VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10CC21**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**03-03-2025**	**Part:**	**III**	**Semester:**	**II**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Core Course**			
Course Title:	**DATA STRUCTURES AND ALGORITHM**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 The Postfix equivalent of the Prefix Notation * + ab - cd is **CO2**
a) ab + cd - * b) abcd +-* c) ab+cd*- d) ab+-cd*

2 The data structure required to check whether an expression contains balanced parenthesis is? **CO2**
a) queue b) stack c) linked list d) file

3 In a queue the deletion happens at the _____ end. **CO3**
a) front b) rear c) middle d) link

4 If FRONT = NULL then _____. **CO3**
a) queue full b) queue empty c) dequeue d) priority queue

5 Which of the following is NOT a common operation in a queue data structure? **CO3**
a) Enqueue b) Dequeue c) Peek d) Shuffle

6 Which of the following conditions correctly checks the underflow condition in a queue? **CO3**
a) front = -1 b) rear = 1 c) rear = size d) front = 0

7 _____ a tree means processing it in such a way that each node is visited only once. **CO3**
a) Traversing b) Implement c) Partition d) Node

8 The length of the path is the number of_____ on the path. **CO3**
a) nodes b) fields c) data d) edges

9 Which of the following is useful in traversing a given graph by Breath first search? **CO4**
a) Stack b) Set c) List d) Queue

10 A tree is a data structure which represents hierarchical relationship between individual _____ **CO4**
a) data items b) fields c) nodes d) linked list

SECTION – B (Remembering)

Answer ALL the Questions: **(5 × 2 = 10 Marks)**

11 Name the operations to add and remove a data element in a stack? **CO2**

12 Define Enqueue? **CO3**

13 List the operations of queue ADT? **CO3**

14 Define a leaf node in a tree data structure? **CO3**

15 Define a Binary tree? **CO4**

SECTION – C (Understanding)

Answer ALL the Questions: **(3 × 6 = 18 Marks)**

16 a) Write a note the operations of stack using an example? **(OR)** **CO2**
b) Discuss on the characteristics of Queue ADT? **CO2**

17 a) Differentiate between Enqueue and Dequeue? **(OR)** **CO3**
b) Brief the characteristics of circular queue? **CO3**

18 a) Brief the characteristics of Tree data structure? **(OR)** **CO3**
b) Brief the characteristics of Tree data structure? **CO3**

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 Explain in detail on the operations in Queue? **CO3**

20 Enumerate on types of searching and working of bubble sort with neat diagram? **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10GE2A**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**04-03-2025**	**Part:**	**III**	**Semester:**	**II**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Generic Elective Course**			
Course Title:	**NUMERICAL METHODS**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 EY_0=_____ **CO2**

a) Y_{-1} b) y_0 c) y_1 d) y_2

2 _____formulae used for equal interval **CO2**

a) Newton forward b) Newton backward c) Guass forward and backward d) all

3 The forward difference operator denoted by the symbol is _____. **CO3**

a) Δ b) Ω c) ∂ d) ∞

4 Newton forward interpolation formula, the first and second terms will give the _____ interpolation. **CO3**

a) Linear. b) Parabolic. c) Hyperbolic. d) Non-linear.

5 The forward difference operator denoted by the symbol is _____. **CO3**

a) delta b) nabla c) Omega d) beta

6 Trapezoidal rule is derived from _____ formula. **CO3**

a) Newton's cotes b) Newton's forward interpolation

c) Newton's backward interpolation d) Inverse Lagrange's

7 The degree of y(x) in Trapezoidal Rule is _____. **CO3**

a) 1 b) 2 c) 3 d) 6

8 Simpson's one third rule degree is _____. **CO3**

a) one b) two c) 4 d) 6

9 What is the value of factorial Zero (0!)? **CO4**

a) 0 b) 1 c) 2 d) 3

10 The order of the matrix B= [1 2 5 7] is _____. **CO4**

a) 1*1 b) 1*2 c) 1*4 d) 1*3

SECTION – B (Remembering)

Answer ALL the Questions: **(5 × 2 = 10 Marks)**

11 Define Extrapolation **CO2**

12 Write about Newton divided difference interpolation **CO3**

13 Write a formula to find U and V **CO3**

14 Define Numerical integration **CO3**

15 Write a formula of Simpson's $\frac{1}{3}$ **CO4**

SECTION – C (Understanding)

