



VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST

(Autonomous & Residential)

[Affiliated to Madurai Kamaraj University]

B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Allied Subject : Second Semester : Paper – I

STATISTICS & PROBABILITY

Under CBCS – Credit 5

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

- The diagram of continuous rectangles obtained is called_____
 a) Polygon b) Par chart c) Histogram d) Pie chart
- The median of values 18, 20, 15, 35, 25 is_____
 a) 25 b) 15 c) 20 d) 18
- Range is_____
 a) L-S b) $X_{\max} - X_{\min}$ c) S-L d) Both A&B
- _____ is the best & powerful measure of dispersion.
 a) Standard deviation b) Quartile Deviation
 c) Mean Deviation d) Range
- In a throw of coin what is the probability of getting head.
 a) 2/1 b) 2 c) 1/2 d) 1
- Baye's theorem developed by ____
 a) Michael Bayes b) Pascal Bayes c) Thomas Bayes d) Format Bayes
- Toss of a coin, find the sample space_____
 a) (H, T) b) (H, H) c) (T, T) d) None of these

8. Which of the following is not possible in probability distribution?

- a) $P(x) \geq 0$ b) $\sum P(x) = 1$ c) $\sum x P(x) = 2$ d) $P(x) = -0.5$

9. In Sampling without replacement, an element can be chosen_____

- a) Less than once b) More than once c) Only once d) Difficult to tell

10. Mode is the value of x where $f(x)$ is a maximum if X is continuous.

- a) True b) False c) Both a&b d) Neither a&b

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. What do you mean frequency table?

12. Define frequency densities.

13. Define Dispersion.

14. What do you mean by range?

15. Define trail and event.

16. Define statistics.

17. What is Histogram?.

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a) . Find the arithmetic mean of the following frequency distribution.

x :	1	2	3	4	5	6	7
f :	5	9	12	17	14	10	6

[OR]

b). Write down graphic representation of a frequency distribution.

19. a). Discuss about the measures of Dispersion.

[OR]

b). A cycle pedals from his house to his college at a speed of 10Km p/h and back from the college to his house at 15Km p/h. Find the average speed.

20. a). What is the change that a leap year selected at random will contain 53 Sundays?

[OR]

b). A bag contains 3 red, 6 white and 7 blue balls. What is the probability that two balls drawn are white and blue?

21. a). Find the median for the following distribution.

Wages	2000-3000	3000-4000	4000-5000	5000-6000	6000-7000
Workers	3	5	20	10	5

[OR]

b). Find the mode for the following distribution:

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	5	8	7	12	28	20	10	10

22. a). Prove that for any Discrete distribution, Standard Deviation is not less than Mean Deviation from the mean.

[OR]

b). Find the Mean Deviation for the following data.

X	2	4	6	8	10
F	1	4	6	4	1

SECTION – D

Answer any THREE Questions :

$(3 \times 10 = 30)$

23. Write down merits and demerits of Median.

24. Find the mean for the following distribution:

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Students	12	18	27	20	17	6

25. A card is drawn from a well-shuffled pack of playing cards. What is the probability that it is either a spade or an ace.

26. A Coin is tossed 3 times, Find the chance a throwing.

i) Three heads, ii) Two heads and tail iii) Heads to tail alternative

27. Two unbiased dice are thrown, Find the Probability that,

i) Both the dice shown the same number.

ii) The first dice shows 6.

iii) The total of the number on the dice is 8.

iv) The total of the number on the dice is greater than 8.

v) The total of the number on the dice is 13.

vi) The total of the numbers on the dice is any number from 2 to 12.

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Allied Subject : Fourth Semester : Paper – I

NUMERICAL METHODS FOR COMPUTER SCIENCE

Under CBCS – Credit 5

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

- In which of the following method, we approximate the curve of solution by the tangent in each interval.
 - Picard's method
 - Euler's method
 - Newton's method
 - Range Kutta method
- Newton-Raphson method is used to find the root of the equation $x^2 - 2 = 0$. If iterations are started from - 1, then iterations will be
 - converge to -1
 - converge to $\sqrt{2}$
 - converge to $-\sqrt{2}$
 - No converge
- $E^4 - 4E^3 + 6E^2 - 4E + 1 =$ _____
 - E^4
 - $(E-1)^4$
 - $(E+1)^4$
 - $(E-1)^3$
- Rounding off the number 32.68673 to 4 significant digits, we get a number _____
 - 32.68
 - 32.69
 - 32.67
 - 32.686
- The Runge-kutta method of second order is nothing but ____
 - Euler Method.
 - Taylor method
 - Modified Euler method
 - Improved Euler

