

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

Course Code:	10SE31	Programme:	B.Sc. Computer Science	CIA:	I
Date:	10.10.2022	Part:	IV	Semester:	III
Duration:	1 Hour	Academic Year:	2022-23	Max. Marks:	25
Study Component:	Skill Enhancement Course				
Course Title:	OPERATING SYSTEMS				

SECTION – A

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

- 1 USB-type storage device is - CO2
 A) Secondary B) Axillary C) Tertiary D) Primary
- 2 Which device is used to back up the data? CO2
 A) Floppy Disk B) Tape C) Network Drive. D) All of the above
- 3 What is computer memory? CO2
 A. device used to store information in computer
 B. device to print output to screen
 C. device to process data
 D. None of these
- 4 Which of these is a storage device? CO2
 A. CD ROM B. Resistor C. Cache Memory D. All of these
- 5 Which of these are considered as primary memory? CO2
 A. RAM
 B. ROM
 C. Cache
 D. Both A and B

SECTION – B

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

- 6 Define multiprogramming CO2
- 7 Define multiprocessing CO2
- 8 Give purpose of RAM CO2
- 9 List out any two purpose of ROM CO2

SECTION – C

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

- 10 Write about single contiguous memory allocation CO2
- 11 Explain about partitioned memory allocation CO2

SECTION – D

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

- 12 Explain about paging CO2
- 13 Write short notes on relocatable portioned memory allocation CO2

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Course Code:	10AE11	Programme:	B.Sc. Computer Science	CIA:	II
Date:	15.10.2022	Part:	III	Semester:	I
Duration:	2 Hours	Academic Year:	2022-2023	Max. Marks:	50
Study Component:	Ability Enhancement Course				
Course Title:	DISCRETE MATHEMATICS				

SECTION – A (Remembering)

Answer **ALL** the Questions:

(10 X 1 = 10 Marks)

- 1 $(A^T)^T =$ _____ CO2
 a) A b) Unit c) Zero d) none
- 2 If $A^2 = A$, then the matrix A is _____. CO2
 a) Idempotent b) Involutory c) square d) none
- 3 _____ states that every square matrix satisfies its own characteristic equation CO2
 a) CH theorem b) linear algebra c) square matrix d) none
- 4 _____ are the special set of scalar values that is associated with the set of linear equations most probably in the matrix equations CO2
 a) Eigenvalues b) CH Theorem c) Vector d) zero vector
- 5 Each loop counting has _____ edges. CO5
 a) 1 b) 2 c) 3 d) 4
- 6 An edge with identical ends is called _____. CO5
 a) complete graph b) bipartite graph c) loops d) link
- 7 An edge with same ends is called _____. CO5
 a) complete graph b) bipartite graph c) loops d) link
- 8 Any vertex having degree one is called _____. CO5
 a) Simple vertex b) pendent vertex c) regular vertex d) complete vertex
- 9 An edge of a graph is said to be _____ if one of its vertices is a _____ vertex. CO5
 a) Pendant b) regular c) complete d) simple
- 10 An empty set is denoted by _____. CO1
 a) Null b) {} c) a & b d) none

SECTION – B (Remembering)

Answer any **FIVE** Questions:

(5 X 2 = 10 Marks)

- 11 Define Eigen values CO2
- 12 Define CH Theorem CO2
- 13 List out the types of Matrix CO2
- 14 Define Graphs CO5
- 15 Define Trees CO5
- 16 Define simple graph CO5
- 17 Define set CO1

SECTION – C (Understanding)

Answer any **THREE** Questions:

(3 X 6= 18 Marks)

- 18 Write about i) Square matrix ii) Null Matrix iii) Zero Matrix CO2
- 19 Convert infix into postfix $x^y/(5*z)+2$ CO5
- 20 Write about i) Simple graph ii) complete graph iii) directed graph CO5
- 21 Explain about infix, prefix and postfix CO5
- 22 Draw the recursive tree for merge sort of the list 9,7,11,4,5,3,6,8,12,10 CO5

SECTION – D (Applying)

Answer any **ONE** Question:

(1X 12= 12 Marks)

- 23 Explain about Tree Traversals with example CO5
- 24 Let $U=\{1,2,3\dots 10\}$ $A=\{1,2,3,4,5,6\}$, $B=\{4,5,7,8,2\}$, $C=\{2,3,5,6,7\}$ Verify De Morgan's law CO1

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DEPARTMENT OF COMPUTER SCIENCE



Course Code:	10AE31	Programme:	B.Sc. Computer Science	CIA:	II
Date:	15.10.2022	Part:	III	Semester:	III
Duration:	2 Hours	Academic Year:	2022-23	Max. Marks:	50
Study Component:	Ability Enhancement Course				
Course Title:	OPERATIONS RESEARCH				

SECTION – A (Remembering)

