## VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 DEPARTMENT OF COMPUTER SCIENCE

Course Code: 10CT41
Date:
16.02.2021 Major: Comp. Sci.

2 Hours Year: II
CIA:
I

Duration:
Semester: IV
Max.Marks: 50
Course Title:
RELATIONAL DATABASE MANAGEMENT SYSTEM

## SECTION - A (Remembering)

Answer ALL the Questions:
( $10 \times 1$ X 10 Marks)
1 A relational database consists of a collection of CO1
A. Tables
B. Fields
C. Records
D. Keys

2 A in a table represents a relationship among a set of values.
A. Column
B. Key
C. Row
D. Entry

3 The term $\qquad$ is used to refer to a row CO1
A. Attribute
B. Tuple
C. Field
D. Instance

4 For each attribute of a relation, there is a set of permitted values, called the $\qquad$ of that attribute. CO1
A. Domain
B. Relation
C. Set
D. Schema

5 Which one of the following is a procedural language? CO1
A. Domain relational B. Tuple relational C. Relational algebra D. Query language

6 Ranking of queries is done by which of the following? CO2
A. Group by
B. Order by
C. Having
D. Both Group by and Order by

7 Which of the following is the oldest database model? CO1
A. Relational
B. Deductive
C. Physical
D. Network

8 A collection of data designed to be used by different people is called a/an CO 2
A. Organization
B. Database
C. Relationship
D. Schema

9 Which of the following terms does refer to the correctness and completeness of the data in a database?
CO2
A. Data security
B. Data constraint
C. Data independence
D. Data integrity

10 In a granularity hierarchy the highest level represents the
A. Entire database
B. Area
C. File
D. Record
$\mathrm{CO1}$

SECTION - B (Remembering)
Answer any FIVE Questions:
11 Define data. CO1
12 Define Record. CO1
13 Define Row \& Column CO1
14 Write about RDBMS CO1
15 Define FIELD CO1
16 What is a TABLE? CO1
17 Define ACID properties
CO2

## SECTION - C (Understanding)

Answer any THREE Questions:
(3 X 6= 18 Marks)
18 Difference between Primary and Foreign Key
CO1
19 Discuss about the advantages \& disadvantages of DBMS CO1
20 Explain about the types of data model. CO1
21 Explain about Application of database CO1
22 Discuss about Alternate, Candidate and Composite key. CO1

> SECTION - D (Applying)

Answer any ONE Question:
(1X 12= 12 Marks)
23 Difference between DBMS \& RDBMS CO1
24 Explain about the Normalization? $\quad$ CO2

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 <br> DEPARTMENT OF COMPUTER SCIENCE 



| Course Code: | 10CT42 | Programme: | B.Sc | CIA: | I |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Date: | 19.02 .2021 | Major: | Comp. Sci. | Semester: | IV |
| Duration: | 2 Hours | Year: | II | Max.Marks: | 50 |
| Course Title: |  |  | DOT NET PROGRAMMING |  |  |

## SECTION - A (Remembering)

Answer ALL the Questions: (10 X 1 = 10 Marks)
1 .A GUI:A. uses buttons, menus, and icons.B. should be easy for a user to manipulate.C. stands for Graphic Use Interaction.D. Both a and b.CO1A. Solution Explorer. B. Tool Box.C. Start Menu.D. Designer Window3 Which is not a common property of the control class?CO1
A. Show.
B. BackColor.
C. Font.
D. ForeColor.
4 The Button control can be activated $\qquad$ .
A. programmatically through the click event.
B. by clicking only button with the mouse.
C. double clilcking the object
D. through click event and button.
5 Which is a numeric data type?
CO1
A. Floating point.
B. Integer.
C. Float and Integer.
D. Boolean.
6 What is the value of the index for the first element in a VB.NET array?
CO2
A. 0 .
B. 1 .
C. 2 .
D. 3 .
7 The solution explorer will not display $\qquad$ .
A. Form Properties
B. Reference Folder
C. Form File
D. Assemble File
8 How do user terminate code execution using VB.NET method?
CO 2
A. Exit.
B. Close.
C. Close Sub.
D. Exit Sub.
9 Controls are called $\qquad$ .
A. Code.
B. Part of the menus.
C. Rules.
D. Objects.
10 Which menu item is not typically found in the File Menu?
CO 2
A. Close.
B. Copy.
C. Exit.
D. Print.