6. The forward difference operator denoted by the symbol is_____.

- a). delta b). nabla c). omega d). beta

7. If $h=2$, find the value of y when $x=5$ by Newton Forward Interpolation

Formula? X: 4 6 Y: 1 3

- a). 0 b). 2 c). 3 d). 4

8. The positive root of the equation $x^2 - 6x = 13$ lies in the interval_____

- a). (0, 1). b). (1, 2). c). (2, 3). d). (3, 4)

9. The _____ matrix in the normal equations is symmetric.

- a). Square. b). Scalar . c). Co-efficient. d). Upper triangular

10. Consider the following system of linear equation:

$$3x + y + z = 0, \quad x + 4y - z = 1, \quad 2x - y + 5z = 2$$

If current approximation is $x = 0$, $y = 0.25$, $z = 0.45$, then the Gauss-

Seidel method will give next approximation as $x = -0.23$, $y = 0.42$ and $z =$

- a) 0.58 b) 0.48 c) 0.7 d) 0.24

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. Write down the formula of Laplace Everett's.

12. Define interpolation.

13. What do you mean Gauss-Jordan elimination method?

14. Solve the equation $x+y=2$ and $2x+3y=5$ by Gauss elimination method.

15. Write down Gauss-Forward interpolation formula.

16. What do you mean numerical integration?

17. Write down the formula for Trapezoidal rule.

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a). Find the missing value of the following table:

Year	1917	1918	1919	1920	1921
Export (in tons)	443	384	-	397	467

[OR]

b). Find the values of y at $x = 21$ and $x = 28$ from the following data.

x	20	23	26	29
y	0.3420	0.3907	0.4384	0.4848

19. a). Solve the following system of equation using Gaussian elimination method.

- i). $x+y+z=9$ ii). $2x-3y+4z=13$ iii). $3x+4y+5z=40$

[OR]

b). Solve the following equation by Gauss Jordan method.

- i). $x+y=2$ ii). $2x+3y=5$

20. a). Apply Gauss forward Central difference formula and estimate $f(32)$ from the following table.

x	25	30	35	40
$y=f(x)$	0.2707	0.3027	0.3386	0.3794

[OR]

b). Use Lagrange's formula to find the value of y at $x=6$ from the following data

x	3	7	9	10
y	168	120	72	63

21. a). Evaluate $\int_0^1 \frac{dx}{1+x^2}$ using Trapezoidal rule with $h=0.2$. Hence

determine the value of Π .

[OR]

b). Evaluate $I = \int_0^6 \frac{1}{1+x} dx$ using Simpson's one-third rule Where $h=1$.

22. a). Evaluate $I = \int_0^2 \frac{dx}{1+x^2}$ using Romberg's method.

[OR]

b). Form the divided difference table for the following data:

x	-2	0	3	5	7	8
y=f(x)	-792	108	-72	48	-144	-252

SECTION – D

Answer any THREE Questions : **(3 × 10 = 30)**

23. Apply Gauss's backward interpolation formula find the population for the year 1936 given that:

Year (x)	1901	1911	1921	1931	1941	1951
Population in thousand (y)	12	15	20	27	39	52

24. Find the inverse of matrix $A = \begin{pmatrix} 2 & 1 & 1 \\ 3 & 2 & 3 \\ 1 & 4 & 9 \end{pmatrix}$ Using Gaussian method.

25. Using Newton's divided difference formula, find the values of $f(2)$, $f(8)$ and $f(15)$ given the following table:

x	4	5	7	10	11	13
f(x)	48	100	294	900	1210	2028

26. From the following table of half-yearly premium for policies maturing at different ages, estimate the premium for policies maturing at age 46 and 63.

Age	x :	45	50	55	60	65
Premium	y :	114.84	96.16	83.32	74.48	68.48

27. Evaluate $\int_{-3}^3 x^4 dx$ by using i) Trapezoidal rule ii) Simpson's both rule

verify your results by actual integration (h=1).