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

- 1 The basic solution is said to be _____ if no one of basic variable is zero **CO3**
A) non-denerate B) feasible C) denenerate D) non-feasible
- 2 The objective function for a L.P model is $3X_1 + 2X_2$, if $X_1 = 20$ and $X_2 = 30$, what is the value of the objective function? **CO3**
A) 0 B) 50 C) 60 D) 120
- 3 In simplex optimal table $z_j - c_j > 0$ then the solution is **CO3**
A) optimal B) alternative solution C) unbounded solution D) none
- 4 In simplex optimal table $z_j - c_j < 0$ then the solution is **CO3**
A) optimal B) unfeasible solution C) unbounded solution D) none
- 5 Slack variable adds for **CO3**
a) \leq b) \geq c) \neq d) $=$
- 6 the penalty in VAM represents difference between _____ costs of respective Row / column. **CO5**
a. Two largest b. Smallest two c. Largest and smallest d. None of them
- 7 If $x_1 = 10$, $x_2 = 15$ $Max Z = 3X_1 + 2X_2$ **CO5**
a) 60 b) 50 c) 70 d) 0
- 8 The transportation problem is special case of **CO5**
a) Assignment b) LPP c) graphical d) none
- 9 north – west corner refers to _____. **CO5**
a) Top left corner b) Top right corner c) Both of them d) none
- 10 Artificial variable added for **CO2**
a) \geq and \leq b) \leq and \neq c) \geq and $=$ d) none

SECTION – B (Remembering)

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

- 11 Define Simplex method **CO3**
- 12 How you find unbounded solution in simplex method? **CO3**
- 13 What is mean by Maximization in Transportation problem? **CO5**
- 14 How to solve if $m+n-1 <$ allocated zero's in TP **CO5**
- 15 List out findings IBFS in transportation Problem **CO5**
- 16 Define surplus variable **CO3**
- 17 Define Psuedo solution in Big-M **CO2**

SECTION – C (Understanding)

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

- 18 Explain the characteristics of standard form and **CO3**
Express the following LPP in Standard form and Matrix form $Max Z = 4x_1 + 2x_2 + 6x_3$
Subject to $2x_1 + 3x_2 + 2x_3 \geq 6$, $3x_1 + 4x_2 = 8$, $6x_1 - 4x_2 + x_3 \leq 10$ and $x_1, x_2, x_3 \geq 0$
- 19 Use Simplex method to solve the LPP $Min Z = 8x_1 - 2x_2$ **Subject to** $-4x_1 + 2x_2 \leq 1$, **CO3**
 $5x_1 - 4x_2 \leq 3$ and $x_1, x_2 \geq 0$
- 20 Use Simplex method to solve the LPP $Max Z = 3x_1 + 2x_2 + 5x_3$ **Subject to** $x_1 + 4x_2 \leq 420$, **CO3**
 $3x_1 + 2x_3 \leq 460$, $x_1 + 2x_2 + x_3 \leq 430$ and $x_1, x_2, x_3 \geq 0$

- 21 Explain the characteristics of canonical form and express the following LPP in canonical for CO3
Min $Z = 3x_1 + 2x_2 + 5x_3$ Subject to $x_1 + 4x_2 + x_3 \leq 40$,
 $3x_1 + 2x_3 \leq 460$, $x_1 + 2x_2 + x_3 \leq 40$ and $x_1, x_2, x_3 \geq 0$
- 22 Find IBFS using VAM method CO5

		DESTINATION				SUPPLY
		A	B	C	D	
SOURCE	s	11	20	7	8	50
	s	21	16	20	12	40
	s	8	12	18	9	70
DEMAND		30	25	35	40	

SECTION – D (Applying)

Answer any **ONE** Question:

(1X 12= 12 Marks)

- 23 Use Simplex method to solve the LPP **Max $Z = 4x_1 + 10x_2$ Subject to $2x_1 + x_2 \leq 50$,** CO3
 $2x_1 + 5x_2 \leq 100$, $2x_1 + 3x_2 \leq 90$ and $x_1, x_2 \geq 0$
- 24 Write simplex and Big -M procedure and its Algorithms CO2

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

Course Code:	10CT11	Programme:	B.Sc Computer Science	CIA:	II
Date:	11.10.2022	Part:	III	Semester:	I
Duration:	2 Hours	Academic Year:	2022-23	Max. Marks:	50
Study Component:	Core Course				
Course Title:	PROGRAMMING IN C				

SECTION – A (Remembering)Answer **ALL** the Questions:**(10 X 1 = 10 Marks)**

- 1 A Character arrays always end with CO2
a) null(0) character b) cahr c) string d) terminator
- 2 Which header file is essential for gets function CO2
a) stdio.h b) conio.h c) string.h d) null.h
- 3 Array is collection of CO2
a) same datatype b) different datatype c) both d) number
- 4 Strcat has _____ parameters CO2
a)1 b) 2 c)3 d) 4
- 5 If 'a'+ 1 answer is CO2
a) 97 b) b c) d d) none
- 6 If str1 + str2 means CO2
a) combines two string b) add a value c) both d) none
- 7 strlen("string") returns CO2
a) 6 b) 5 c) 7 d) 0
- 8 Calling function always end with CO3
a); b) : c) , d) ‘
- 9 Function parameters separated by CO3
a), b) : c) ; d) .
- 10 Goto label must end with CO4
a): b); c) , d) .