## SECTION - B (Remembering)

Answer any FIVE Questions:
(5 X 2 = 10 Marks)
11 Define dot net?
CO1
12 What do you mean by CLR? CO1
13 Expand: FCL, WCF, LINQ, and MSIL. CO1
14 Define c\# variable. CO1
15 Different between While and do....While. CO2
16 Write a Break statement with example. CO2
17 Explain any four advantage of array. $\mathbf{C O 2}$
SECTION - C (Understanding)
Answer any THREE Questions:
(3 X 6=18 Marks)
18 Benefits of dot net. CO1
19 Write a program in Arithmetic Operation using Interface. CO1
20 Explain the visual studio IDE. CO1
21 Explain the Selection Statements with example. CO2
22 Explain any four advantage of array CO2
SECTION - D (Applying)
Answer any ONE Question:
(1X 12= 12 Marks)
23 Explain about the Dot Net Framework components with diagram. CO1
24 Write a program in String Function using sorting names. CO2

Course Code：
10CT61

Date：18．02．2021
Programme：
B．Sc
CIA：

Duration： 2 Hours
Comp．Sci．
Semester：
Year：
III
Maximum：
50
Course Title：

## WEB PROGRAMMING

## SECTION－A（Remembering）

Answer ALL the Questions：
（10 X 1 ＝ 10 Marks $)$
1 Expand HTML？ CO1
A．Hyper Texture Making of Language．B．Hyper Text Markup Language．
C．Hyper Text Marking of Links．D．Higher Text Markup Language．
2 Which HTML tag is used to display a picture on a webpage？
A．picture．
B．image．
C．img．
D．src．

3 tag makes the enclosed text into italic． CO1
A．＜b＞
B．〈a＞
C．$\langle u>$
D．$\langle i>$

4 Links are inserted using the $\qquad$ element CO1
a．〈a＞
b．〈b＞
c．〈p＞
d．＜／u＞

5 The $\qquad$ element is used to create an unordered list．
A．h1．B．h6．C．ul．D．hr．
6 Where is the correct place to insert a JavaScript？
a）The＜head＞section
b）The＜body＞section
c）The＜title＞section
d）Both the＜head＞section and the＜body＞section are correct

7 What is the correct syntax for referring to an external script called＂xxx．js＂？
a）＜script name＝＂xxx．js＂＞
b）＜script src＝＂xxx．js＂＞

8 How do you write＂Hello World＂in an alert box？
a）alertBox（＂Hello World＂）；
b） $\mathrm{msg}($＂Hello World＂）；
c）alert（＂Hello World＂）；
d） $\operatorname{msgBox}($＂Hello World＂）；

9 How do you create a function in JavaScript？
a）function myFunction ()$\{$ statements $\}$
b）function $=$ myFunction () \｛ statements $\}$
c）function：myFunction（）\｛ statement \}
d）function：：myFunction（）\｛ statements \}

10 How do you call a function named＂myFunction＂？
a）myFunction（）；
b）function：myFunction（）；
c）call myFunction（）；
d）call function myFunction（）；

SECTION－B（Remembering）
Answer any FIVE Questions：
（5 X 2 ＝ 10 Marks）
11 Define frames
CO1
12 List out any four protocols NAME CO1
13 Different between radio box and checkbox CO1
14 Define browser CO1
15 Write a javascript program to display greetings with your name CO2
16 How to run a JavaScript program CO2
17 Define new and delete operators CO2
SECTION－C（Understanding）
Answer any THREE Questions：
（3 X 6＝ 18 Marks）
18 Explain basics of internet
CO1
19 Explain briefly about TCP／IP
CO1
20 Discuss about structure of HTML CO1
21 List out the advantages of JavaScript CO2
22 Discuss about dialogue boxes in JavaScript CO2
SECTION－D（Applying）
Answer any ONE Question：
（1X 12＝ 12 Marks）
23 Explain about operators and expressions in JavaScript CO2
24 illustrate different stylesheets and selectors with example CO1