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Part – III : Core Subject : Second Semester : Paper – I

OBJECT ORIENTED PROGRAMMING WITH C++

Under CBCS – Credit 4

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

- When a data type must contain decimal numbers, assign the _____ type.
A. int. B. char. C. double. D. long int.
- What punctuation ends most lines of C++ code?
A. . (dot). B. ; (semi-colon). C. : (colon). D. ' (single quote).
- Which is not a loop structure?
A. for. B. do while. C. while. D. repeat until.
- The other name for derived class is _____.
A. subclass B. super class C. subordinate class D. base class
- _____ integer can hold both positive and negative values.
A. Unsigned. B. Positive. C. Negative. D. Signed.
- A function that does not return a value will have return type _____.
A. int B. void C. float D. char
- The _____ keyword brings the members of a namespace into view.
A. view. B. using. C. additive. D. show.
- >> is called as _____ operator.
A. insertion. B. extraction. C. greater than. D. lesser than.

b). What are the possibilities of defining a member function? Explain.



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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Core Subject : Second Semester : Paper – II

DATA STRUCTURE

Under CBCS – Credit 4

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

1. A_____is a list of elements in which an element may be inserted or deleted only at.
A. Push B. Pop C. Stack D. None
2. New data are to be inserted into a data structure, but there is no available space; this Situation is usually called_____.
A. Underflow B. Overflow C. Houseful. D. Saturated.
3. In Double linked list each node is having _____ field.
A. 4 B. 3 C. 2 D. 1
4. A data structure is a set of_____.
A. characters. B. numbers. C. domains. D. tables.
5. _____ a tree means processing it in such a way that each node is visited only once.
A. Traversing. B. Implement. C. Partition. D. Node.
6. If FRONT = NULL then _____.
A. queue full B. queue empty C. dequeue D. priority queue

7. The string with zero characters is called_____.

- A. null string B. zero string C. one string D. empty string.

8. Allocating memory for arrays during program compilation is_____.

- A. dynamic memory allocation B. memory allocation
C. static allocation D. random allocation

9. A vertex of degree one is called _____.

- A. pedant B. isolated vertex C. null vertex D. colored vertex

10. A list that has no nodes is called_____.

- A. End list B. Zero list C. Null list D. Sentinel list

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. Define array

12. What is pointer?

13. What is dequeue?

14. Mention the representations of linked list in memory.

15. Differentiate tree, binary tree and binary search tree.

16. What is sorting ? Mention various sorting techniques.

17. Differentiate stack and queue.

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a) . Explain bubble sort

[OR]

b). Explain linear search

19. a). Explain various operations on stack

[OR]

b). Discuss linked representation of queues

20. a). Explain inserting and deleting element in linked list

[OR]

b). Discuss the representation of linked list.

21. a). Explain the representation of binary trees in the memory.

[OR]

b). Explain about the searching an element in binary search trees

22. a). Explain insertion sort

[OR]

b). Explain selection sort

SECTION – D

Answer any THREE Questions :

(3 × 10 = 30)

23. Explain binary search.

24. Discuss the array representation of stacks.

25. Describe the searching an element in linked list.

26. Explain various binary tree traversals.

27. Explain merge sort.

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Core Subject : Fourth Semester : Paper – I

RELATIONAL DATABASE SYSTEMS

Under CBCS – Credit 4

Time: **3** HoursMax. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

1. Ranking of queries is done by which of the following?
 - a. Group by
 - b. Order by
 - c. Having
 - d. Both Group by and Order by
2. Relational algebra became prominent after the relational model of database was published by:
 - a. Codd
 - b. F.F. codd
 - c. E.E. codd
 - d. None of these
3. Trigger are supported in
 - a. Delete
 - b. Update
 - c. Views
 - d. All the above
4. Fast access to data items can be provided through
 - a. Data dictionary
 - b. MetaData files
 - c. Data files
 - d. Indices
5. If a set is a collection of values given by the select clause, the _____ connective tests for set membership
 - a. within
 - b. include
 - c. under
 - d. in
6. The SQL command to create a table is
 - a. MAKE TABLE
 - b. ALTER TABLE
 - c. DEFINE TABLE
 - d. CREATE TABLE

7. The SQL keyword(s) _____ is used with wildcards.
a. LIKE only b. IN only c. NOT IN only d. IN and NOT IN
8. SQL outputs a single table known as the _____
a. view b. column c. Table space d. Result set
9. Which command is use for removing a table and all its data from the database:
a. Create command b. Drop table command
c. Alter table command d. All of these
10. Drop Table cannot be used to drop a table referenced by a _____ constraint.
a. Local Key b. Primary Key c. Composite Key d. Foreign Key

SECTION – B

Answer any FIVE Questions : **(5 × 2 = 10)**

11. What is Database?
12. Define E-R Model.
13. Define Data Dictionary.
14. Expand DDL and DCL.
15. Define Backup.
16. Write the Syntax for Drop Command.
17. What is Cursor?