SECTION – B (Remembering)Answer any **FIVE** Questions:**(5 X 2 = 10 Marks)**

- 11 Define Function CO3
- 12 How to declare a string CO2
- 13 How many values the following arrays a[5][5] can stores? CO2
- 14 Write short notes on break statement CO4
- 15 Define getchar function CO3
- 16 Define putchar function CO3
- 17 If char str[15]="goodmorning" what will be the output for printf("%4s",str); CO3

SECTION – C (Understanding)Answer any **THREE** Questions:**(3 X 6= 18 Marks)**

- 18 Write short notes on gets with example CO3
- 19 Write short notes on puts with example CO3
- 20 Explain about Two dimensional array with example CO2
- 21 Write a C program for multiplication table CO2
- 22 List out advantages of user defined function CO3

SECTION – D (Applying)Answer any **ONE** Question:**(1X 12= 12 Marks)**

- 23 Explain string function with example CO2
- 24 Explain in detail how to declare, definition and call a function with example CO3

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

Course Code:	10CT12	Programme:	B.Sc. Computer Science	CIA:	II
Date:	14.10.2022	Part:	III	Semester:	I
Duration:	2 Hours	Academic Year:	2022 - 23	Max. Marks:	50
Study Component:	Core Course				
Course Title:	DIGITAL PRINCIPLES AND COMPUTER ORGANIZATION				

SECTION – A (Remembering)Answer **ALL** the Questions:**(10 X 1 = 10 Marks)**

- 1 In 1-to-4 demultiplexer, how many select lines are required? **CO2**
a) 2 b) 3 c) 4 d) 5
- 2 The word de-multiplex means **CO2**
a) One into many b) Many into one c) Distributor d) One into many as well as Distributor
- 3 If the number of n selected input lines is equal to 2^m then it requires _____ select lines. **CO2**
a) 2 b) m c) n d) 2n
- 4 How many NOT gates are required for the construction of a 4-to-1 multiplexer? **CO2**
a) 3 b) 4 c) 2 d) 5
- 5 How many AND gates are required for a 8 to 1 multiplexer? **CO3**
a) 2 b) 6 c) 4 d) 5
- 6 When both inputs of a J-K flip-flop cycle, the output will _____ **CO3**
a) be invalid b) Change c) Not change d) Toggle
- 7 Which of the following is the Universal Flip-flop? **CO3**
a) S-R flip-flop b) J-K flip-flop c) T flip-flop d) D Flip-flop
- 8 In D flip-flop, D stands for **CO3**
a) Distant b) Delay c) Desired d) Data
- 9 Input clock of RS flip-flop is given to **CO3**
a) Input b) Pulser c) Output d) Changes
- 10 Which memory device is generally made of semiconductors? **CO4**
a) RAM b) Hard-disk c) Floppy disk d) Cd disk

SECTION – B (Remembering)Answer any **FIVE** Questions:**(5 X 2 = 10 Marks)**

- 11 List the types of multiplexers. **CO2**
- 12 Give the types of de-multiplexers. **CO2**
- 13 Define encoders. **CO2**
- 14 Define flip flop. **CO3**
- 15 List the basic types of flip flops **CO3**
- 16 What does “J” and “K” stands for in JK flip flop? **CO3**
- 17 What is a program counter? **CO4**

SECTION – C (Understanding)Answer any **THREE** Questions:**(3 X 6= 18 Marks)**

- 18 Brief a note on 1 to 4 Multiplexer? **CO2**
- 19 Discuss about the Decimal to Binary encoder **CO3**
- 20 Describe the RS flip flop with a neat circuit diagram **CO3**
- 21 Write note on types of shift registers? **CO3**
- 22 Discuss on the RS flip flop with a neat circuit diagram? **CO3**

SECTION – D (Applying)Answer any **ONE** Question:**(1X 12= 12 Marks)**

- 23 Explain the types of flip flops. **CO3**
- 24 Explain the functional units of a computer? **CO4**

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DEPARTMENT OF COMPUTER SCIENCE

	Course Code:	10CT31	Programme:	B.Sc. Computer Science	CIA:	II
	Date:	11.10.2022	Part:	III	Semester:	III
	Duration:	2 Hours	Academic Year:	2022 - 23	Max. Marks:	50
	Study Component:	Core Course				
	Course Title:	COMPUTER NETWORKS				

