KENDRIYA VIDYALAYA PALAMPUR
3RD Pre-Board Examination
CLASS XII - INFORMATICS PRACTICES SESSION 2018-2019
Time allowed : 3 Hours Maximum Marks : 70

Instructions :
(i) All questions are compulsory.
(ii) Answer the questions after carefully reading the text.

1	(a)		Which transmission medium should be used to transfer data across two continents at very high speed?	2
	(b)		Briefly explain URL with a suitable example.	2
	(c)		Arrange the following communication channels in ascending order of their data transmission rates. OPTICAL FIBER, ETHERNET CABLE, TELEPHONE CABLE, COAXIAL CABLE , SATELLITE .	1
	(d)		Which of the following is not a characteristic of Open Source Software: (i) These are proprietary software (ii) Can be downloaded freely (iii) Source code is available for modification	1
	(e)	(i)	Which of the following software(s) is/are open source: LINUX, MS WINDOWS 10, ADOBE PHOTOSHOP, MYSQL , PYTHON	1
		(ii)	How can you increase the signal of a networks if it is going down ?	1
	(f)		Write any two differences between Hub and Switch.	2
2	(a)		How can you insert an image in a web page with height 300px and width 350px? The name of the image is school.jpg	1
	(b)		When do you use Check Box and Radio Button? Establish the relation between the use/application of Radio Button and Combo Box.	2

	(c)		What will be the output of the following code fragment ?
			int num=123,m=0,sum=0;
			do
			{
			m = num % 10 ;
			sum = sum +m;
			num = num / 10 ;
			} while(num>0);
			System.out.println(“Value of SUM is : ” +sum);
				1

	(d)		Create a HTML page with the following specifications . 1. Title of the page is : “I am a KVIAN” 2. The background color of the page will be: “BLUE”. And Font face of the whole web page will be: “Bedrock ”. 3. Pages should have one hyperlink to “SwachhBharat.html” with text written as “Swachh Bharat Abhiyan” 4. A paragraph with the text “Simple Living High Thinking” should be displayed in the center of the page.	2
	(e)		Write the use of toString() method with an example.	1

	(f)		Find the error(s) if the following codes .
			
			\\ This is a comment
			int m=10;
			integer n=0;
			for(; m+n <19;++n)
			System.out.show(“Hello\n”);
			int p=10;
				2

	(g)		Rewrite the following code segment using switch case statement
			
			int sal ;
			sal= Integer.parseInt(jTFSalary.getText());
			if (sal ==10000)
			jTFOutput.setText(“GROUP D”);
			else if(sal ==20000 || sal ==30000)
			jTFOutput.setText(“GROUP C”);
			else if (sal==40000)
			jTFOutput.setText(“GROUP B”);
			else
			jTFOutput.setText(“WRONG INPUT”);
				2

3	(a)		What are the basic rules while writing XML?	1
	(b)		In a query what is the use of “_ _m” and “%y”?	2
	(c)	(i)	Differentiate ALTER and UPDATE SQL commands	1
		(ii)	Differentiate GROUP BY and ORDER BY SQL clauses.	1
	(d)	(i)	Differentiate COMMIT and ROLLBACK SQL commands	1
		(ii)	Differentiate DROP and DELETE SQL commands.	1

<table>
<tr><td></td><td>(e)</td><td></td><td>Write the use of these constraints:
NOT NULL , UNIQUE , CHECK , DEFAULT</td><td>2</td></tr>
<tr><td></td><td>(f)</td><td></td><td>Given the table ‘MEDALS’ with the following columns :
<table><tr><td>MCODE</td><td>MTYPE</td><td>TOTAL</td></tr><tr><td>G101</td><td>GOLD</td><td>15</td></tr><tr><td>S101</td><td>SILVER</td><td>24</td></tr><tr><td>B101</td><td>BRONZE</td><td>30</td></tr></table>
Write the output of the following statements :
(i) SELECT MAX(TOTAL) FROM MEDALS;
(ii) Select COUNT(*) + 2 FROM MEDALS;</td><td>2</td></tr>
<tr><td>4</td><td>(a)</td><td></td><td>Identify the error(s) in the following code :

int x;
x = Integer.parseInteger(jTFInput.getText());
switch(x)
{
case 1 :
n1 =10 ;
n2 =20 ;
break;

case 2 :
n3 =30 ;
break;

case 1 :
n1 =40 ;
Break;

DEFAULT :
n1=100;