SECTION – C

Answer ALL Questions : **(5 × 5 = 25)**

18. a) . Write a Short note on Relational Model.
[OR]
b). Discuss about the Components of an E-R Model.
19. a). Explain First-Normal form.
[OR]
b). Discuss about the DML Command.
20. a). Explain Transaction States.
[OR]
b). Explain Client –Server Systems.
21. a). Discuss about the Set operators.
[OR]
b). Explain Update, delete Operation in SQL.
22. a). Discuss about the Cursor with Example.
[OR]
b). Write a Short note on Database triggers.

SECTION – D

Answer any THREE Questions : **(3 × 10 = 30)**

23. Explain the Different types of Attributes.
24. Discuss about the Boyce-codd normal form.
25. Explain Transaction Properties.
26. Explain Aggregate function.
27. Explain the Structure of PL/SQL with example.

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Core Subject : Fourth Semester : Paper – II

DOT NET PROGRAMMING

Under CBCS – Credit 4

Time: **3** HoursMax. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

1. For which task does the IDE provide multiple ways to accomplish the task?
A. Putting a control on the form. B. Running the program.
C. Activating the property window for a control. D. All of the above.
2. The right side of an assignment statement will hold:
A. a variable. B. an object property.
C. an expression. D. Both a and b.
3. What is the value of the index for the first element in a VB.NET array?
A. 0. B. 1. C. 2. D. 3.
4. How do user terminate code execution using VB.NET method?
A. Exit. B. Close. C. Close Sub. D. Exit Sub.
5. How many predefined data types can be defined in VB.NET for the use in a programs?
A. 1 B. 2 C. 12. D. None.
6. Which is a valid statement for declaring a variable?
A. Const Form As Integer B. Constmy Form As Integer
C. Dim Form As Integer D. Dim my Form As Integer

7. _____ is the folder that contains web applications in a web server.
A. Root Folder B. Web Folder C. Virtual Folder D. Program Folder
8. Select the control which does not have any visible interface
A. Data List B. Data Grid C. Repeater D. Drop Down List
9. Which of the following does the actual .Net code execute?
A. CLS B. MSIL C. CTS D. CLR
10. Which validation is performed by a user defined function?
A. RequiredValidator. B. RegularValidator.
C. CustomValidator. D. CompareValidator

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. What are the steps to compile in .NET?
12. Define polymorphism.
13. What is a constructor?
14. What do you mean by CLR?
15. Expand: FCL, WCF, LINQ, MSIL.
16. What is ASP.NET?
17. Define Array.

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a) . Show the role of Common Language Runtime(CLR) in .NET.

[OR]

- b). Compare class with structure.

19. a). Demonstrate how C# support multilevel inheritance? Explain by giving an example.

[OR]

- b). Illustrate interfaces in C# with an example.

20. a). Write a program in Arithmetic operation using Interface.

[OR]

- b). Explain visual studio IDE.

21. a). Explain the selection statements with example.

[OR]

- b). Define exception with example.

22. a). Explain the benefits of .NET.

[OR]

- b). Explain about the Polymorphism with types.

SECTION – D

Answer any THREE Questions :

(3 × 10 = 30)

23. Construct a C# program using conditional statements and loop to generate Fibonacci series.
24. Make use of the user defined Exceptions develop an application to find whether the give number is even or not.
25. Write a program in string function using, sorting names.
26. Explain about .NET Framework components.
27. Explain the constructors.

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Core Subject : Sixth Semester : Paper – I

WEB PROGRAMMING

Under CBCS – Credit 4

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

1. Tag makes the enclosed text bold. What is other tag to make text bold?
 a) b) <a> c) <u> d) <i>
2. The first page of website is called _____.
 a) Web page b) home page c) front page d) page
3. HTTP stands for _____.
 a) Hypertext Transfer Protocol b) Hypertext Transmission Protocol
 c) Hyper Text Transfer Program d) Hyper text Traditional Protocol
4. What is the code snippet to go back to a history twice?
 a) history (2); b) history(-2); c) history.go(-2); d) history.go(2);
5. The script tag must be placed in
 a) head b) head and body
 c) title and head d) all of the mentioned
6. Cookies were originally designed for
 a) Client-side programming b) Server-side programming
 c) Both Client-side & Server-side programming
 d) None of the mentioned