Answer ALL the Questions: **(3 × 6 = 18 Marks)**

16 a) use Lagrange's formula to find the value of y at x=6 from the following data **CO2**

X	3	7	9	10
y	168	120	72	63

(OR)

b) Find f (10) using newton's divided difference formula for the following data **CO2**

x	4	7	9	12
y	-43	83	327	1053

17 a) From the following data find x=43 **CO3**

x	40	50	60	70	80	90
y	184	204	26	25	276	304

(OR)

b) the Population of town is as follows, Estimate the at following x=1976 **CO3**

x	1941	1951	1961	1971	1981	1991
y	20	24	29	36	46	51

18 a) write a procedure to solve Newton forward and Backward interpolation formula **CO3**

(OR)

b) Find Polynomial of degree two which takes the values **CO3**

x	0	1	2	3	4	5	6	7
y	1	2	4	7	11	16	22	29

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 From the following data find x=1945 and x=1985 **CO3**

X	1941	1951	1961	1971	1981	1991
Y	2500	2800	3200	3700	4350	5225

20 Evaluate $\int_{-3}^{3} x^4 \, dx$ using Trapezoidal Rule, Simpson's $\frac{1}{3}$ and $\frac{3}{8}$ and Actual integration **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10SB21**	**Programme:**	**B.Sc. Comp. Sci**	**CIA:**	**II**
Date:	**26-02-2025**	**Part:**	**IV**	**Semester:**	**II**
Duration:	**1 Hour**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**25**
Study Component:		**Skill Enhancement Course**			
Course Title:	**OFFICE AUTOMATION**				

SECTION – A

Answer ALL the Questions: **(5 × 1 = 5 Marks)**

1 Shortcut key for Spell Checker is **CO2**

a) F3 b) F8 c) F7 d) F6

2 How to use the headers and footers in document page **CO2**

a) Insert → Headers and Footers b) View → Headers and Footers

c) Design → Headers and Footers d) Review → Headers and Footers

3 How to add a Table in word document **CO2**

a) Insert → Table b) ctrl+T c) Both d) None of these

4 How to add two numbers in Excel using formula **CO3**

a) =SUM(A1+B1) b) =SUM (A1:B1) c) =SUM (A1; B1) d) =SUM (A1, B1)

5 Select the entire row in spreadsheet **CO3**

a) ctrl+tab b) ctrl+space c) shift+space d) shift+tab

SECTION – B

Answer ALL the Questions: **(2 × 2 = 4 Marks)**

6 Define Document Formatting? **CO2**

7 Creating a spreadsheet for 3student's odd semester marksheet? **CO3**

SECTION – C

Answer ALL the Question: **(1 × 6 = 6 Marks)**

8 a) Creating a spreadsheet for five person's purchase list of sports goods using formulas? **CO3**

(OR)

b) Explain various types charts with example? **CO3**

SECTION – D

Answer any ONE Question: **(1 × 10 = 10 Marks)**

9 Explain about a spreadsheet about how to insert, delete, merge, add and remove (row column), split cells, insert (pic, chart), formatting cells? **CO3**

10 Creating a Presentation for generating a movie concept using video merging, inserting pictures like a project? **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10SE21**	**Programme:**	**B.A. / B.Sc. / B.Com. / B.Com. (CA)**	**CIA:**	**II**
Date:	**04-03-2025**	**Part:**	**IV**	**Semester:**	**II**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Skill Enhancement Course (NME)**			
Course Title:	**INTRODUCTION TO HTML**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 What does HTML stand for? **CO1**
a) Hyper Trainer Marking Language b) Hypertext Marketing Language
c) Hypertext Markup Language d) Hyperlink and Text Markup Language