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 <br> DEPARTMENT OF COMPUTER SCIENCE 



| Course Code: | 10EP2A | Programme: | B.Sc., | CIA: | I |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Date: | 19.02 .2021 | Major: | Comp. Sci. | Semester: | VI |
| Duration: | 2 Hours | Year: | III | Max.Marks: | 50 |

Course Title:
DATA MINING AND DATA WAREHOUSING

## SECTION - A (Remembering)

Answer ALL the Questions:
(10 X 1 = 10 Marks)
1 The process of removing noise and inconsistent data is called $\qquad$ CO1
a) Data selection
b) Data cleaning
c) Data integration
d) Pattern recognition

2 Application of intelligent methods in a process to extract data patterns is called $\qquad$ CO1
a) Biometrics
b) Data selection
c) Data mining
d) Pattern recognition

3 $\qquad$ is not a Data mining functionality
a) Clustering \& Analysis
b) selection and interpretation
c) classification \& regression
CO1
d) Characterization and discrimination

4 General characteristics or features of a target class of data refers to $\qquad$ CO1
a) Data classification
b) Data selection
c) Data Discrimination
d) Data characterization

5 Which of the following is true for data classification?
a) A sub-division of a set
b) A measure of accuracy
c) Assigning a classification task d)
CO 1 All of these
6 $\qquad$ is a subject-oriented, integrated, time-variant and a non-volatile collection of data that supports management decisions.

CO1
a) Data mining
b) Web mining
c) Data warehousing
d) Text mining

7 Tasks in Data mining which characterizes the general properties of data in a database are called tasks.
a) Predictive
b) Conceptualization
c) Descriptive
d) Discrimination

8 The core of the multidimensional data model is called the $\qquad$ CO2
a) tables
b) database
c) data cube
d) Dimensions

9 A $\qquad$ system can be designed based on star or snowflakes schema CO2
a) OLTP
b) OLAP
c) Record
d) Relationships

10 Concept description is most basic form of $\qquad$ mining
a) Predictive
b) comparative
c) descriptive
d) none of these
CO2

## SECTION - B (Remembering)

Answer any FIVE Questions:
11 Define KDD? CO1
12 Give any two advantages of Online Analytical Processing? CO1
13 Define a Data Warehouse? CO1
14 Classify the categories of tasks in Data Mining? CO1
15 List the types of schema used in designing a multidimensional data model? CO2
16 Define Online Analytical Processing? CO2
17 Define Concept Hierarchy? CO2

## SECTION - C (Understanding)

Answer any THREE Questions:
(3 X 6= 18 Marks)
18 Brief a note on applications of data mining in the industry?
CO1
19 Distinguish between Data characterization and Data discrimination? CO1
20 Compare the characteristics Outlier Analysis and Evolution analysis? CO1
21 Distinguish between OLTP and OLAP? CO2
22 Bring out in brief the characteristics of a multidimensional data model with a suitable CO2
example?
SECTION - D (Applying)
Answer any ONE Question:
(1X 12= 12 Marks)
23 Enumerate on the architecture of Data mining?
CO1
24 Enumerate on the various types of operations in OLAP with an example?
CO2

## VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF COMPUTER SCIENCE
$\begin{array}{ll}\text { Course Code: } & \text { 10SB41 } \\ \text { Date: } & 15.02 .2021\end{array}$
Date: 15.02.2021 Major: Comp. Sci.
Duration: 2 Hours
Programme:
B.Sc.,

CIA:
I

II
Semester: IV
Year:
Max.Marks: 25
Course Title:
UNIX AND SHELL PROGRAMMING

## SECTION - A

Answer ALL the Questions:
(5 X $1=5$ Marks)
1 What is a shell script?
$\mathrm{CO1}$
a. group of commands
b. a file containing special symbols
c. a file containing a series of commands
d. group of functions

2 To spawn a child of our own choice for running the script, we can use
$\begin{array}{llll}\text { a.ps } & \text { b.pr } & \text { d. } \$ \$\end{array}$ a.ps

3 The complete set of positional parameters is stored in $\qquad$ as a single string.

CO1
a. $\$ n$
b. \$\#
c. \$*
d. \$\$

4 Every if is closed with a corresponding_ CO1
a. else
b. fi
c. if
d. else if

5 Test works in ___ ways.
c. $4 \quad$ d. 1
a. 3
b. 2

## SECTION - B

Answer any TWO Questions:
(2 X $2=4$ Marks)
6 Define Operating System.
7 What is meant by UNIX? CO1
8 Difference between Multiuser and multitasking CO1
9 Who is founder of UNIX operating system? CO1

