


CONTINUOUS LEARNING ASSESSMENT-2

Sub Code/Name: 18CSC206J – Software Engineering and Project Management Set : B

Class : II Year /IV Sem/B.Tech.

Date :

Max Marks : 50

Duration : 90 mts

PART-A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Mar ks	CO	BL	PI
1	Consider the below example for CRC model index card for the floor plan. Which is used to manage a unit of work from starting to finishing of the application A. Controller classes B. Boundary classes C. Entity classes D. Attribute classes	1	2	2	1.4.1
2	A program should be suitable for the purposes for which it was intended is called as _____ A. Commodity B. Delight C. Firmness D. Analysis	1	2	2	2.3.2
3	_____ is assessed by evaluating the feature set and capabilities of the Program. A. Functionality B. Usability C. Reliability D. Performance	1	2	1	1.4.1
4	Identify the correct order of process in the User Interface Design Evaluation Cycle. A. Preliminary design, build Prototype interface, Evaluate interface, Study by designer. B. Study by designer, build Prototype Interface, Preliminary design, Evaluate interface. C. Evaluate interface, Study by designer, Preliminary design, build Prototype Interface. D. Build prototype interface, Study by designer, build prototype interface, Evaluate interface.	1	2	3	3.4.1
5	Which of the accompanying statement(s) is/are valid concerning programming design?	1			3.4.1

S1 : Coupling is a proportion of how well the things assembled in a module have a place together coherently. S2 : Cohesion is a proportion of the level of connection between programming modules. S3 : If coupling is low and attachment is high then it is simpler to transform one module without influencing others. A. Only S1 and S2 B. Only S3 C. All of S1, S2 and S3 D. Only S1	2	3	
User interface design creates an effective communication medium between a human and a computer. In regards to below user interface design-process, answer the following questions. Which phase of User interface design process creates the prototypes that evaluates the usage scenario to meet the system goal? A. Interface validation B. Interface construction C. Interface analysis and modelling D. Interface design	1		4.3.2
A person might want to access his or her bank account via an Internet connection to the bank's online website. This scenario involves several elements which are involved in the entire chain of artifacts and events. Maybe design technique ought to tackle user activities, what objects on the Website function on user activities, how these objects communicate with the bank's underlying software framework, All these things will be analyzed by which design technique? A. ER Model B. System analysis C. Prototyping D. Design reuse	2	3	
Which design is used to represents the structure of data and program components that are required to build a computer-based system? A. Pattern oriented design B. Web application design C. Architectural design D. Component level design	1	2	1.4.1
Which level of cohesion occurs when a component performs a targeted computation and then returns a result? A. Functional B. Layer C. Communicational D. Congestion	1	2	9.3.1
Which of the following is not a UI configuration process? A. User, task, and environment analysis and modeling B. Interface design C. Knowledgeable, frequent users D. Interface validation	1	2	3.4.1

11	is an industry strength software product of a large size requires stringent coding standards. A. Coding B. Coding Methods C. Coding Framework D. Constructing	1	3	2	1.4.1
12	Ensure safety, the software product must have the error less than A.0.0001% B.0.01% C.0.000001% D.0.001%	1	3	2	2.4.2
13	Which among the following firm is working to develop automatic code generation system? A. Sun Microsystems B. HP C. IBM D. Dell	1	3	2	2.4.1
14	In Object Oriented Programming, polymorphism stands for? A. Allowing overriding of functions B. Hiding data C. Keeping things in different modules D. Wrapping things into a single unit	1	3	2	1.4.1
15	Which of the following is not an advantages of software reuse? A. high effectiveness B. faster development process C. Low cost D. Lower risks	1	3	2	1.4.1
16	_____ is a powerful tool to eliminate defects and improve software code. A. Deskcheck B. Walkthrough C. Inspection D. Code Review	1	3	2	1.4.1
17	_____ enables programmers to store large pieces of code inside procedures and functions. A. Structured programming B. Object oriented programming C. Automatic code generation D. Pair programming	1	3	1	3.3.1
18	SOA has been evolved recently for the purpose of A. Software construction B. Inspection C. Code Reuse D. Code Review	1	3	2	1.4.1
19	Which of the following tasks is not part of Software Configuration Management? A. Change Control	1		2	

