RateTF, AmountTF.
ii) When Clear button is clicked : To clear the contents of text fields(Customer name, Quantity, Rate,

Amount),clear the check box and set pizza type regular as the default option.
iii)When "Calculate Amount" is clicked :

To calculate the total amount and display the rate and total amount depending on the type of pizza selected by the customer

| Pizza Type | Rate |
| :--- | :--- |
| Regular | 90 |
| Pan | 100 |

An additional amount of Rs 20 is charged for extra topping.
5.
a. Write the SQL commands for the following on the basis of information given below:

LAB: Table structure

| Column name | Data Type | Constraint |
| :---: | :---: | :---: |
| Ino | Integer(2) |  |
| Itemname | Varchar(15) |  |
| Manufacturer | Varchar(10) |  |
| Costperitem | Integer(6) | Not null |
| Qty | Integer(3) |  |
| Dateofpurchase | Date |  |

LAB: Table

| Ino | Itemname | Manufacturer | Costperitem | Qty | Dateofpurchase |
| :---: | :--- | :---: | :---: | :---: | :---: |
| 1 | Computer | HP | 70000 | 9 | $21 / 05 / 2012$ |
| 2 | Printer | Canon | 15000 | 3 | $21 / 02 / 2015$ |
| 3 | Scanner | Canon | 18000 |  | $29 / 08 / 2015$ |
| 4 | Hub | Circutor | 8000 | 1 |  |
| 5 | UPS | Toshiba | 4000 | 5 | $21 / 05 / 2012$ |

i. Create a table lab based on the structure given above.
ii. Insert a new row with details: 6, Plotter, 3000.
iii. Add a primary key constraint to Itemno.
iv. Display the cost and purchasing date of items whose price is in the range of 8000 to 15000 in ascending order of quantity.
v. Add a new column - Warranty of Integer datatype with size 2.
vi. List the details of items whose manufacturer name contains "A" as the second character and ' N ' as the last character.
vii. Decrease the price of computers and printers by $5 \%$.
viii. Rename the column itemname to Particulars.
ix. List the various manufacturers available in descending order of Manufacturer.
x. Remove not null constraint from cost.
xi. Change the manufacturer of computer to Dell and quantity to 5 .
xii. Delete the records of items purchased before 2014.
xiii. List the name of all items in lower case joined with the last 3 characters of manufacturer.
xiv. Create a report listing the item name, manufacturer and total cost (total cost $=\operatorname{costperitem}$ *qty) for all items whose quantity is known.
b. Write the output of the following Queries:
i. Select $\operatorname{Instr}(" B u s i n e s s "$, 's') + Month(Now());
ii. Select Concat(Char(71,79,'79.5',68.2),mid("HOLIDAY",5));
iii. Select Truncate $(9873.261,-2)+\operatorname{Round}(7.26,2)$.
c. Remove the errors (if any) from the following queries and rewrite the correct ones.
i. Select Power(2,4)+Mod(5\%2); 1
ii. Select Ucase(Concat(Mid("learning",3)),Left("learning",2));
6.
a. Define e-business.
b. Why do you think e-learning courses have high dropout rate?
c. List any two limitations of e-learning.
d. Name any two e-governance sites.
e. Mention any two issues which are still to be worked out for e-governance to meet all its objectives. 1