2 Which tag is used to create a hyperlink in HTML? **CO1**
a) <link> b) <a> c) <href> d) <hyperlink>

3 What is the correct HTML element for inserting a line break? **CO1**
a) <break> b)
 c) <lb> d) <new line>

4 Which of the following is used to define an ordered list in HTML? **CO2**
a) b) c) d) <dl>

5 How can you make text bold in HTML? **CO2**
a) b) <b> c) both d) <bold>

6 Which tag is used to insert an image in HTML? **CO2**
a) <image> b) <img> c) <src> d) <picture>

7 What is the correct way to add a background color in HTML? **CO3**
a) <body bg= "yellow"> b) <background>yellow</background-color: yellow;">
c) <body style=" background-color: yellow;"> d) <bgcolor>yellow</bgcolor>

8 Which tag is used to create a table in HTML? **CO3**
a) <table> b) <tbl> c) <tr> d) <td>

9 What is the purpose of the <head> tag in HTML? **CO3**
a) It contains the main content of the webpage b) It contains metadata, title, and links to stylesheets.
c) It defines the footer of the webpage. d) It is used to display headings

10 Which tag is used to create a dropdown list in HTML? **CO3**
a) <dropdown> b) <select> c) <list> d) <option>

SECTION – B (Remembering)

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

11 What is HTML? **CO1**

12 What is the purpose of the <head> tag in HTML? **CO1**

13 What is the difference between and tags in HTML? **CO2**

14 What is an attribute in HTML? Give an example **CO2**

15 What is the difference between the <ul> and <ol> tags in HTML? **CO3**

SECTION – C (Understanding)

Answer any THREE Questions: **(3 × 6 = 18 Marks)**

16 a) Explain Internet and web browsers? **(OR)** **CO1**
b) Explain using Web basics in HTML?

17 a) Create a HTML program for using Font styles? **(OR)** **CO2**
b) Create a HTML program using paragraph and break tag.

18 a) Create a HTML program using Ordered List. **(OR)** **CO3**
b) Explain in detail about Unordered List.

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 Explain any 10 basic tag and their functions? With suitable example. **CO1**

20 Create a program using Header and Title tag. **CO2**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10CC41**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**03-03-2025**	**Part:**	**III**	**Semester:**	**IV**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Core Course**			
Course Title:	**JAVA PROGRAMMING**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 Which keyword is used to inherit a class in Java? **CO2**
a) implements b) extends c) inherits d) super

2 Which access modifier allows a member to be accessed from any other class? **CO2**
a) private b) protected c) default d) public

3 Which keyword is used to define an interface in Java? **CO3**
a) interface b) abstract c) implements d) extends

4 What is the default package in Java? **CO3**
a) java.lang b) java.util c) The unnamed package d) java.base

5 Which package contains the basic classes for input/output (I/O) in Java? **CO3**
a) java.io b) java.net c) java.util d) java.awt

6 Which package contains classes for networking functionality in Java? **CO3**
a) java.awt b) java.net c) java.io d) java.sql

7 The java.math package is primarily used for which purpose? **CO3**
a) File handling b) Network communication
c) Mathematical operations d) Database connectivity

8 Which of the following methods from the System class is used to copy data from one location to another in memory? **CO3**
a) System.arraycopy() b) System.clone() c) System.copy() d) System.transfer()

9 What is a thread in Java? **CO4**
a) A unit of memory b) A unit of CPU execution
c) A unit of network communication d) A class for file handling

10 Which method is used to pause a thread's execution for a specified amount of time in Java? **CO4**
a) wait() b) sleep() c) pause() d) block()

SECTION – B (Remembering)

Answer ALL the Questions: **(5 × 2 = 10 Marks)**

11 Define Class. **CO2**

12 Define Interface. **CO3**

13 Write the syntax of Interface. **CO3**

14 What is Package? **CO3**

15 Define Thread. **CO4**

SECTION – C (Understanding)

Answer ALL the Questions: **(3 × 6 = 18 Marks)**

16 a) Explain about the Inheritance and its types. **(OR)** **CO2**
b) Write a simple java program using class, object and Methods. **CO2**

17 a) Explain about the Interface with example. **(OR)** **CO3**
b) Discuss about the implementation of Interface. **CO3**

18 a) Write about the types of package. **(OR)** **CO3**
b) How to create the package with example. **CO3**

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 Explain about the Package with example **CO3**