B. Reporting C. Statistical Quality Control D. Version Control	3	1.4.1
leads a walkthrough? A. Scribe B. Moderator C. Reviewer D. Author	1	3

PART-B (3x10 = 30)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
21 (a)	Explain the Characteristics of a good software design with a neat diagram	10	2	3	2.4.2
	(Or)				
21 (b)	Design User Interfaces for online Examination System (minimum 5 webpage's and it should follow the golden rules to design good UI)	10	2	1	4.3.1
22 (a)	Explain in detail Deskcheck Peer review guidelines	10	3	2	12.3.1
	(Or)				
22 (b)	Discuss in detail about A. Pair Programming B. Object oriented programming	10	3	2	4.3.2
23 (a)	What are different types of architectural styles exist for software and explain any one software architecture	10	2	3	1.4.1
	(Or)				
23 (b)	Explain in detail Software Reuse	10	3	1	12.3.1

WORKSHEET-CAUSE AND EFFECT

Definition of Cause and Effect

In the cause and effect relationship, one or more things happen as a result of something else. A cause is a catalyst, a motive, or an action that brings about a reaction—or reactions. A cause instigates an effect. An effect is a condition, occurrence, or result generated by one or more causes. Effects are outcomes.

Directions to Solve Below in each of the questions are given two statements I and II. These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements. Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements. Mark answer.

- (A) If statement I is the cause and statement II is its effect.
- (B) If statement II is the cause and statement I is its effect.
- (C) If both the statements I and II are independent causes.
- (D) If both the statements I and II are effects of independent causes.
- (E) If both the statements I and II are effects of some common cause.

1. Statements:

Standard of living among the middle class society is constantly going up since part of few years. Indian Economy is observing remarkable growth.

- 1) A 2)B 3)C 4)D 5)E

2. Statements:

The meteorological Department has issued a statement mentioning deficient rainfall during monsoon in many parts of the country.

The Government has lowered the revised estimated GDP growth from the level of earlier estimates. 1) A 2)B 3)C 4)D 5)E

3. Statements:

The staff of Airport Authorities called off the strike they were observing in protest against privatization. The staff of Airport Authorities went on strike anticipating a threat to their jobs. 1) A 2)B 3)C 4)D 5)E

4. Statements:

A huge truck overturned on the middle of the road last night.

The police had cordoned off entire area in the locality this morning for half of the day.
1) A 2)B 3)C 4)D 5)E

5. Statements:

Importance of Yoga and exercise is being realized by all sections of the society.

There is an increasing awareness about health in the society particularly among middle ages group of people. 1) A 2)B 3)C 4)D 5)E

6. Statements:

The prices of food grains and other essential commodities in the open market have risen sharply during the past three months.

The political party in opposition has given a call for general strike to protest against the government's economic policy. 1) A 2)B 3)C 4)D
5)E

7. Statements:

The Government has decided to hold a single entrance test for admission to all the medical colleges in India.

The State Government has debarred students from other States to apply for the seats in the medical colleges in the State. 1) A 2)B 3)C 4)D 5)E

8. Statements:

Large number of Primary Schools in the rural areas is run by only one teacher. There has

been a huge dropout from the primary schools in rural areas.

- 1) A 2)B 3)C 4)D 5)E

9. Statements:

The employees of the biggest bank in the country have given an indefinite strike call starting from the third of the next month.

The employees of the Central Government have withdrawn their week long demonstrations.

- 1) A 2)B 3)C 4)D 5)E

10. Statements:

The farmers have decided against selling their Kharif crops to the Government agencies.

The Government has reduced the procurement price of Kharif crops starting from the last month to the next six months.

- 1) A 2)B 3)C 4)D 5)E

Exercise: Cause and Effect Essays

(a) Underline the cause and highlight its effect in each of the following sentences.

1. After the dog bit her, we had to take her to the hospital.
2. Her computer stopped working due to a virus.
3. The police arrested him because he committed a crime.
4. She set fire to the curtain first before the whole house burnt down.
5. If she gets accepted to university, she will become a doctor.
6. Unless she finds a replacement, she will be fired.
7. Owing to the lack of customers, the restaurant closed down this week.
8. Since she is scared of clowns, she never goes to the circus.
9. He passed his first year at university; as a result, his parents bought him a car.
10. She is lazy, therefore she has failed all of her subjects.

