

REGENT EDUCATION AND RESEARCH FOUNDATION**CA3 Internal Examination ODD Semester, 2023****Paper: Air and Noise Pollution****Paper Code:CE(PE)703A****Discipline: CE - Semester: 7TH-Time: 45 minutes - F.M. – 25****Group – A MCQ or Very Short Answer Type Questions, 1 mark each****(Answer any 5 questions of the following) Total Marks: 5 X 1 = 5**

Q. No		Cos covered	Blooms Taxonomy Action Verbs
1.a)	PAN is _____ pollutant.	CO1	finding
1.b)	Looping plume occurs in _____ condition.	CO2	finding
1.c)	Photochemical Smog is formed by _____ and _____.	CO1	finding
1.d)	Naturally occurring Ozone gas is found at _____.	CO2	finding
1.e)	Acid rain is composed of _____ and _____ gas.	CO1	finding
1.f)	Primary reason for ozone hole formation is _____ gas.	CO2	finding
1.g)	pH of acid rain is _____.	CO3	finding

Group – B Short Answer type Question, 5 marks each (Answer any 4 questions)

2.	Describe ELR and ALR.	CO2	describe
3.	Explain lofting and fanning plume with neat sketch.	CO3	explain
4.	Write about five of the major Green House gases.	CO5	write
5.	Define: Inverse condition with neat sketch.	CO1	define
6.	Calculate Sound level: (Pressure = 8GPa)	CO4	calculate
7.	Calculate resultant sound level: (L1 = 80Db, L2 = 70Db, L3 = 60Db, L4 = 70Db).	CO4	calculate

REGENT EDUCATION AND RESEARCH FOUNDATION**CA3 Internal Examination ODD Semester, 2023-2024****Paper: Data Structure & Algorithm****Paper Code: PCC-CS301****Discipline: CSE - Semester: 3rd Time: 45 Mins - F.M. – 25****Group – A MCQ or Very Short Answer Type Questions, 1 mark each****(Answer any 5 questions of the following) Total Marks: 5 X 1 = 5**

Q. No.	Questions	CO	PO	BL
1.a)	Give an example of Linear Data Structure and write down one application of that data structure.	CO1	1	1
1.b)	Which notation is used to express the Best case time complexity of an algorithm?	CO5	5	5
1.c)	Which searching algorithm follows Divide and Conquer Approach?	CO2	2	1
1.d)	When a Linear list allows elements to be added at either end and removed from one end, it is called _____.	CO3	3	1
1.e)	The following sequence of operation is performed on a Stack: push(1), push(2), pop(), push(1), pop(), pop(), push(2), pop(). Determine the sequence of popped out values.	CO3	3	5
1.f)	Write the difference between arr[][] and **arr.	CO1	1	1
1.g)	Choose the correct option. The initial configuration of Queue is a, b, c, d ('a' is at the front). To get the configuration d,c,b,a, one needs a minimum of: a) 2 deletions & 3 insertions b) 3 deletions & 2 insertions c) 3 deletions & 3 insertions.	CO3	3	6

Group – B Short Answer Type Question, 5 marks each (Answer any 4 questions)

2.	Convert the following infix expression into equivalent postfix expression using Stack: $a + b * c + (d * e + f) * g$.	CO3	3	3
3.	Explain Asymptotic Notation.	CO1	1	2
4.	Write down the pseudo code for Bubble Sort. What is the time complexity of Interpolation Search?	CO4, CO5	4	1
5.	Suppose, the size of the elements stored in an 8x3 matrix be 4 bytes each. If the base address of the matrix is 3500, then what will be the address of A[4,2] for both row major and column major?	CO1	1	1
6.	Compare Stack and Queue. Why the Queue data structure is called FIFO?	CO3	3	2,1
7.	Write down the recursive function to solve the Tower of Hanoi problem. Also draw the recursion tree for any set of initial values	CO2	2	1

REGENT EDUCATION AND RESEARCH FOUNDATION**CA3 Internal Examination ODD Semester, 2023-2024****Paper: OPERATING SYSTEM****Paper Code: PCCCS502****Discipline: CSE -Semester: 5TH-Time: 45 Minutes -F.M. : 25****Group – A****MCQ or Very Short Answer Type Questions, 1 mark each****(Answer any 5 questions of the following) Total Marks: 5 X 1 = 5**