20 Briefly explain the Life cycle of Thread. **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10GE4A**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**04-03-2025**	**Part:**	**III**	**Semester:**	**IV**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Generic Elective Course**			
Course Title:	**RESOURCE MANAGEMENT TECHNIQUES**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 Graphical optimal value for Z can be obtained from **CO2**

a) Corner points of feasible region b) corner points of the solution region

c) Both a and c d) none of the above

2 Feasible solution satisfies _____ **CO2**

a) Only constraints b) only non-negative restriction

c) [a] and [b] both d) [a],[b] and Optimum solution

3 In the simplex method for solving of LPP number of variables can be _____. **CO3**

a) Not more than three b) at least three c) at least two d) none of them

4 For the constraint of greater than equal to type we make use of _____ variable. **CO3**

a) slack b) surplus c) artificial d) basic

5 In linear programming, most popular non-graphical procedure is classified as **CO3**

a) linear procedure b) non-graphical procedure c) graphical procedure d) simplex method

6 Linear programming involves more than two variables can be solved by **CO3**

a) simplex method b) Big-M method c) both d) graphical Method

7 Which of the following is a valid objective function for a linear programming problem? **CO3**

a) Max = 5xy b) Min= 4x + 3y + 2z c) Max=5x 2 + 6y 2 d) Min (x1 + x2)/x 3

8 If an artificial variable is present in the basic variable column of optimal simplex table, Then the solution is **CO3**

a) unbounded b) infeasible c) optimal d) None of these

9 The initial solution to a transportation problem can be generated in any manner, so long as **CO4**

a) it minimizes cost b) all supply and demand are satisfied

c) degeneracy does not exist d) all cells are filled

10 The maximization or minimization of a quantity is the **CO4**

a) goal of management science. b) decision for decision analysis.

c) constraint of operations research. d) objective of linear programming.

SECTION – B (Remembering)

Answer ALL the Questions: **(5 × 2 = 10 Marks)**

11 Write about LPP **CO2**

12 Define Surplus variable with Example **CO3**

13 Define Slack variable with Example **CO3**

14 What you mean by unbounded solution in graphical method **CO3**

15 Define Transportation Problem **CO4**

SECTION – C (Understanding)

Answer ALL the Questions: **(3 × 6 = 18 Marks)**

16 a) Write Procedure to solve the graphical method **CO1**

(OR)

b) Apply graphical method for the following LPP **CO1**

$Max\ z = 100x_1 + 40x_2\ subject\ to\ 5x_1 + 2x_2 \leq 1000, 3x_1 + 2x_2 \leq 900, x_1 + 2x_2 \leq 500\ and\ x_1, x_2 \geq 0$

17 a) Write steps to solve Simplex Method **CO3**

(OR)

b) Solve the following the LPP using Simplex method $Min\ z = 8x_1 - 2x_2\ subject\ to$ $-4x_1 + 2x_2 \leq 1, 5x_1 - 4x_2 \leq 3\ and\ x_1, x_2 \geq 0$ **CO3**

18 a) write the procedure on standard form and Express the following LPP in Standard form **CO3**

$Max\ z = 4x_1 + 2x_2 + 6x_3\ subject\ to\ 2x_1 + 3x_2 + 2x_3 \geq 6, 3x_1 + 4x_2 = 8, 6x_1 - 4x_2 + x_3 \leq 10\ and\ x_1, x_2 and\ x_3 \geq 0$

(OR)

b) Write the procedure of Canonical for and Express the following LPP in Canonical form **CO3**

$Max\ z = 4x_1 + 2x_2 + 6x_3\ subject\ to\ 2x_1 + 3x_2 + 2x_3 \geq 6, 3x_1 + 4x_2 = 8, 6x_1 - 4x_2 + x_3 \leq 10\ and\ x_1, x_2 and\ x_3 \geq 0$

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 Solve the following the LPP using Simplex method **CO3**

$Max\ z = 3x_1 + 2x_2 + 5x_3\ subject\ to\ x_1 + 4x_2 \leq 420, 3x_1 + 2x_3 \leq 460, x_1 + 2x_2 + x_3 \leq 430\ and\ x_1, x_2 and\ x_3 \geq 0$