(b) Complete the sentence by filling in a cause or an effect as required. Circle what was needed to complete each sentence: cause or effect.

1. Melanie did not go to school because _____
cause/effect
2. Due to _____
Jason was late for work again.
3. Since Zinzi bought all the chocolate in the shop, Sarah _____
cause/effect
4. If _____,
there won't be enough space in the car.

cause/effect

5. Khulani works late every Friday so that _____
cause/effect

6. Since Jamie's parents found out about the party he hosted without their permission, _____
cause/effect

7. Owing to _____
the tickets were all sold out.
cause/effect

8. In view of Mandisa's fear of heights, _____
cause/effect

9. As a result of Thabo's silence, _____
cause/effect

10. Jenny shouted at Mark first _____

(c) Read through the following passage, underlining causes and highlighting effects

I woke up late this morning **because** my alarm clock did not ring. **As a result**, I had to rush to get ready for school and I made a huge mess all over the house. I missed the bus **because** I had to go back home to fetch my cellphone. **Consequently**, I was late for school, and my lecturer was not pleased with me at all. **Due to the fact** that my day had been going so badly, I was in a bad mood and I shouted at my friends. **Since** I was in such a bad mood, they didn't want to hang out with me and they left. After they left, my day only got worse. **In view of** all that happened today, I've decided that I need two alarm clocks instead of one, to make sure I wake up on time in the mornings.

Now, tabulate your causes and the related effects using a table similar to the one below:

Cause	Effect
eg. My alarm clock did not ring.	I woke up late.

(d) You have been given a cause and its effects. Link the cause and its effects using a few sentences. Remember to use your linking words.

1. CAUSE: terrorist attack, bomb explosion EFFECT
people killed, families grieving; multiple funerals

2. CAUSE: global warming
EFFECT: heat waves in summer, people fainting; overcrowding in hospitals

(e) Write a paragraph in which you explain something that happened to you in terms of its causes and effects.

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Continuous Learning Assessment - 2



Sub Code/Name :18CSC204J- DESIGN AND ANALYSIS OF ALGORITHMS
Set : ODD
Class : II Year B.Tech (CSE, AI&ML, IoT, CSBS, CS, BDA / IV Sem
Exam Date : 06.06.2022
Max Marks : 50

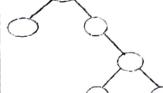
Duration : 90 Mins

PART A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No	MCQ Question	Marks	CO	BL	PI
1	Divide and conquer follows a _____ approach a) recursive problem-solving b) non recursive problem solving c) Greedy d) Brute Force	1	2	1	2.6.2
2	Which of the following sorting algorithms has the lowest worst-case complexity? a) Merge Sort b) Quick Sort c) Insertion Sort d) Selection Sort	1	2	2	2.6.1
3	What is the average case time complexity of merge sort? a) $O(n \log n)$ b) $O(n^2)$ c) $O(n^2 \log n)$ d) $O(n \log n^2)$	1	2	1	2.6.2
4	Strassen's matrix multiplication algorithm follows technique a) Divide and Conquer b) Dynamic Programming c) Greedy d) Backtracking	1	2	1	2.5.2
5	Find the maximum sub-array sum for the given elements. {-2, -1, -3, -4, -1, -2, -1, -5, -4} a) -3 b) 5 c) 3 d) -1	1	2	3	2.6.2
6	How many cases are there under Master's theorem? a) 2 b) 3 c) 4 d) 5	1	2	1	2.6.2