7. If \$a = 12 what will be returned when (\$a == 12) ? 5 : 1 is executed?

- a) 12 b) 1 c) Error d) 5

8. POSIX stands for

- a) Portable Operating System Interface for Unix
b) Portable Operating System Interface for Linux
c) Portative Operating System Interface for Unix
d) Portative Operating System Interface for Linux

9. If there is no error, then what will the error() method return?

- a) TRUE b) FALSE c) Empty String d) 0

10. Which keyword is used to declare a constant property?

- a) const b) con c) constant d) _constant

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. Define CSS.

12. Define Linking Documents using HTML.

13. What is the Meaning of JavaScript?

14. Define Variable.

15. Define the term Cookies.

16. What is the meaning of PHP?

17. Define PHP Functions.

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a) Difference between HTML and XHTML.

[OR]

b) Write an advantages of (CSS).

19. a) List the advantage of Javascript.

[OR]

b) Explain array creation in Javascript with an Example.

20. a) Discuss in detail What is browser object model?

[OR]

b) Write short notes on Cookies.

21. a) Briefly explain the concept of an Array?

[OR]

b) Write short notes on Scalar Data type using PHP.

22. a) Explain the concept of External sheet with example.

[OR]

b) Describe in detail about class in CSS with example.

SECTION – D

Answer any THREE Questions :

(3 × 10 = 30)

23. Explain the font Attributes, color and background attributes in CSS.

24. List the various dialog boxes in JavaScript.

25. Explain the concept os User Defined Objects.

26. Discuss about the concept of Operators and their types.

27. Explain the looping concepts of:

- i) for loop ii) while loop iii) do..while with example.

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – III : Core Subject : Sixth Semester : Paper – I

DATA MINING AND DATA WAREHOUSING

Under CBCS – Credit 5

Time: **3** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

1. ____ technique is used in discovery and analysis of exceptional cases on data in data mining
 - a) Cluster analysis
 - b) Summarization
 - c) Outlier analysis
 - d) Evolution analysis
2. The data ware house is ____
 - a) read only
 - b) read and write
 - c) write only
 - d) none
3. ____ schema has a large fact table and a set of small dimension tables
 - a) Star
 - b) Snowflakes
 - c) Fact Constellation
 - d) none of these
4. How many types of views are to be considered while designing a data warehouse ____
 - a) 2
 - b) 3
 - c) 5
 - d) 4
5. Data that can be modified as dimension attributes and measures attributes are called as ____ data
 - a) Multidimensional
 - b) Single dimensional
 - c) measured
 - d) Dimensional

6. _____ is a powerful visualization tool that allows the user to view whether there is a shift in going from one distribution to another

- a) Q-Q plot b) Histogram c) Quartile plot d) none of these

7. _____ methods are used by researchers in machine learning, expert systems, statistics and neurobiology

- a) Classification and prediction b) association rule
c) clustering d) outlier analysis

8. _____ represents the classes and class distribution in a decision tree

- a) Internal node b) branch c) leaf node d) root node

9. _____ is a set of connected input/output units where each connection has a weight associated with it.

- a) Neural Networks b) Rain forest
c) Bayesian Networks d) belief networks

10. _____ is applied in the genomic research in the study of DNA sequences

- a) Data Mining b) OLTP c) ERP d) Data sciences

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. Define Data mining.

12. List out the Classification methods of Data Mining.

13. What is a data warehouse and what is it used for?

14. What are the four typical operations of OLAP?

15. What is Concept description?

16. Differentiate Classification and Prediction?

17. How to choose data mining system?

SECTION – C

Answer ALL Questions :

(5 × 5 = 25)

18. a) . Discuss on what kinds of data can be mined?

[OR]

b). Explain the various steps in KDD with its diagram

19. a). Differentiate OLTP and OLAP.

[OR]

b). State four different views regarding a data warehouse design must be considered.

20. a). Write short notes on Attribute relevance analysis

[OR]

b). Explain Analytical Characterization.

21. a). Discuss issues regarding classification methods.

[OR]

b). Explain Decision Tree Induction Algorithm.

22. a). Explain application of Data Mining.

[OR]

b). Explain Visual Data Mining.