SECTION – A (Remembering)

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

- 1 Gateway allows devices on one network to _____ with devices on another network? **CO2**
A. Decode B. Communicate C. Convert D. Separate
- 2 Which one of the following is a data link protocol? **CO2**
A. Ethernet B. point to point protocol C. HDLC D. all the above
- 3 Which of the following is used for modulation and demodulation? **CO2**
A. Modem B. Protocols C. Gateway D. Multiplexer.
- 4 A software that allows a personal computer to pretend it as a terminal is _____ **CO2**
A. auto dialing B. bulletin board C. modem D. terminal emulation.
- 5 The Primary part of the network built under water using sensor nodes is referred as **CO3**
A. Underwater Sensor Networks B. Underwater Node Networks
C. Water Networks D. Sensor Networks
- 6 M In OSI network architecture the dialogue control and token management are responsibilities of _____ **CO3**
A. session layer B. network layer C. transport layer D. data link layer.
- 7 M Which one of the following is not a function of network layer? **CO3**
A. routing B. inter-networking C. congestion control D. none of the above
- 8 The third layer of OSI model is _____ **CO3**
A. physical layer B. data link layer C. network layer D. transport layer
- 9 What is the minimum number of wires needed to send data over a serial communication Linklayer? **CO3**
A. 1 B. 2 C. 4 D. 6
- 10 The amount of uncertainty in a system of symbol is called _____ **CO4**
A. bandwidth B. entropy C. loss D. Quantum

SECTION – B (Remembering)

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

- 11 Define Physical layer. **CO2**
- 12 What is switching? **CO2**
- 13 What are the Types of Multiplexing **CO2**
- 14 Abbreviate : SMTP , GPS **CO3**
- 15 Define data link layer **CO3**
- 16 What is Error **CO3**
- 17 What is E-mail **CO4**

SECTION – C (Understanding)

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

- 18 Define Multiplexing with types **CO2**
- 19 Discuss about Sliding Window Protocols **CO3**
- 20 Elementary Data Link Protocols **CO3**
- 21 Explain design issues for data link layer **CO3**
- 22 Discuss about Error Detection and Correction **CO3**

SECTION – D (Applying)

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

- 23 CRC, given frame=1101011011, G(x) = 10011 calculate and find the transmitted frame. **CO3**
- 24 Explain about the Routing algorithms **CO4**

DEPARTMENT OF COMPUTER SCIENCE

	Course Code:	10CT32	Programme:	B.Sc. Computer Science	CIA:	II
	Date:	14.10.2022	Part:	III	Semester:	III
	Duration:	2 Hours	Academic Year:	2022 - 23	Max. Marks:	50
	Study Component:	Core Course				
	Course Title:	COMPUTER GRAPHICS				
	SECTION – A (Remembering)					

Answer **ALL** the Questions:

(10 X 1 = 10 Marks)

- 1 Expansion of DDA algorithm is ____ CO2
 - a) Digital Difference Analyzer
 - b) Direct Differential Analyzer
 - c) Digital Differential Analyzer
 - d) Data Differential Analyzer
- 2 The cartesian slope - intercept equation for a straight line is ____ CO2
 - a) $y = m.x + b$
 - b) $y = b.x + m$
 - c) $y = x.x + m$
 - d) $y = b + m.m$
- 3 ____ is defined as a set of points that are all at a given distance r from a center position (x, y). CO2
 - a) Rectangle
 - b) Curve
 - c) Circle
 - d) Spline
- 4 ____ algorithm is a faster method for calculating pixel positions CO2
 - a) Bresenham's line
 - b) Parallel Line
 - c) Midpoint
 - d) DDA
- 5 A translation is applied to an object by ____ CO3
 - a) Repositioning object along a straight line path
 - b) Repositioning object along a circular path
 - c) both a and b
 - d) none of these
- 6 Translation of a two dimensional point can be done by adding ____ CO3
 - a) Translation distances
 - b) translation difference
 - c) translation points
 - d) repositioning
- 7 ____ is a rigid body transformation that moves objects without deformation CO3
 - a) Rotation
 - b) Scaling
 - c) Translation
 - d) All the above
- 8 A 2 dimensional rotation is applied to an object by ____ CO3
 - a) repositioning it along with straight line path
 - b) repositioning it along with circular path
 - c) both a and b
 - d) none of the above
- 9 The transformation that is used to alter the size of an object is ____ CO3
 - a) Scaling
 - b) rotation
 - c) translation
 - d) reflection
- 10 An area on a display device to which a window is a mapped is called a ____ CO4
 - a) Window
 - b) graphics
 - c) Animation
 - d) View port

SECTION – B (Remembering)

Answer any **FIVE** Questions:

(5 X 2 = 10 Marks)