## SECTION - C

Answer any ONE Questions:
(1 X 6= 6 Marks)
10 Discuss about UNIX system organization with diagram.
CO1
11 Explain any 5 basic commands
Answer any ONE Question:
(1 X 10= 10 Marks)
12 Discuss about the salient features of UNIX.
CO1
13 Explain types of shell

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 <br> DEPARTMENT OF COMPUTER SCIENCE 



Course Code: 10SB62
Date:
Duration:
1 Hour

Programme:
B.Sc.

Computer Science III
Year:

CIA:
13.02.2021 Major:

Semester: VI
Max.Marks: 25

Course Title:

SECTION - A
Answer ALL the Questions:
(5 X $1=5$ Marks)
1 Which of the following does not stages of Ethical Hacking? CO1
A) Security Access
B) Gaining Access
C) Maintaining Access
D) Scanning

Which of the following statements best describes a white-hat hacker?
$\mathrm{CO1}$
2
A) Security professional
B) Former black hat
C) Former grey hat
D) Malicious hacker

3
The keys used in cryptography are
$\mathrm{CO5}$
A) Secret key
B) Private key
C) Public key
D) All of them

4
An encryption algorithm transforms the plaintext into
CO5
A) Cipher text
B) Simple Text
C) Plain Text
D) Empty Text

| M | N | O | A | R |
| :--- | :--- | :--- | :--- | :--- |
| C | H | Y | B | D |
| E | F | G | J | K |
| L | P | Q | S | T |
| U | V | W | X | Z |

This table using YJ is encrypted as GB but NS is encrypted as $\qquad$
A) AP
B) PA
C) VA
D) Both A \& B

## SECTION - B

Answer any TWO Questions:

## SECTION - C

Answer any ONE Questions:
(1 X 6= 6 Marks)
10 What do you meant by Hacker? And different types of Hacker?
CO1
11 Write a short notes on Basic Terms in Cryptography?

## SECTION - D

Answer any ONE Question:
( $\mathbf{1}$ X 10= 10 Marks)
12 Explain about the different Stages of Ethical Hacking. CO1
13 Discuss about the Play-Fair Cipher Algorithm and Rules with any three own Examples. CO5

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 DEPARTMENT OF COMPUTER SCIENCE 

Course Code: 10AT21
Date: 20.02.2021
Programme: B.Sc
CIA:

Duration: 2 Hours
Major: Comp. Sci.
Semester: II
Max.Marks: 50
Course Title:
Year: I
STATISTICS \& PROBABILITY

## SECTION - A (Remembering)

Answer ALL the Questions:
1 The arithmetic mean of $7,3,12,8,10$ is
A) 8
B) 3
C) 9
D) 2

2 The median of values $18,20,15,35,25$ is $\qquad$ CO 1
A) 25
B) 15
C) 20
D) 18

3 Range of $8,12,5,15$ and 10 is
CO 1
A) 2
B) 5
C) 10
D) None

4 of a set of observations is their sum divided by the number of observations. CO 1
A) Mode
B) Range
C) Mean
D) Median

5 Literal meaning of dispersion is $\qquad$ CO 2
A) Measures
B) Averages
C) Scatteredness
D) Deviations

6 The formula for Co-efficient of variation is $\qquad$ CO 2
A) (SD/AM)*100
B) $\mathrm{SD}^{*} \mathrm{AM}$
C) $(\mathrm{AM} / \mathrm{SD})^{*} 100$
D) SD-AM

7 Third Quartile of 40 is $\qquad$

8
8 ___ is the difference between two extreme observations of the distribution.
CO 2
A) 30
B) 20
C) 35
D) 25
is the difference between two extreme observat
A) Mean Deviation
B) Standard Deviation
C) Quartiles
D) Range

9 Probability value of $\qquad$
A) $0<=P(E)<1$
B) $0<=P(E)<=1$
C) $0<P(E)<=1$
D) $0<\mathrm{P}(\mathrm{E})<1$

10 The no. of cases possible outcome in any trial is known as
CO 3
A) Favourable Event
B) Mutually Exhaustive Event
C) Equally likely Event
D) Exhaustive Event