65

7	What is the time Complexity of the divide and conquer algorithm used to find the maximum sub array sum? a) $O(n)$ b) $O(n \log n)$ c) $O(n^2)$ d) $O(\log n)$	1	2	2	2.5.2
8	Points separated by the least distance is called the _____ pair. a) Longest-Pair b) Convex-Hull c) Closest-Pair d) Quick-Hull	1	2	1	2.7.1
9	In divide and conquer, the time is taken for merging the subproblems is? a) $O(n)$ b) $O(n \log n)$ c) $O(n^2)$ d) $O(\log n)$	1	2	2	2.6.2
10	How many sub arrays does the quick sort algorithm divide the entire array into? a) one b) two c) three d) four	1	2	1	2.6.2
11	In the _____ only one decision sequence is ever generated. a) Dynamic Programming b) Greedy method c) Huffman coding d) Tree traversal	1	3	1	1.6.1
12	From the following given tree, what is the computed codeword for 'c'?  a) 111 b) 101 c) 110 d) 011	1	3	3	2.6.2
13	The main time taking step in fractional knapsack problem is _____. a) Breaking items into fraction b) Adding items into knapsack c) Sorting d) Looping through sorted items	1	3	1	2.6.1

14	Which of the following is false in the case of a spanning tree of a graph G? a) It is tree that spans G b) It is a subgraph of the G c) It includes every vertex of the G d) It can be either cyclic or acyclic	1	3	3	2.5.2
15	Which of the following is true? a) Prim's algorithm initializes with a vertex b) Prim's algorithm initializes with an edge c) Prim's algorithm initializes with a vertex which has smallest edge d) Prim's algorithm initializes with a forest	1	3	3	2.6.4
16	If a problem can be broken into subproblems which are reused several times, the problem possesses _____ property. a) Overlapping subproblems b) Optimal substructure c) Memorization d) Greedy	1	3	2	2.5.2
17	Which of the following problems is NOT solved using dynamic programming? a) 0/1 knapsack problem b) Matrix chain multiplication problem c) OBST problem d) Fractional knapsack problem	1	3	2	2.6.5
18	Consider the matrices P, Q, R and S which are 20×15 , 15×30 , 30×5 and 5×40 matrices respectively. What is the minimum number of multiplications required to multiply the four matrices? a) 6050 b) 7500 c) 7750 d) 12000	1	3	2	1.6.1
19	Longest common subsequence is an example of a) Greedy algorithm b) 2D dynamic programming c) 1D dynamic programming d) Divide and conquer	1	3	1	2.5.2
20	_____ is a method of constructing a smallest polygon out of n given points. a) closest pair problem b) quick hull problem c) path compression d) union-by-rank	1	3	1	2.5.2

PART B (10x3= 30)
ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
21A	Is Merge Sort a Stable sort? Illustrate this with the help of the following sequence of numbers: {1,3,4,6,7,3,4,8}	10	2	2	2.8.2
B	[OR] Find the maximum and minimum elements of the Array using the divide-and-conquer method A = {13,14,16,20,8,4,7,45} and write its algorithm	10	2	3	2.8.1
22A	Compute Huffman Coding for the set of symbols with greedy Approach and also Encode the text ABACABAD	10	3	2	3.6.1
	A B C D E 0.4 0.1 0.2 0.15 0.15				
B	[OR] Find the LCS between strings A and B using Dynamic Programming A:EXAMPLE B: APE and write its algorithm	10	3	3	2.8.4
(23) A	i) Solve the following recurrence using the simplified Master theorem: $T(n)=2T(n/2) + n$ ii) Write an algorithm for finding closest pair problem	5	2	2	2.8.3
B	[OR] Using the Dynamic Programming approach, construct an optimal BST for the following keys: (do, if, int, while) with the following probability (0.1, 0.2, 0.4, 0.3)	10	3	2	3.8.2



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CYCLE TEST- 2



Sub Code/Name : 18CSC205J – Operating Systems Set : ODD
 Class :
 Date : Duration : 90mins
 Max Marks : 50

PARTA(20x1=20)
ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1	Process synchronization can be done on _____ a) Physical b) Hardware c) Software d) Both hardware and Software _____ is interprocess communication.	1	2	2	1.6.1
2	a) communication within the process b) communication between two process c) communication between two threads of same process d) communication between devices _____ is a classic software-based solution to the critical-section problem	1	2	1	1.6.1
3	a) Peterson's solution. b) Synchronization hardware c) TestAndSet Instruction d) SetAndTest Instruction	1	2	2	1.6.1
4	Semaphore can be accessed via two operations namely _____ operations a) stop() and run() b) pause() and unpause() c) proberen() and verhogen() d) call() and wait()	1	2	2	2.5.1
5	In _____ semaphore, the integer value can range over an unrestricted domain a) counting b) binary c) bounded _____	1	2	2	2.5.3