- 11 Give any two advantages of DDA Line algorithm? CO2
- 12 List the basic attributes of a straight line? CO2
- 13 Expand PHIGS? CO2
- 14 What is meant by translation distance? CO3
- 15 Define differential scaling? CO3
- 16 Define shear? CO3
- 17 Give the uses of clipping? CO4

SECTION – C (Understanding)

Answer any **THREE** Questions:

(3 X 6= 18 Marks)

- 18 Summarize a note on output primitives in computer graphics? CO2
- 19 Critically analyze the working of Line Drawing algorithms? CO3
- 20 Summarize a note 2D translation transformations? CO3
- 21 Discuss on Scaling and its types? CO3
- 22 Brief a note on any two types of clipping? CO3

SECTION – D (Applying)

Answer any **ONE** Question:

(1X 12= 12 Marks)

- 23 Explain the working of Bresenham's Algorithm with suitable illustration? CO3
- 24 Explain the types of 2D transformations? CO4

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DEPARTMENT OF COMPUTER SCIENCE



Course Code:	10CT51	Programme:	B.Sc. Computer Science	CIA:	II
Date:	12.10.2022	Part:	III	Semester:	V
Duration:	2 Hours	Academic Year:	2022 - 23	Max. Marks:	50
Study Component:	Core				
Course Title:	PYTHON PROGRAMMING				

SECTION – A (Remembering)

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

- 1 Which of the following is correctly evaluated for this function? pow(x,y,z) **CO2**
 A. (x**y) / z B. (x / y) * z C. (x**y) % z D. (x / y) / z
- 2 Which of the following option is not a core data type in the python language? **CO2**
 A. Dictionary B. Lists C. Class D. All of the above
- 3 How we can change the shape of the Numpy array in python? **CO2**
 A.By Shape() B.By reshape() C.By ord() D.By change()
- 4 How we can convert the Numpy array to the list in python? **CO2**
 A.list(array) B.list.array C.array.list D.None of the above
- 5 Numpy in the Python provides the **CO3**
 A.Function B.Lambda function C.Type casting D.Array
- 6 Which of the following argument we need to pass in reshape() function? **CO3**
 A.Array B.Shape C.only array D.Both array and shape
- 7 Which of the following keyword is used to access the numpy module in python ? **CO3**
 A.access B.import C.fetch D.from
- 8 Which of the following thing can be data in Pandas? **CO3**
 A. a python dict B. an ndarray C. a scalar value D. All of the above
- 9 The _____ project builds on top of pandas and matplotlib to provide easy plotting of data. **CO3**
 A. yhat B. Seaborn C. Vincent D. Pychart
- 10 ML is a field of AI consisting of learning algorithms that? **CO4**
 A. Improve their performance B. At executing some task
 C. Over time with experience D. All of the above

SECTION – B (Remembering)

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

- 11 Define Function **CO2**
- 12 What is function call? **CO2**
- 13 What is fruitful function? **CO2**
- 14 How to work on multiple assignment ? **CO3**
- 15 Define compound data types **CO3**
- 16 What is length function? **CO3**
- 17 Define list in python **CO4**

SECTION – C (Understanding)

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

- 18 Explain about encapsulation with example program. **CO2**
- 19 Write a program for odd or even in-between the range 20 to 30 **CO3**
- 20 State For Loop with example program **CO3**
- 21 Define find function with example program **CO3**
- 22 Explain about character classification of string **CO3**

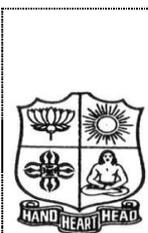
SECTION – D (Applying)

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

- 23 Write a program in sorting numbers without temp variable. **CO3**
- 24 Elaborate the following **CO4**
 (i) List Operation (ii) List Slices (iii) List Deletion (iv) List Length
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DEPARTMENT OF COMPUTER SCIENCE



Course Code:	10CT52	Programme:	B.Sc. Computer Science	CIA:	II
Date:	13.10.2022	Part:	III	Semester:	V
Duration:	2 Hours	Academic Year:	2022-23	Max. Marks:	50
Study Component:	Core				
Course Title:	JAVA PROGRAMMING				

SECTION – A (Remembering)

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

- 1 Inheritance may take how many different form _____ CO2
a) 5 b) 3 c) 4 d) 2
- 2 _____ have the same name as the class itself. CO2
a) Constructors b) Destructors c) Function d) Members
- 3 _____ is the peer class of string CO2
a) String Buffer b) Buffer c) append d) None of these above
- 4 Which of these keyword must be used to inherit a class? CO2
a) Super. b) This. c) Extent. d) Extends
- 5 Java Packages are therefore classified into two types what are these _____ CO3
a) Java API b) User defined Packages c) a & b are both d) None of these
- 6 A package is a collection of _____. CO3
a) Keywords. b) Classes and interfaces. c) Editing tools. d) Views.
- 7 The concept of derived classes is involved in _____. CO3
a) Encapsulation. b) Information hiding. c) Polymorphism. d) Inheritance
- 8 One interface can inherit another by use of the keyword _____. CO3
a) Public. b) Extends. c) Method name. d) Class name.
- 9 Inheritance allows _____ of sub classes. CO3
a) Creation. b) updation. c) View. d) display
- 10 _____ are conditions that cannot get recovered by any handling techniques CO4
a) Error b) Exception c) try d) throw