}</td><td>2</td></tr>
<tr><td></td><td>(b)</td><td></td><td>What values will be displayed in JOptionPane when the following codes are executed inside a JAVA program ?

int a=10, b =20;

a = a + b;
b = a - b;</td><td>1</td></tr>
</table>

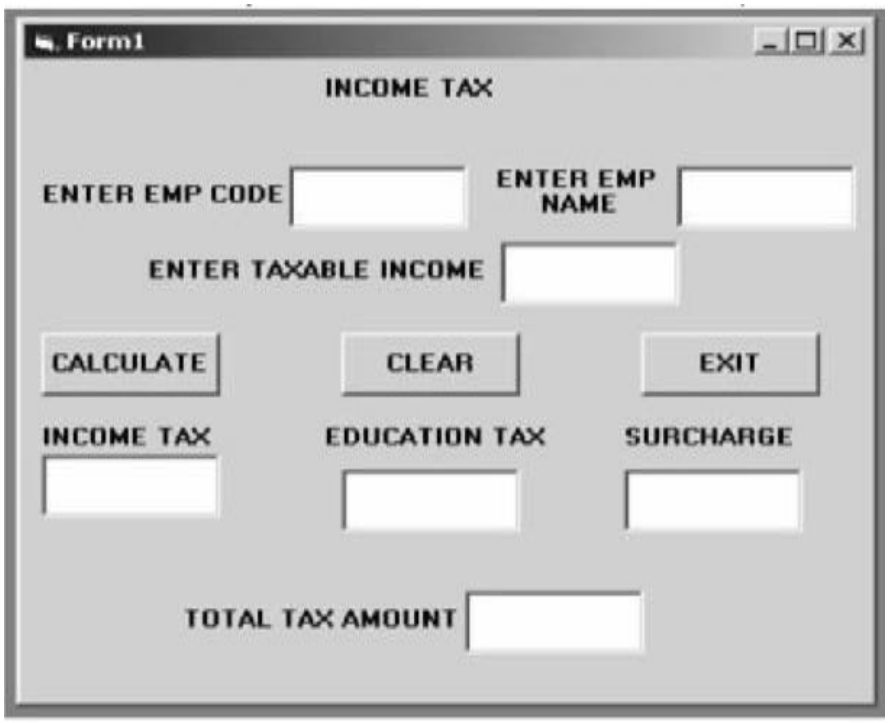
			a = a - b; JOptionPane.showMessageDialog(null,a); JOptionPane.showMessageDialog(null,b);	

	(c)		Write the code given below using 'for' loop
			
			int var=2;
			while(var<=10)
			{
			if (var%2==2)
			{
			System.out.println("I am in");
			}
			else
			{
			System.out.println("I am out");
			}
			var=var+1;
			}
			System.out.println("In and Out Game ");
				1

	(d)		Write the value that will be stored in variable a after execution of the following codes inside the JAVA program if :
			(i) initial value of a is 10.
			(ii) initial value of a is 100.
			
			int b = 50;
			if (a > b)
			a=a+5;
			a=a+2;
			System.out.println(a);
				1

	(e)		What will be the output of the following code fragment:
			
			int i=1,x=0;
			while (i < 12)
			{
			if (i % 2 != 0)
			x = x + i +1;
			System.out.print(x +3);
			i ++;
			}
				2

	(f)		Read the following case study and answer the questions that follow: A company has developed the following interface to enter and display data related to Income tax of employees. Based on this interface answer the following questions.	



(i) When calculate command button is clicked income tax, educational tax , surcharge and total tax (sum of income tax, education tax ,surcharge) is displayed in their respective text fields based on the following criterion : — 4

Taxable income	Income Tax	Education tax	Surcharge
upto 100000	NIL	NIL	NIL
100001 to 150000	10% of amount exceeding Rs. 100000	3% of Income tax	NIL
150001 to 250000	5000 + 20% of amount exceeding Rs. 150000	3% of Income tax	NIL
250001 and above	25000 + 20% of amount exceeding Rs. 250000	3% of Income tax	2% of Income tax

(ii) Write the code to clear all Text Fields and disable all Buttons. — 1

(iii) Write the code for the EXIT button to stop running the application. — 1

5 Consider the following table ‘PAYMENT’. Write SQL commands for the statements (i) to (iv) and write output for SQL queries (v) and (vi).