20 Write the procedure to IBFS of North-West Corner Rule and find IBFS of Transportation Problem **CO4**

North-West Corner Rule

	D	**E**	**F**	**G**	**AVAILABLE**
A	11	13	17	14	250
B	16	18	14	10	300
C	21	24	13	10	400
REQUIREMENT	200	225	275	250	

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10SB42**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**26-02-2025**	**Part:**	**IV**	**Semester:**	**IV**
Duration:	**1 Hour**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**25**
Study Component:		**Skill Enhancement Course**			
Course Title:	**QUANTITATIVE APTITUDE**				

SECTION – A

Answer ALL the Questions: **(5 × 1 = 5 Marks)**

1 The value of $(256)^{5/4}$ is: **CO2**

a) 512 b) 984 c) 1024 d) 1032

2 The ratio 5:4 expressed as a percent equals: **CO2**

a) 12.5% b) 40% c) 80% d) 125%

3 A does a work in 10 days and B does the same work in 15 days. In how many days they together will do the same work? **CO3**

a) 5 days b) 6 days c) 8 days d) 9 days

4 A train moves with a speed of 106 kmph. Its speed in meters per second is: **CO3**

a) 10.8 b) 18 c) 30 d) 38.8

5 At the rate of 8*1/2% p.a. simple interest, a sum of Rs. 4800 will earn how much interest in 2 years 3 months? **CO3**

a) Rs. 796 b) Rs. 816 c) Rs. 918 d) Rs. 956

SECTION – B

Answer ALL the Questions: **(2 × 2 = 4 Marks)**

6 A, B and C started a business by investing Rs. 1,20,000, Rs. 1,35,000 and Rs.1,50,000 respectively. Find the share of each, out of an annual profit of Rs. 56,700. **CO2**

7 A train 100 m long is running at the speed of 30 km/hr. Find the time taken by it to pass a man standing near the railway line. **CO3**

SECTION – C

Answer ALL the Question: **(1 × 6 = 6 Marks)**

8 a) i) The population of a town is 1,76,000. If it increases at the rate of 5% per annum, what will be its population 2years hence? What was it 2 years ago? **CO3**

ii) The value of a machine depreciates at the rate of 10% per annum. If its present value is Rs.1,62,000, what will be its worth after 2 years? What was the value of the machine 2 years ago

(OR)

b) Find compound interest on Rs.8000 at 15% per annum for 2 years 4 months, compounded annually?

SECTION – D

Answer any ONE Question: **(1 × 10 = 10 Marks)**

9 Find the Slant height, volume, curved surface area and the whole surface area of a cone of radius 21cm and height 28cm? **CO2**

10 a) An article is sold at a certain price. By selling it at 2/3 of that price one loses 10%. Find the gain percent at original price? **CO3**

b) A dealer sold three-fourth of his articles at a gain of 20% and the remaining at cost price. Find the gain earned by him in the whole transaction?

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**ESUG41**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**04-03-2025**	**Part:**	**IV**	**Semester:**	**IV**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**ES**			
Course Title:	**ENVIRONMENTAL STUDIES**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 World population day is celebrated on **CO1**
a) March 21 b) April 22 c) July 11 d) September 28

2 Eco Mark of Country is **CO1**
a) Earthern mug b) Earthern pitcher c) Earthern saucer d) Earthern lamp

3 September 16-23 is observed as **CO1**
a) Ozone week b) wildlife week c) Biodiversity week d) Disaster reduction week

4 During photosynthesis trees produce **CO2**
a) oxygen b) CO_2 c) N_2 d) CO

5 Deforestration rate alarming **CO2**
a) Temperature countries b) Tropical countries c) polar region d) None of the above

6 Nuclear Energy can be generated by **CO2**
a) Nuclear Fusion b) Nuclear Fission c) both a and b d) none

7 Gross primary product is highest in **CO3**
a) open oceans b) Grass lands c) Wet Trophical forest d) Agroecosystem

8 The term eco system coined by **CO3**
a) Transley b) Charles Babbage c) Charles Tarvin d) Ada

9 The organisms which feed on dead organisms, wastes of living organisms are called **CO3**
a) chemotrophes b) carnivores c) Detrivores d) Decomposer

10 Estuaries have the following characteristics **CO3**
a) Fresh and Salt water b) Rich Bio Diversity c) Forest d) high Productivity

SECTION – B (Remembering)