SECTION – D

Answer any THREE Questions :

(3 × 10 = 30)

23. What are the Major Issues in Data Mining? Discuss.

24. Elaborate on Data warehouse Implementation.

25. What is Attribute oriented induction? Elaborate on its basic principles.

26. Explain types of data in Cluster Analysis

27. Write notes on trends in Data Mining

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B.A. & B.Sc. Degree (Semester) Examinations, April 2019

Part – IV : Non Major Elective Subject : Second Semester : Paper – I

WEB PROGRAMMING

Under CBCS – Credit 2

Time: **2** HoursMax. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

1. Expand HTML?
 - A. Hyper Texture Making of Language.
 - B. Hyper Text Markup Language.
 - C. Hyper Text Marking of Links.
 - D. Higher Text Markup Language.
2. HTML is similar to a _____.
 - A. word processing language.
 - B. screen editor.
 - C. scripting language
 - D. search engine.
3. Links are inserted using the _____ element.
 - A. <a>.
 - B. .
 - C. <c>.
 - D. <title>.
4. Shape="_____" creates a circular hotspot.
 - A. circ.
 - B. circle.
 - C. round.
 - D. encircle.
5. DOM is an acronym for _____.
 - A. document object model.
 - B. document object metrics.
 - C. digital object model.
 - D. digital object metrics.

6. Text based browsers are unable to render a _____ element.
 A. title. B.head. C. frameset. D. thead.
7. All elements of an image map are contained inside the _____ tags.
 A. <image>. B. <map>. C. <poly>. D. <src>.
8. The _____ element places a button in the form that submits data to the server.
 A. type='reset'. B. type='submit'.
 C. type='text' D. type='password'.
9. HTML documents are created using _____ editors.
 A. markup B. text. C. image. D. paint.
10. The input _____ inserts a one-line text bar into the form.
 A. type='reset'. B. type='submit'.
 C. type='text' D. type='password'.

SECTION – B

Answer any FIVE Questions : **(5 × 2 = 10)**

11. Expand TCP and HTTP.
12. Expand <hr> and .
13. List out the any four web browsers?
14. Define Marquee tag with an example?
15. The following purpose of tag.
 (i) (ii)

16. Define internet.
17. Type of list tag in HTML.

SECTION – C

Answer ALL Questions : **(3 × 9 = 27)**

18. a) Explain about heading tags with suitable example program.
[OR]
 b) Write any simple program to create table.
19. a) Briefly discuss about ordered list with example program
[OR]
 b) Briefly explain about unordered list with suitable example program.
20. a) Briefly discuss about the structure of HTML.
[OR]
 b) Explain the followings: i) Browser ii) HTTP

SECTION – D

Answer any TWO Questions : **(2 × 14 = 28)**

21. Write a HTML program to display your Bio- Data using Form tag.
22. Discuss in detail about list tag?
23. How to create table using its various attributes? explain with an example program.
24. Write a HTML program to display your time table.

Y Y Y Y Y

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST**

(Autonomous & Residential)

[Affiliated to Madurai Kamaraj University]

B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – IV : Skill Based Subject : Fourth Semester : Paper – I

UNIX AND SHELL PROGRAMMING

Under CBCS – Credit 2

Time: **2 Hours**Max. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

1. Which of the following commands let us perform a set of instructions repeatedly?
a) for b) while c) until d) for, while, until
2. Who created Bourne shell?
a) Dennis Ritchie b) Ken Thompson
c) Straustraup d) Steve Bourne
3. Which of the following loop statements uses do and done keyword?
a) for b) while c) case d) for and while
4. The `expr` can perform _____ arithmetic operations.
a. 2 b. 4 c. 5 d. 3
5. A process is _____.
a) collection of threads b) a thread
c) software d) a running program

6. Let a = 5, b = 6. Choose the proper command to perform multiplication?
 a) expr \$a * \$b b) expr \$a * \$b c) \$(a*b) d) None of the above.
7. Which command can give disk usage summary?
 a) chkdsk b) fdisk c) du d) df
8. Choose the command to print the current working directory.
 a) cwd b) pwd c) wd d) nwd
9. The following command can list out all the current active logins.
 a) who am i b) who am I c) who d) None of the above.
10. Unix OS was first developed by _____.
 a) Dennis Ritchie b) Bjarne Stroustrup
 c) Ken Thompson d) Brian kernigham

SECTION – B

Answer any FIVE Questions : (5 × 2 = 10)

11. Define operating system.
12. What is meant by UNIX?
13. Difference between multiuser and multitasking
14. Define ls command
15. Discuss about following purpose of command: i) Man ii) cal
16. What is meant by banner command with example?
17. What is a shell program?