SECTION – B (Remembering)

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

- 11 Define Constructor CO2
- 12 List out the types of Access Specifier. CO2
- 13 Define Array CO2
- 14 Define Interface CO3
- 15 Define package CO3
- 16 Write the syntax of Interface CO3
- 17 Define Error CO4

SECTION – C (Understanding)

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

- 18 Explain about Constructor with example CO2
- 19 Explain about inheritance and its types CO3
- 20 Difference between class and Interface CO3
- 21 Write about the implementation of Interface CO3
- 22 Discuss about the types of packages CO3

SECTION – D (Applying)

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

- 23 Illustrate the concept of Interface with example CO3
- 24 Briefly discuss about exception handling CO4

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DEPARTMENT OF COMPUTER SCIENCE



Course Code:	10CT53	Programme:	B.Sc. Computer Science	CIA:	II
Date:	14.10.2022	Part:	III	Semester:	V
Duration:	2 Hours	Academic Year:	2022 - 23	Max. Marks:	50
Study Component:	Core				
Course Title:	SOFTWARE ENGINEERING				

SECTION – A (Remembering)

Answer **ALL** the Questions:

(10 X 1 = 10 Marks)

- 1 Which of the following is a non-functional requirement? CO2
 a) The system enables users to place lunch orders b)The system always responds to user clicks in less than one tenth of a second. c)The system displays a list of hotel vacancies. d)The system notifies the user when a new order arrives.
- 2 The user system requirements are the parts of which document? CO2
 a) SDD b) SRS c) DDD d) SRD
- 3 QFD stands for _____ CO2
 a) quality function design b) quality function development
 c) quality function deployment b) none of these
- 4 If every requirement stated in the Software Requirement Specification(SRS) has only one interpretation, SRS is said to be _____ CO2
 a) Correct b) Unambiguous c) Verifiable d) Consistent
- 5 _____ abstraction refers to a sequence of instructions that have a specific and limited function. CO3
 a) Data b) Procedural c) functional d) datastructure
- 6 _____ divides a software into named and addressable components CO3
 a) datastructure b) function point c) modularity d) validation
- 7 _____ is an indication of the relative interdependence among modules CO3
 a) cohesion b) coupling c) testing d) requirements
- 8 _____ is an indication of interconnection among modules CO3
 a) coupling b) cohesion c) refinement d) functional dependence
- 9 At highest level, a DFD is referred to as _____ CO3
 a) Scope Diagram b) Level 1 DFD c) Level 2 DFD d) Context Diagram
- 10 Which term is used to define testing? CO4
 a) Evaluating deliverable to find errors b) finding broken code
 c) a stage of all projects d) Configuration Mangement

SECTION – B (Remembering)

Answer any **FIVE** Questions:

(5 X 2 = 10 Marks)

- 11 Give any 4 non-functional requirements? CO2
- 12 Define Elicitation? CO2
- 13 What is requirements validation? CO2
- 14 List the types of abstraction in software design? CO3
- 15 Define modularity? CO3
- 16 Define coupling? CO3
- 17 Define Cohesion? CO4

SECTION – C (Understanding)

Answer any **THREE** Questions:

(3 X 6= 18 Marks)

- 18 Brief a note on analysis modeling. CO2
- 19 Critically analyze requirements engineering. CO3
- 20 Discuss on the translation of analysis model into design model CO3
- 21 Write a short note on design classes. CO3
- 22 Write a note on the elements of design model CO3

SECTION – D (Applying)

Answer any **ONE** Question:

(1X 12= 12 Marks)

- 23 Explain the types of design concepts used in software engineering. CO3
- 24 Explain in detail architectural styles used in software engineering. CO4

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234

DEPARTMENT OF COMPUTER SCIENCE

	Course Code:	10EP5A	Programme:	B.Sc. Computer Science	CIA:	II
	Date:	15.10.2022	Part:	III	Semester:	V
	Duration:	2 Hours	Academic Year:	2023 - 23	Max. Marks:	50
	Study Component:	Elective				
	Course Title:	CLOUD COMPUTING				

SECTION – A (Remembering)

Answer **ALL** the Questions:

(10 X 1 = 10 Marks)