## SECTION - B (Remembering)

Answer any FIVE Questions:
(5 X $2=10$ Marks)
11 Find the Mean and Median for the following 10 students.
12 Write a steps for the find mode value in discrete method.
CO 1
13 List out the types of Measure of Dispersion.
CO 2
14 Define Range with Example.
15 Define Trial and Event with example.
CO 3
16 Define Favourable Event and Equally Likely Event with example. CO 3
17 What is the chance that a leap year selected at random will contain 53 Sundays?
CO 3

## SECTION - C (Understanding)

Answer any THREE Questions:
(3 X 6= 18 Marks)
18 Calculate the Arithmetic Mean of the marks from the following table:
CO 1

| X | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F | 5 | 9 | 12 | 19 | 14 | 10 | 6 |

19 Find the Mode for the following Distribution:

| Class | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marks | 5 | 8 | 7 | 21 | 28 | 20 | 10 | 10 |

20 Calculate the Mean \& Root Mean Square Deviation for the following data.

| Marks | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | $70-80$ | $80-90$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. Of <br> Students | 3 | 61 | 132 | 153 | 140 | 51 | 2 |

21 A) A Coin tossed 3 times, Find the Chance a Throwing
(i) Three Heads,
(ii) Two Tails and Head, (iii) Head and Tail Alternative
B) A Box Contains 3 Red, 6 White, 7 Blue Balls. What is the Probability that 2 balls drawn are White and Blue?

22 If two Dice are thrown, What is the Probability that the sum is (a) Greater than equal 8, and (b) neither 9 nor 11.
SECTION - D (Applying)

Answer any ONE Question:
(1X 12= 12 Marks)
23 The Median and Mode of the following wages distribution are known to be Rs. 33.50 and Rs. 34.00 Respectively. Show that the values of $\mathrm{f} 3, \mathrm{f} 4$ and f 5 are 60,100 and 40 respectively.

| Wages | $0-10$ | $10-20$ | $20-30$ | $30-40$ | $40-50$ | $50-60$ | $60-70$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employees | 4 | 16 | f3 | f4 | f5 | 6 | 4 | 230 |

## 24 Each Questions are both same (4) marks:

## CO 2

A) Prove that for any Discrete Distribution, Standard Deviation is not less than mean Deviation from Mean.
B) It was group of 200 candidates the A.M and S.D of scores were found to be 40 and 15 respectively. Later on it was discovered that the scores 43 and 35 were misread as 34 and 53 respectively. Find the Corrected A.M and S.D corresponding to the corrected figures.
C) An analysis of monthly wages paid to the workers of two Firms A and B. Belonging to the same Industry Gives the following results:

| Company | Firm A | Firm B |
| :---: | :---: | :---: |
| Worker Details |  | 600 |
| No. of Workers | 500 | Rs. 175 |
| Averages of Wages | Rs. 186 | 100 |
| Variance of <br> Distribution of <br> Wages | 81 |  |

I. Which Firm A or B has a larger Average wage Bill?
II. In Which Firm A or B is there greater variability in individual Wages?

## VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 DEPARTMENT OF COMPUTER SCIENCE

Course Code: 10AT41

| 10AT41 | Programme: | B.Sc | CIA: | I |
| :--- | :--- | :--- | :--- | :--- |
| 20.02 .2021 | Major: | Comp. Sci. | Semester: | IV |
| 2 Hours | Year: | II | Max.Marks: | 50 |

Course Title: NUMERICAL METHODS FOR COMPUTER SCIENCE

## SECTION - A (Remembering)

Answer ALL the Questions:
( $10 \times 1$ X 10 Marks)
1 $\qquad$ used to interpolate nearer to starting value of table

CO2
a) Newton forward
b) Newton backward
c) Guass forward and backward
d) all
$2 \mathrm{EY}_{0}=$ $\qquad$ CO 2
a) $\mathrm{Y}_{-1}$
b) $\mathrm{y}_{0}$
c) $\mathrm{y}_{1}$
d) $y_{2}$

3
formulae used for equal interval
CO 2
a) Newton forward
b) Newton backward
c) Guass forward and backward
d) all