Table : PAYMENT

PAYMENT_ID	CUSTOMER_ID	AMOUNT	PAYMENT_DATE
P101A	C5001	9000	2018-01-08
P350C	C5420	15000	2018-01-31
P150B	C6550	16000	2018-02-05
P175C	C4000	9000	2018-02-16
P200B	C5200	12000	2018-03-16

		(i)	To display the PAYMENT_ID and AMOUNT increased by 500 of all the payments. (amount should only be displayed as increased; there should be no increase in the data in the table)	1
		(ii)	To display the details of all the payments made during the period 2018-01-31 to 2018-03-16 (inclusive of both the dates).	1
		(ii)	To display CUSTOMER_ID, AMOUNT of those Payment where the last letter of the Payment ID (PAYMENT_ID) is 'C'.	1
		(iv)	Write SQl command to add one more column in the PAYMENT table with the following specification : Name of the column : CUSTOMER_NAME Datatype of the column : VARCHAR Size = 30 Constraint : NOT NULL	1
		(v)	SELECT * FROM PAYMENT WHERE PAYMENT_ID LIKE "_C%" AND AMOUNT > 10000 ;	1
		(vi)	SELECT COUNT(DISTINCT AMOUNT) FROM PAYMENT;	1
6	(a)		Write SQL statement to create a table **'SHOP'** with the following structure :	2

Field	Type	Constraint	Default
ID	VARCHAR(5)	PRIMARY KEY	
ARTICLE	VARCHAR(20)	UNIQUE ,NOT NULL	
DEALER	VARCHAR(20)	UNIQUE	
PRICE	INT	Price should be >100	

PUBLISHER	VARCHAR(20)		“GEETA PRESS”	

(b) **Table : SALESMAN** 1

Salesman_id	Name	City	Commission
5001	Ranveer	Gurugram	0.15
5002	Ruchi	Karnal	0.13
5005	Aman	Ambala	0.11
5006	Seema	Panchkula	0.14
5003	Abhey	Ambala	0.12
5007	Arsi	Panchkula	0.13

Table : CUSTOMER

Customer_id	Cust_name	City	Grade	Salesman_id
3002	Ashish	Delhi	100	5001
3005	Ruhi	Karnal	200	5002
3001	Rattan	Panchkula	150	5005
3004	Amay	Patna	300	5006
3007	Srijan	Gurugram	250	5001
3009	Seema	Ambala	100	5003
3008	Ritik	Chandigarh	300	5002
3003	Ayan	Raipur	250	5007

Identify the Foreign Key in the above tables [**SALESMAN ,CUSTOMER**]

(c) With reference to the above given tables (in Q6 b), write commands in SQL for (i) to (iii).

(i) Write a query to find those customers with their name and those salesmen with their name and city who lives in the same city. 2

<table>
<tr><td></td><td></td><td>(ii)</td><td>Write a SQL statement to find the names of all customers along with the salesmen who works for them.</td><td>2</td></tr>
<tr><td></td><td></td><td>(iii)</td><td>Write a SQL statement to find the names of all customers along with the salesmen where grade is more than 200</td><td>2</td></tr>
<tr><td></td><td>(d)</td><td></td><td>Which MYSQL command is used to display the structure of table ?</td><td>1</td></tr>
<tr><td></td><td>(e)</td><td></td><td>What is the usage of Foreign Key in in a table ?</td><td>2</td></tr>
<tr><td></td><td>(f)</td><td></td><td>Write the output of the following MYSQL statements
(i) SELECT SUBSTR(”MALYALAM”,3,3);
(ii)SELECT DAY(“2018-16-03”) ;
(iii)SELECT INSTR(“GURUGRAM REGION”,”ON”);
(iv)SELECT ROUND(135.375,2);</td><td>2</td></tr>
<tr><td>7</td><td>(a)</td><td></td><td>How has society benefited from e-Governance? Explain briefly.</td><td>2</td></tr>
<tr><td></td><td>(b)</td><td></td><td>How e-Learning is being benefited to the student ?</td><td>1</td></tr>
<tr><td></td><td>(c)</td><td></td><td>Select the appropriate JAVA SWING control for the following functions
<table>
<tr><td>Sr No.</td><td>Function to Perform</td></tr>
<tr><td>1</td><td>To accept password from the user</td></tr>
<tr><td>2</td><td>To accept the domicile state of the user</td></tr>
<tr><td>3</td><td>To accept Address of the user</td></tr>
<tr><td>4</td><td>To let the user choose one QUALIFICATION out of the categories : GRADUATE/POST-GRADUATE/DOCTORATE</td></tr>
</table></td><td>2</td></tr>
</table>