- 1 The overhead associated with ____ staff is a major cost. CO2
A. Data Center B. IT C. Non IT D. All of the mentioned
- 2 Which of the following is specified parameter of SLA? CO2
A. Response times B. Responsibilities of each party
C. Warranties C. All of the mentioned
- 3 A _____ is a cloud computing service that is both hardware and software. CO2
A. service B. platform C. model D. all of the mentioned
- 4 A service provider reselling a _____ may have the option to offer one module to customize the information. CO2
A. CaaS B. AaaS C. PaaS D. SaaS
- 5 Which of the following type of virtualization is also characteristic of cloud computing? CO3
A. Storage B. Application C. CPU D. All of the mentioned
- 6 What is the most important area of concern in cloud computing? CO3
A. Security B. Scalability C. Storage D. None of the mentioned
- 7 Which of the following is the best-known service model? CO3
A. SaaS B. IaaS C. PaaS D. All of the mentioned
- 8 _____ is a financial estimate for the costs of the use of a product or service over its lifetime. CO3
A. TCO B. TOC C. COT D. All of the mentioned
- 9 Which of the following component is called hypervisor? CO3
A. VGM B. VMc C. VMM D. All of the mentioned
- 10 Most of the cloud architectures are built on this type of architecture. CO4
A. skeleton B. grid C. linear D. template

SECTION – B (Remembering)

Answer any **FIVE** Questions:

(5 X 2 = 10 Marks)

- 11 Display any Four cloud Technology. CO2
- 12 Define migration CO2
- 13 What is Virtualization CO2
- 14 List any four cloud service providers CO3
- 15 List the types of services in cloud CO3
- 16 Define SLA. CO3
- 17 What are the disadvantages of Cloud service? CO4

SECTION – C (Understanding)

Answer any **THREE** Questions:

(3 X 6= 18 Marks)

- 18 Discuss on the Types of virtualization. CO2
- 19 Various services in cloud implementation CO3
- 20 Explain about the stages of Cloud adoption CO3
- 21 Discuss the Layers of cloud implementation CO3
- 22 Explain the cloud computing cost models. CO3

SECTION – D (Applying)

Answer any **ONE** Question:

(1X 12= 12 Marks)

- 23 Explain the Opportunities and challenges of cloud adoption. CO3
- 24 Discovering cloud services development services and tools CO4

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DEPARTMENT OF COMPUTER SCIENCE



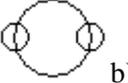
Course Code:	10SB51	Programme:	B.Sc. Computer Science	CIA:	II
Date:	10.10.2022	Part:	IV	Semester:	V
Duration:	1 hours	Academic Year:	2022-23	Max. Marks:	50
Study Component:	Skill Based				
Course Title:	COMPETITIVE EXAMINATION FOR IT				

SECTION – A

Answer **ALL** the Questions:

(50 X 1 = 50 Marks)

- 1 Tickets numbered 1 to 20 are mixed up and then a ticket is drawn at random. What is the probability that the ticket drawn has a number which is a multiple of 3 or 5? **CO2**
a) 1/2 b) 2/5 c) 8/15 d) 9/20
- 2 A bag contains 2 red, 3 green and 2 blue balls. Two balls are drawn at random. What is the probability that none of the balls drawn is blue? **CO2**
a) 10/21 b) 2/7 c) 7/2 d) 21/10
- 3 In a box, there are 8 red, 7 blue and 6 green balls. One ball is picked up randomly. What is the probability that it is neither red nor green? **CO2**
a) 1/3 b) 3/1 c) 5/8 d) 4/3
- 4 What is the probability of getting a sum 9 from two throws of a dice? **CO2**
a) 1/6 b) 1/8 c) 1/9 d) 1/12
- 5 Three unbiased coins are tossed. What is the probability of getting at most two heads? **CO2**
a) 3/4 b) 1/4 c) 3/8 d) 7/8
- 6 Four dice are thrown simultaneously. Find the probability that all of them show the same face.: **CO2**
a) 1/216 b) 1/36 c) 4/216 d) 3/216
- 7 Find odd man out **CO2**
3, 5, 11, 14, 17, 21
a) 21 b) 11 c) 14 d) 21
- 8 Find odd man out **CO2**
8, 27, 64, 100, 125, 216, 343
a) 27 b) 100 c) 125 d) 343
- 9 Find odd man out **CO2**
10, 25, 45, 54, 60, 75, 80
a) 45 b) 10 c) 54 d) 80
- 10 Find odd man out **CO2**
396, 462, 572, 427, 671, 264
a) 396 b) 427 c) 572 d) 264
- 11 Find odd man out **CO2**
6, 9, 15, 21, 24, 28, 30
a) 28 b) 24 c) 6 d) 30
- 12 A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour? **CO2**
a) 3.6 b) 7.2 c) 8.4 d) 10
- 13 An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in 1 hours, it must travel at a speed of **CO2**
a) 300 kmph b) 300 kmph c) 300 kmph d) 300 kmph
- 14 Look at this series: 7, 10, 8, 11, 9, 12, ... What number should come next? **CO2**
a) 7 b) 10 c) 12 d) 13
- 15 Look at this series: 53, 53, 40, 40, 27, 27, ... What number should come next? **CO2**
a) 12 b) 14 c) 27 d) 53
- 16 Look at this series: 31, 29, 24, 22, 17, ... What number should come next? **CO2**
a) 15 b) 14 c) 13 d) 12