4 is /are following central interpolation methods
a) Guass forward
b) Guass backward
c) Laplace Everett d) all

5 Guass forward and backward interpolation derived from CO3
a) Newton forward
b) Guass forward and backward
c) Laplace Everett
d) Newton's cote

6 How we find the missing value use of CO2
a) $\Delta$ and E
b) $\Delta$ and F
c) $\Delta$ and G
d) $\Delta$ and $h$

7 used to interpolate nearer to ending value of table
a) Newton forward
b) Newton backward
c) Guass forward and backward

8 The order of the matrix $\mathrm{B}=\left[\begin{array}{lll}1 & 2 & 7\end{array}\right]$ is $\qquad$ .

9 The technique for computing the value of the function inside the given argument is called ---
a) interpolation
b) extrapolation
c) partial fraction
d) inverse interpolation

10 The technique for computing the value of the function outside of the given argument is called ---
a) interpolation
b) extrapolation
c) partial fraction
d) inverse interpolation

## SECTION - B (Remembering)

Answer any FIVE Questions:
11 Define interpolation CO2
12 Write about Gauss-Elimination method CO2
13 Write a formula of Newton forward interpolation with u CO2
14 Write a formula of Newton backward interpolation with v CO2
15 write a procedure to solve Gauss-jordan method CO2
16 Define central interpolation $\mathbf{C O 3}$
$17(\mathrm{E}-1)^{4}=$ ? $\quad$ CO2

Answer any THREE Questions:
18 Solve the system by Gauss-Jordan method
$x+2 y+2 z=7 ; 3 x+2 y+4 z=13 ; 4 x+3 y+2 z=8$.
19 Solve the system by Gauss-Elimination method
$2 \mathrm{x}+3 \mathrm{y}-\mathrm{z}=5 ; 4 \mathrm{x}+4 \mathrm{y}-3 \mathrm{z}=3 ; 2 \mathrm{x}-3 \mathrm{y}+2 \mathrm{z}=2$.
20
Find the inverse of by Gaussian Elimination Method using A= $\begin{array}{llll}3 & 2 & 3\end{array}$
149
21 Apply Gauss forward formula and estimate $f(3.5)$ from the following table
CO 3

| X | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathrm{Y}=\mathrm{f}(\mathrm{x})$ | 2.629 | 3.454 | 4.784 | 6.986 |

22 Apply Gauss backward formula and estimate $\sqrt{12516}$ from the following table

| X | $\sqrt{12500}$ | $\sqrt{12510}$ | $\sqrt{12520}$ | $\sqrt{12530}$ |
| :--- | :--- | :--- | :--- | :--- |
| Y | 111.803399 | 111.848111 | 111.892805 | 111.937483 |

## SECTION - D (Applying)

Answer any ONE Question:
(1X 12= 12 Marks)
23 Find $x=46$ and $x=63$ from the following data

| X | 45 | 50 | 55 | 60 | 65 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 114.84 | 96.16 | 83.32 | 74.48 | 68.48 |

24 From the following data find $x=43$ and $x=84$ and also express in $x$ terms

| X | 40 | 50 | 60 | 70 | 80 | 90 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Y | 184 | 204 | 226 | 250 | 276 | 304 |

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 <br> DEPARTMENT OF COMPUTER SCIENCE 

Course Code: 10CT21
Date:
Duration:
16.02.2021 Major: Comp. Sci.

2 Hours Year: I
CIA:
Semester: II

OBJECT ORIENTED PROGRAMMING WITH C++

## SECTION - A (Remembering)

Answer ALL the Questions:
(10 X 1 = 10 Marks)
OOP language supports object based features, inheritance and
A. Encapsulation.
B. Polymorphism.
C. Object identity.
D. Functions.

2
ing language.
A. Module.
B. Code.
C. Object.

CO1
Public, private, protected are $\qquad$ .
D. Function.

3 A. identifiers.
B. data members.
C. access specifies.
D. type of class

A structure defines a $\qquad$ type.
C. arrays. CO1
A. class.
B. pointers.
D. variables.

Which of the following is a logical operator?
C. $==$
D. \& \&
A. ++
B.?:
A $\qquad$ is an instance of class.
B. object
C. variable.
D. pointer.
$\qquad$ polymorphism.
7 A. Inheritance.
B. Data overloading.
C. Operator overloading. D. Message binding.
$\qquad$ is a relationship between classes.