Q. No.	Questions	CO	PO	BL
1.a)	Which is not a layer of operating system? a) Kernel b) Shell c) Application Program d) Critical Section	CO1	1	1
1.b)	Which one of the following is not a valid state of a process? a) Load b) Run c) Wait d) Terminate	CO2	2	1
1.c)	What are the two kinds of semaphores? a) Mutex & Counting b) Binary & Counting c) Counting & Decimal d) Binary & Decimal	CO3	3	1
1.d)	What are the operations that can be invoked on a condition variable in monitor? a) Wait & Signal b) Hold & Wait c) Signal & Hold d) Continue & Signal	CO4	4	1
1.e)	Which one of the following is the deadlock avoidance algorithm? a) Round-robin b) Ostrich c) Banker's d) Elevator	CO5	5	1
1.f)	For a deadlock to arise, which of the following condition must hold simultaneously? a) Mutual exclusion b) No preemption c) Hold and wait d) All of them	CO5	5	1
1.g)	Which one of the following is the address generated by CPU? a) Physical address b) Absolute address c) Logical address d) Trial address	CO6	6	1

Group – B**Short Answer type Question, 5 marks each (Answer any 4 questions)**

2.	What is kernel? State the function of system call? What are the different scheduling Criteria?	CO1, CO2	2	1
3.	What do you mean by scheduler? Explain different types of scheduler. Explain CPU scheduling criteria.	CO3	3	2
4.	Explain multithreading models.	CO3	3	2
5.	Discuss dining philosopher problem with the solution.	CO4	4	5
6.	What are the methods for handling deadlock?	CO5	5	1
7.	How would each of the First Fit, Best Fit and Worst Fit algorithms take place processes of 212 KB, 417 KB, 112 KB, 426 KB(in order). Which algorithm makes the most efficient use of memory for fixed size partitioning?	CO6	6	1

REGENT EDUCATION AND RESEARCH FOUNDATION
CA3 Internal Examination ODD Semester, 2023-2024

Paper: Artificial Intelligence

Paper Code: PEC-IT 501B

Discipline: CSE Semester: 5TH Time: 45 Mins F.M. – 25

Group – A

MCQ or Very Short Answer Type Questions, 1 mark each

(Answer any 5 questions of the following) Total Marks: 5 X 1 = 5

Q. No		CO	PO	BL
1.a)	Which is used to improve the agent's performance? a) Perceiving b) Learning c) Observing d) None of the mentioned	CO3	3	1
1.b)	Zero sum game has to be a _____ game. a) Single player b) Two player c) Multiplayer d) Three player	CO5	5	4
1.c)	Which search is implemented with an empty last-in-first-out queue? a) Depth-first search b) Breadth-first search c) Bidirectional search d) None of these	CO1	1	2
1.d)	First Order Logic is also known as _____ a) First Order Predicate Calculus b) Quantification Theory c) Lower Order Calculus d) All of the mentioned	CO4	4	3
1.e)	Which agent deals with happy and unhappy states? a) Simple reflex agent b) Model based agent c) Learning agent d) Utility based agent	CO3	3	2
1.f)	Which search algorithm imposes a fixed depth limit on nodes? a) Depth-limited search b) Depth-first search c) Iterative deepening search d) Bidirectional search	CO1	1	2
1.g)	A* algorithm is based on _____ a) Breadth-First-Search b) Depth-First –Search c) Best-First-Search d) Hill climbing	CO1	1	2

Group – B

Short Answer type Question, 5 marks each (Answer any 4 questions)

2.	Explain goal based AI agent system with proper diagram.	CO3	3	2
3.	Explain Alpha Beta pruning with proper example.	CO1	1	2
4.	Write down the Depth First Search algorithm.	CO1	1	2
5.	Discuss about the approaches of AI.	CO1	1	6
6.	Explain 8 puzzle problem, with proper diagram.	CO2	2	2
7.	Explain the limitations of Hill climbing algorithm with proper diagram	CO2	2	2



Principal

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