SECTION – C

Answer ALL Questions : (3 × 9 = 27)

18. a) briefly discuss salient features of UNIX.

[OR]

b) Describe about UNIX system organization with diagram

19. a) Explain the touch command.

[OR]

b) Write a shell program to subtraction of two numbers.

20. a) Explain shell variable and rules.

[OR]

b) Discuss about case statements in UNIX.

SECTION – D

Answer any TWO Questions : (2 × 14 = 28)

21. Explain operators in shell program.

22. Write a shell program to check whether the number is odd or even.

23. Explain the loop control structures.

24. Define functions and user define function.

Y Y Y Y Y



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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – IV : Skill Based Subject : Sixth Semester : Paper – I

PC HARDWARE AND TROUBLE SHOOTING

Under CBCS – Credit 2

Time: **2** Hours

Max. Marks: **75**

SECTION – A

Answer ALL Questions :

(10 × 1 = 10)

1. RAM Stands for_____.
 - a. Random Access Memory
 - b. Read Access Memory
 - c. Ready Access Memory
 - d. Random Arithmetic Memory
2. Central Processing Unit (CPU) consists of
 - a. control unit
 - b. arithmetic and logic unit
 - c. main store
 - d. all of above
3. Devices that accepts data from outside computer and transfer into CPU are called
 - a. Input device
 - b. Output device
 - c. Analog device
 - d. Digital device
4. The URL means
 - a. use resource locator.
 - b. undefined resource locator
 - c. uniform resource locator.
 - d. user defined locator.
5. WAN stands for
 - a. wire and network
 - b. wire accessible network
 - c. widely accessible network
 - d. wide area network.

6. DOM is an acronym for _____.
a. document object model. b. document object metrics.
c. digital object model. d. digital object metrics.
7. Modem is _____.
a. Monitor b. Cable Wire
c. Modulator Demodulator d. Power supply
8. Central Processing Unit (CPU) consists of
a. control unit b. arithmetic and logic unit
c. main store d. all of above
9. Devices that accepts data from outside computer and transfer into CPU are called
a. Input device b. Output device
c. Analog device d. Digital device
10. First generation computers uses.
a. cathode ray tube. b. typewriter
c. printers. d. paper tapes.

SECTION – B

Answer any FIVE Questions : **(5 × 2 = 10)**

11. Define Microprocessor.
12. Define BIOS.
13. Write 5 Input & Output devices.
14. Define CPU.
15. Expand: FDD, HDD.

16. Write about CD.
17. Define Troubleshooting.

SECTION – C

Answer ALL Questions : **(3 × 9 = 27)**

18. a) Explain the different types of operating system?
[OR]
b) Explain about the components of Motherboard.
19. a) Explain about the computer with types.

[OR]

- b) Briefly explain about computer network with types.
20. a) Explain about the CD and DVD technology
[OR]
b) Discuss briefly about storage media in a computer system?

SECTION – D

Answer any TWO Questions : **(2 × 14 = 28)**

21. Briefly discuss about the input device and output device.
22. Discuss briefly about the memory with types.
23. Explain about the basic parts of computer with neat diagram.
24. Explain about the keyboard descriptions in a computer system?

Y Y Y Y Y

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B.Sc. Comp.Science Degree (Semester) Examinations, April 2020

Part – IV : Skill Based Subject : Sixth Semester : Paper – II

DTP

Under CBCS – Credit 2

Time: **2** HoursMax. Marks: **75****SECTION – A****Answer ALL Questions :****(10 × 1 = 10)**

1. _____ bar is used to execute basic commands such as launching bridge application, zoom in and out, minimize, maximize and close.
a) Menu b) Application c) Option d) Document
2. _____ is a place where images are edited and it is part of the screen that is printed.
a) Workspace b) Document window
c) Application bar d) Tool box
3. _____ tool is used to select the foreground or background color of an image in Photoshop CS4
a) Hand b) Eyedropper c) Move d) Type
4. _____ Palette is used to jump to any recent state of an image created during a working session.
a) Colors b) Layers c) History d) Channels
5. _____ is defined as the number of pixels per unit printed length of an image.
a) Bitmap b) Vector image c) Image resolution d) Pixel logic