CO1
8 A. Polymorphism.
B. Inheritance.
C. Overloading.
D. Overriding.

In C++, 14 \% 4 = $\qquad$ .
B. 2
C. 3
D. 4
$\mathrm{C}++$ begins its execution with $\qquad$ .
A. header file.
B. main.
C. class.

## SECTION - B (Remembering)

D. declaration.

CO1

Answer any FIVE Questions:
(5 X $2=10$ Marks)
11 Any TWO difference between C and C++ CO1
12 Define Class CO2
13 Define Methods CO2
14 Define Encapsulation CO1
15 Define Polymorphism CO1
16 Write about Identifier CO1
17 List out the types of Operators CO1
SECTION - C (Understanding)
Answer any THREE Questions:
(3 X 6= 18 Marks)
18 Explain about Increment and Decrement Operator with Example CO1
19 Write about WHILE and DO-WHILE Loop with Example CO1
20 Explain about the Scope resolution Operator CO2
21 Discuss about Data types \& Variables with examples? CO1
22 Write a C++ program to find the odd or even number. CO2
SECTION - D (Applying)

Answer any ONE Question:
(1X 12= 12 Marks)
23 Estimate explain about the basic concepts of OOPs with examples? CO1
24 Apply the concept of Inline function with a suitable example. CO2

# VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234 <br> DEPARTMENT OF COMPUTER SCIENCE 



Course Code: 10CT22
Date:
19.02.2021

2 Hours

| Programme: | B.Sc |
| :--- | :--- |
| Major: | Comp. Sci. |
| Year: | I |

Duration:

## DATA STRUCTURE

## SECTION - A (Remembering)

Answer ALL the Questions:
(10 X 1 = 10 Marks)
1 refers to a value or a set of values or facts.
a) Database
b) Data
c) Table
d) Record

2 $\qquad$ is a collection of field values of a given entity.
a) File
b) Data Item
c) Record
d) Entity Set

CO1
3 ___ refers to a single unit of value in a record
a) Relation
b) Tuples
c) Data Item
d) Objects

4 $\qquad$ is about rendering data elements based on relationship, for better organization and
storage of data. a)
a) DBMS
b) Data Mining
c) Data structure
d) File

CO1
5 Which one of these is a Non-Primitive data structure?
a) integer
b) float
c) char
d) stack
CO1

6 Identify the non - linear data structure $\qquad$ a) integer
b) float c) Tree
d) linked list

CO1
7 If a Linear Array can hold 9 elements then the maximum value of the index is $\qquad$ .
a) 0
b) 9
c) 7
d) 8

8 Identify the non - linear data structure $\qquad$ a) Stack b) float
c) Tree
d) Linked List CO1
$\qquad$ is a sequential search that CO2
a) Linear search
b) Binary search
c) Linear stack
d) Integer

10 Binary Search can be categorized into which of the following? $\qquad$
a) Brute Force technique
b) Divide and Conquer
c) Greedy algorithm
d) dynamic
CO 2 programiing

## SECTION - B (Remembering)

Answer any FIVE Questions:
(5 X 2 = 10 Marks)
11 Give any two uses of a data structure? CO1
12 Give any two examples for Non Linear Non primitive data structure? CO1
13 Define a Record? CO1
14 List the attributes of a Linear Array? CO1
15 List the types of sorting algorithms? $\quad \mathbf{C O 2}$
16 Distinguish In-place sorting and Not-in-place sorting? CO2
17 Define Adaptive Sorting? CO2
SECTION - C (Understanding)
Answer any THREE Questions:
(3 X 6=18 Marks)
18 Brief a note on data structure organization?
CO1
19 Summarize the representation of Linear Arrays in memory CO1
20 Bring out the classification of data structures? CO1
21 Critically analyze the implementation of a linear array? CO1
22 Brief a note on Binary search operations? CO2
SECTION - D (Applying)
Answer any ONE Question:
(1X 12= 12 Marks)
23 Compare and analyze the insertion and deletion operations of Linear Arrays with a
suitable algorithms and a program in C++ for each operation?
24 Explain the operations of Binary Search with a suitable algorithm?