6	d) unbounded _____ is/are classical problem of synchronization. a) Bounded-Buffer Problem b) Readers and Writers Problem c) Dining-Philosophers Problem d) Bounded-Buffer Problem and Readers and Writers Problem e) Bounded-Buffer Problem, Readers and Writers Problem and Dining-Philosophers Problem	1	2	3	2.5.3
7	Which of the following scheduling algorithms is preemptive scheduling? a) FCFS Scheduling b) SJF Scheduling c) Network Scheduling d) SRTF Scheduling	1	2	1	2.5.2
8	CPU scheduling decisions may take place when a process a) switches from waiting to running state b) switches from terminate to ready state c) switches from waiting to ready state d) switches from waiting to new state	1	2	2	2.5.2
9	Which module gives control of the CPU to the process selected by the short-term scheduler? a) dispatcher b) interrupt c) scheduler d) MMU	—	1	2	4.4.1
10	Deadlock can arise if following condition/s hold simultaneously a) Mutual Exclusion only b) Mutual Exclusion and Hold & wait c) Mutual Exclusion, Hold & wait, No preemption d) Mutual Exclusion, Hold & wait, No preemption, Circular wait	1	2	2	1.2.1
11	Logical address is generated by the _____ a) memory manager b) CPU c) memory controller d) memory unit	—	1	3	4.4.2
12	Copying a process from memory to disk to allow space for other process is known as _____ a) fragmentation	1	3	2	4.4.1

	b) paging c) Swapping d) Demand Paging			
13	Floating sets up a _____ table to translate logical to physical addresses a) Segment b) Mapping c) Logical d) Page	1	3	3 1.2.1
14	The page base contains the _____ a) starting logical address of the process b) starting physical address of the page in memory c) page length d) ending logical address of the process	1	3	2 1.5.1
15	Solution to the problem of external fragmentation problem is to a) permit the logical address space of a process to be noncontiguous b) permit smaller processes to be allocated memory at last c) permit larger processes to be allocated memory at last d) permit the logical address space of a process to be contiguous	1	3	3 2.5.2
16	In segmentation, each address is specified by _____ a) a key & value b) an offset & value c) a value & segment number d) a segment number & offset	1	3	2 2.5.2
17	Consider a computer with 8 Mbytes of main memory and a 128K cache. The cache block size is 4 K. It uses a direct mapping scheme for cache management. How many different main memory blocks can map onto a given physical cache block? a) 2048 b) 256 c) 64 d) 8	1	3	1 4.4.1
18	The PTEB contains the _____ a) starting logical address of the process b) starting address of the page table c) page length d) ending logical address of the process	1	3	2 1.2.1
19	The 64-bit x86-64 architecture supports the following page a) Four levels of paging b) Two levels of paging c) One level paging d) Five levels of paging	1	3	2 4.4.2
20	In 32-bit ARM architecture, One-level paging is used for _____ sections a) 1-MB b) 4-KB and 16-KB pages c) 1-MB and 16-MB d) 16-KB	1	3	2 4.4.1

PART B (3x10=30)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
21 a	Define semaphore. Explain the use of semaphore in synchronization problem with an example.	10	2	3	1.2.2
	(OR)				

Suppose that the following processes arrive for execution at the times indicated. Each process will run the listed amount of time. In answering the questions, use non-preemptive scheduling and base all decisions on the information you have at the time the decision must be made.

Process	Arrival Time	Burst Time
P1	0.0	8
P2	0.4	4
P3	1.0	1

- 21 b.
- a) Find the average turnaround time for these processes with the FCFS scheduling algorithm?
 - b) Find the average turnaround time for these processes with the SJF scheduling algorithm?
 - c) The SJF algorithm is supposed to improve performance, but notice that we chose to run process P1 at time 0 because we did not know that two shorter processes would arrive soon. Find what is the average turnaround time will be if the CPU is left idle for the first 1 unit and then SJF scheduling is used.

22 a. Illustrate contiguous memory allocation schemes with examples.