Answer ALL the Questions: **(5 × 2 = 10 Marks)**

11 Define Environment **CO1**

12 Expand i) IUCN ii) UNEP **CO1**

13 Name any four renewable energies **CO2**

14 Name any four non-renewable energies **CO2**

15 Define Ecology **CO3**

SECTION – C (Understanding)

Answer ALL the Questions: **(3 × 6 = 18 Marks)**

16 a) What is the scope of Environmental Studies. **(OR)** **CO1**
b) Write short notes about Nature. **CO1**

17 a) Discuss about Major causes of deforestation. **(OR)** **CO2**
b) Write about Biotic and Abiotic with example. **CO2**

18 a) Discuss about consumer and its types. **(OR)** **CO3**
b) Discuss about types of food chain. **CO3**

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

19 Write about Benefits of Environmental Education **CO1**

20 Discuss about Renewable alternate energy resources **CO2**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10CT61**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**03-03-2025**	**Part:**	**III**	**Semester:**	**VI**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Core Course**			
Course Title:	**WEB PROGRAMMING**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 Inside which HTML element do we put the JavaScript? **CO2**
a) <scripting> b) <script> c) <javascript> d) <js>

2 What is the correct syntax for referring to an external script called "xxx.js"? **CO2**
a) <script name="xxx.js"> b) <script src="xxx.js"> c) <script href="xxx.js"> d) <script type="xxx.js">

3 How do you write "Hello World" in an alert box? **CO2**
a) alertBox("Hello World"); b) msg("Hello World"); c) alert("Hello World"); d) msgBox("Hello World");

4 Moving from one website to another is called _____ **CO2**
a) transferring b) shifting c) browsing d) loading

5 How do you declare a JavaScript variable? **CO3**
a) var carName; b) variable carName; c) v carName; d) var acar name;

6 Which operator is used to assign a value to a variable? **CO3**
a) * b) = c) x d) –

7 Who is making the Web standards? **CO3**
a) The World Wide Web Consortium b) Google c) Mozilla d) Microsoft

8 What does "JS" stand for in JavaScript? **CO3**
a) Java Standard b) JavaScript c) Just Script d) Java Syntax

9 How do you declare a multi-line comment in JavaScript? **CO3**
a) // comment b) /* comment */ c) -- comment d) ' comment '

10 Who is the father of PHP? **CO4**
a) Rasmus Lerdorf b) Willam Makepiece c) Drek Kolkevi d) List Barely

SECTION – B (Remembering)

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

11 Define Java Script **CO2**
12 List out the advantages of Java Script **CO2**
13 Difference between Java and Java Script **CO2**
14 Write about the DOM **CO3**
15 Define Event Handling **CO3**
16 Write about Cookies **CO3**
17 Define PHP. **CO4**

SECTION – C (Understanding)

Answer any THREE Questions: **(3 × 6 = 18 Marks)**

18 Explain about the JavaScript Syntax with example **CO2**
19 Explain about the Datatype, Variable and Function in JavaScript **CO3**
20 Illustrate the concept of Event Handling with example **CO3**
21 Demonstrate the DOM in JavaScript **CO3**
22 Write notes on Cookies in JavaScript **CO3**

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

23 Illustrate the Browser and Form Object in Java Script **CO3**
24 Discuss about the Basic of PHP, Datatypes and Variables with example **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10DS6A**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**04-03-2025**	**Part:**	**III**	**Semester:**	**IV**
Duration:	**2 Hours**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**50**
Study Component:		**Discipline Specific Elective**			
Course Title:	**FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE**				

SECTION – A (Remembering)

Answer ALL the Questions: **(10 × 1 = 10 Marks)**

1 Select the most appropriate situation for that a blind search can be used. **CO2**
a) Real-life situation b) Small Search Space c) Complex game d) All of the above

2 The maximum depth to which the alpha-beta pruning can be applied. **CO2**
a) Eight states b) Six states c) Ten states d) Any depth

3 Which process makes two different Logical expressions look identical? **CO2**
a) Unification b) Lifting c) Inference Process d) Decomposition

4 An Algorithm is said as Complete algorithm if_____ **CO2**
a) It ends with a solution b) It begins with a solution
c) It does not end with a solution. d) It contains a loop