- 17 Which of the following diagrams indicates the best relation between Author, Lawyer and Singer ? **CO2**
- a)  b)  c)  d) 
- 18 Which of the following diagrams indicates the best relation between Travellers, Train and Bus ? **CO2**
- a)  b)  c)  d) 
- 19 . Which of the following diagrams indicates the best relation between Profit, Dividend and Bonus **CO2**
- a)  b)  c)  d) 
- 20 Which of the following diagrams indicates the best relation between Women, Mothers and Engineers? **CO2**
- a)  b)  c)  d) 
- 21 Which of the following diagrams indicates the best relation between Factory, Product and Machinery **CO2**
- a)  b)  c)  d) 
- 22 Which number replaces the question mark? **CO2**
- 
- a) 5 b) 4 c) 1 d) 3
- 23 A/2, B/4, C/6, D/8 .?,? **CO2**
- A) E/8, F/10 B) E/12, F/14 C) E/10, F/12 D) D/10, E/10
- 24 . Coffee : cup :: soup : ? . **CO2**
- A) chicken B) apttizer C) bowl D) plate
- 25 . Doctor : Patient : : Politician : ? **CO2**
- A) voter B) chair C) money D) people
- 26 Add, Subtract, Multiple and logic operations are performed by **CO2**
- a) Memory b) Control unit c) ALU d) none of the above
- 27 In digital computer, data is represented in **CO2**
- a) Octal form b) Hexadecimal form c) Binary form d) Numerical form
- 28 Which of the following memories must be refreshed many times per second ? **CO2**
- a) A ROM b) A RAM c) Dynamic RAM d) EPROM
- 29 What is a set of instructions that directs the computer to process information? **CO2**
- a) Software b) Compiler c) Both [A] and [B] d) None of the above
- 30 The intersection areas of rows and columns in spreadsheet are called **CO2**
- a) Box b) Cells c) Line d) None of the above
- 31 Can you Solve $7 + 7 \div 7 + 7 \times 7 + 7 - 7 \div 7 + 7 \times 7 = ?$ **CO2**
- A) 112 B) 56 C) 0 D) 98
- 32 CD-ROM is a----- **CO2**
- a) A Memory register b) Semiconductor memory c) Secondary Memory d) none of the above
- 33 Which of the following is a secondary memory device? **CO2**
- a) A ROM b) AMEMORY Disk c) Keyboard d) Mouse
- 34 Which of the following is used as primary storage devices? **CO2**
- a) A Magnetic drum b) Floppy c) DVD d) DRAM

- 35 Which memory is volatile in nature? CO2
 a) A ROM b) A RAM c) Dynamic RAM d) EPROM
- 36 Where was the first computer installed in India? CO2
 a) Indian Statistical Institute, Kolkata b) Indian Statistical Institute, Chennai
 c) Indian Space Research Institute d) none
- 37 In internet terminology IP means CO2
 a) Internet Protocol B) internet c) process intranet protocol d) none
- 38 The first page of a website is called the CO2
 a) web page B) home page c) static page d) website
- 39 Data in a computer can be represented as _____ CO2
 A) Hexa-Decimal B) Decimal C) Binary D) All of these
- 40 A website address is a unique name that identifies a specific _____ on the web. CO2
 a) link B) connection c) protocol d) website
- 41 A _____ is a computer attached to the internet that runs special web server software and can send web pages out to the other computer over the internet. CO2
 a) web server B) http c) protocol d) none
- 42 Which software application is used for accessing sites or information on a network (as the world wide web)? CO2
 a) web applications B) applications software c) web browser d) website
- 43 We can draw a pie-graph in a _____ CO2
 A) Excel B) Power point C) Access D) Word
- 44 It is a small piece of text stored on a user's computer by a web browser for maintaining the state. What we are talking about? CO2
 a) cache B) memory c) cookies d) none
- 45 Which company is nicknamed "Big Blue" ? CO2
 a) IBM B) HCL c) TCS d) WIBRO
- 46 paint: brush::thread::----- CO2
 a) dress B) scissors c) drawing brush d) needle
- 47 CO2

 A)  B)  C)  D) 
- 48 The medicine gave him a short ----- escape from the suffering. CO2
 A) Escape B) relief C) respite D) release
- 49)The serious ----- with her is that she does not know typing. CO2
 A) disadvantage B) inconvenience C) handicap D) obstacle
- 50 Which of the following computer language is written in binary codes only? CO2
 a) pascal b) machine language c) C d) C#

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