6. An image saved using Photoshop has the file extension as _____.
 a) .bmp b) .wmv c) .psd d) .pdf
7. _____ Types of layers are provided in CorelDraw to organize and arrange objects in the layout.
 a) 1 b) 5 c) 2 d) 4
8. _____ displays controls such as command buttons, options and list boxes in CorelDraw X4.
 a) Color palette b) Property bar
 c) Docker d) Workspace
9. _____ Types of view modes are available in CorelDraw to view documents.
 a) 3 b) 5 c) 6 d) 2
10. _____ shows the bitmaps in monochrome black and white showing the outline of the drawing and hides the complex properties.
 a) Simple wireframe b) Draft
 c) Normal d) Enhanced

SECTION – B

Answer any FIVE Questions : **(5 × 2 = 10)**

11. List any 4 elements of the Photoshop CS4 interface?
12. What is the function of Rasterize command in Type layer in Photoshop?
13. Name any two palette types and give their uses?
14. Classify the types of option in trim commands of image editing in Photoshop?
15. Expand TIFF.

16. Name the types of Lasso tools in Photoshop CS4?
17. Give the uses of Magic Wand tool?

SECTION – C

Answer ALL Questions : **(3 × 9 = 27)**

18. a) Distinguish the characteristics of a bitmap and a vector image?

[OR]

- b) Write a note on: a) PSD b) JPEG c) PDF

19. a) Bring out the characteristics of Layers in Photoshop?

[OR]

- b) Brief a note on any 3 Selection tools in Photoshop?

20. a) Illustrate any 3 types of view modes in drawing using CorelDraw X4?

[OR]

- b) Enumerate on the steps involved in drawing a curve and calligraphic lines in CorelDraw?

SECTION – D

Answer any TWO Questions : **(2 × 14 = 28)**

21. Elucidate on the commonly used palettes in Photoshop CS4?
22. Explain in detail the types of workspaces in Photoshop CS4?
23. Enumerate on the various options available in the workspace of CorelDraw X4?
24. Explain in detail the working of objects in CorelDraw?

Y Y Y Y Y

Under CBCS – Credit 2

Max. Marks: **75**

Answer ALL Questions :

(10 × 1 = 10)

1. The keys used in cryptography are
 - a) Secret key
 - b) Private key
 - c) Public key
 - d) All of them
2. Cryptography, a word with Greek origins, means
 - a) Corrupting Data
 - b) Secret Writing
 - c) Open Writing
 - d) Closed Writing
3. An encryption algorithm transforms the plaintext into
 - a) Cipher text
 - b) Simple Text
 - c) Plain Text
 - d) Empty Text
4. Ceaser Cipher Formula_____.
 - A) $P = (P + K) \text{ MOD } 26$
 - B) $C = (C + K) \text{ MOD } 26$
 - C) $P = (P + K) \text{ MOD } 25$
 - D) $C = (P + K) \text{ MOD } 26$
5. The letters _____ and _____ count as one letter.
 - a) H, I
 - b) J, I
 - c) I, J
 - d) J, K

6. MAC Expand for _____.

- a) Message Authentication Code
- b) Message Authentication Character
- c) Message Authorized Code
- d) Message Authorized character

7. The AES was published by_____

- a) NITS b) INTS c) NIST d) ISNT

8. A digital signature needs a_____.

- a) Private-key system b) Shared-key system
- c) Public-key system d) All of them

9. The message digest needs to be_____.

- a) Public b) Private c) Kept secret d) None

10. Which is not an objective of network security?

- a) Identification b) Authentication
- c) Access control d) Lock

SECTION – B

Answer any FIVE Questions :

(5 × 2 = 10)

11. Define Encryption and Decryption?

12. What is key and its types?

13. List out the types of substitution techniques?

14. What is cryptography?

15. Write a rules for the Play-Fair Cipher?

16. Define Digital Signature?

17. What is the wireless network security?

SECTION – C

Answer ALL Questions :

(3 × 9 = 27)

18. a) Explain about the security attacks and its types?

[OR]

b) Write a short notes an OSI architecture?

19. a) Write a short notes a Classical Encryption techniques with example.

[OR]

b) Explain the Digital Signature?

20. a) Explain about the Electronic Mail Security?

[OR]

b) Discuss about the Fire walls?

SECTION – D

Answer any TWO Questions :

(2 × 14 = 28)

21. Write a Basic concept a network security?

22. Explain about the AES with neat sketch.

23. Discuss about the Message Authentication?

24. Discuss about the IP Security?

Y Y Y Y Y