5 Which term describes the common-sense of the judgmental part of problem-solving? **CO3**
a) Values-based b) Critical c) Analytical d) Heuristic

6 Web Crawler is a /an _____ **CO3**
a) Intelligent goal-based agent b) Problem-solving agent
c) Simple reflex agent d) Model based agent

7 Backtracking is based on _____ **CO3**
a) Last in first out b) First in first out
c) Recursion d) Both Last in first out & Recursion

8 How many possible sources of complexity are there in forward chaining? **CO3**
a) 1 b) 2 c) 3 d) 4

9 PROLOG is an AI programming language which solves problems with a form of symbolic logic known as predicate calculus. **CO3**
a) Alain Colmerauer b) Niklaus Wirth c) Seymour Papert d) John McCarthy

10 Reinforcement learning is a _____ **CO4**
a) Prediction-based b) feedback based c) History results-based d) web based

SECTION – B (Remembering)

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

11 Give the operations of knowledge based agents? **CO2**
12 List the parts of knowledge based agents? **CO2**
13 Give the approaches to build a knowledge based agent? **CO2**
14 List the kinds of knowledge to be represented in a KBA? **CO3**
15 Define the term knowledgebase? **CO3**
16 List the components in the AI knowledge cycle? **CO3**
17 Distinguish declarative knowledge and procedural knowledge? **CO4**

SECTION – C (Understanding)

Answer any THREE Questions: **(3 × 6 = 18 Marks)**

18 Discuss about the characteristics of alpha-beta pruning? **CO2**
19 Brief a note on various knowledge levels in a KBA? **CO3**
20 Write a brief note on logical representation of knowledge representation? **CO3**
21 Brief a note on any one approach for knowledge representation? **CO3**
22 Summarize on the requirements of a good knowledge representation system? **CO3**

SECTION – D (Applying)

Answer any ONE Question: **(1 × 12 = 12 Marks)**

23 Elaborate on the First Order Logic knowledge representation and its components? **CO3**
24 Explain in detail Learning and forms of learning? **CO4**

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VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST – 625 234

DEPARTMENT OF COMPUTER SCIENCE

Course Code:	**10SE62**	**Programme:**	**B.Sc. Comp. Sci.**	**CIA:**	**II**
Date:	**24-02-2025**	**Part:**	**IV**	**Semester:**	**VI**
Duration:	**1 Hour**	**Academic Year:**	**2024 – 2025**	**Max. Marks:**	**25**
Study Component:		**Skill Enhancement Course**			
Course Title:	**PROFESSIONAL ETHICS FOR COMPUTER SCIENCE**				

SECTION – A

Answer ALL the Questions: **(5 × 1 = 5 Marks)**

1 _____ refers to the relationship between humans and machines **CO2**

a) Machine-Man interaction b) Man-Machine interaction

c) Humanoid interaction d) Machine interaction

2 Prolonged use of machines can cause which type of injuries **CO2**

a) strain injuries b) programming injuries c) hardware injuries d) Repetitive strain injuries

3 What type of technology is used to designing and developing human priorities? **CO2**

a) Human centered technology b) User centered technology

c) Application oriented technology d) Designing and Developing technology

4 Why countries are investing in cyber defense and offensive capabilities **CO3**

a) National securities b) cyber warfare c) both d) None of these

5 Sustainable sourcing of raw materials in social and ethical audit for which purpose **CO3**

a) Environmental Responsibilities b) Global welfare

c) both d) None of these

SECTION – B

Answer any TWO Questions: **(2 × 2 = 4 Marks)**

6 What are the merits and demerits of Problems of technology transfer? **CO2**

7 Define Technology. **CO2**

8 List out the types of Politics and Technology **CO3**

9 What do you know about Social and Ethical audit of industrial organization? **CO3**

SECTION – C

Answer any ONE Question: **(1 × 6 = 6 Marks)**

10 Explain the Problems of Man-Machine interaction **CO2**

11 What is Politics and Technology and its various applications? **CO2**

SECTION – D

Answer any ONE Question: **(1 × 10 = 10 Marks)**

12 Explain in detail about Problems of Technology transfer? **CO2**

13 Explain Impact of assembly line, automation of technology and developing nations **CO3**

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