10 2 3 3.6.2

(OR)

22 b. Draw the diagram of segmentation memory management scheme and summarize its principle.

10 3 1 2.5.2

23 a. Assume that there are three resources, A, B, and C. There are 4 processes P0 to P3. At T0 we have the following snapshot of the system

Process	Allocation			Max			Available		
	A	B	C	A	B	C	A	B	C
P0	0	1	0	7	5	3	3	3	2
P1	2	0	0	3	2	2			
P2	3	0	2	9	0	2			
P3	2	1	1	2	2	2			
P4	0	0	2	4	3	3			

10 2 2 1.7.1

Answer the following based on banker's algorithm:

- a) What is the content of need matrix? (3m)
- b) Is the system in a safe state? (4m)
- c) If a request from process P1 arrives for (1,0,0) can the request be granted immediately? (3m)

(OR)

23 b. Describe the various techniques for structuring the page table in a page memory management scheme.

10 3 2 1.2.2

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P1



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CYCLE TEST- 2

Sub Code/Name : 18CSC207J/Advance Programming Practice

Class/Sem : CSE with Specialization AIML,IOT,BDA,CS/II/IV

Max Marks : 50

Set : ODD

Date : 08.06.22

Duration: 90 Mins

PART A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PT
1	Which attribute is used to change the color of the text in the Button widget? a)Bg b)fg c)color d)active Foreground	1	2	2	14.1
2	_____ method is used to add the item in list box. a) insert() b) add() c) append() d) Add()	1	2	2	14.1
3	In event driven programming, flow of the program is determined by _____ a) Sensors only b) Exceptions and Errors only c) User actions and sensors d) Peripherals only	1	2	1	14.1
4	What is not true about Declarative programming? a) focus is on what needs to be done rather how it should be done b) style of building programs that expresses logic of computation without talking about its control flow c) declare the result we want rather how it has been produced d) builds programs using implementation logic	1	2	1	23.1
5	What are the object attributes in the following code? class Dog: dogs_count = 0 def __init__(self, name, age): self.name = name self.age = age print("Welcome to this world{}!".format(self.name))	1	2	3	31.4

	Dog dogs_count += 1				
6	a)Dog, name, age b) name, age c) dogs_count, name, age d) self, name, age, dogs_count	1	2	2	4.1.1
7	Which of the following is clickable in GUI programming? a) Button b)Checkbutton c) Label d) 1 and 2	1	2	2	23.1
8	Identify the method that organizes the widgets in blocks before placing in the parent widget. a)loop() b)Pack() c)mainloop() d)Tk()	1	2	2	23.1
9	Which of the following is the best definition for Event Handling? a) Program designed to run blocks of code or functions in response to specified events (e.g. a mouse click) b) Coding tasks involved in making your app respond to events by triggering functions. c) Function specified as part of an event listener; it is written by the programmer but called by the system as the result of an event trigger. d)A command that can be set up to trigger a function when a particular type of event occurs on a particular UI element.	1	2	2	23.4
10.	What is false regarding imperative languages? a)work by modifying program state b)code executes too slowly for optimal results on complex data science applications c) focus on what and not how d)executes step by step commands	1	2	1	23.4
11.	What does the scheduler do when an event occurs? a) Throw an Exception b) Call the appropriate event handler c) Terminate the program d) Wait for the event to be handled	1	2	1	23.4
	What is multithreaded programming? a) It's a process in which two different processes run simultaneously b) It's a process in which two or more parts of same process run simultaneously c) It's a process in which many different process are able to access same information d) It's a process in which a single process can access information from many sources				
	a) It's a process in which two different processes run simultaneously b) It's a process in which two or more parts of same process run simultaneously c) It's a process in which many different process are able to access same information d) It's a process in which a single process can access information from many sources	1	3	1	14.1

12.	Identify the technique that allows more than one program to be ready for execution and provides the ability to switch from one process to another.	1	3	3	2,3,4
13.	a) multitasking b) multiprocessing c) multithreading d) multiprogramming	1	6	2	4,2,2
14.	Which data type is represented below? <code>L= [1, 23, 'hello', 1]</code>	1	6	2	4,2,2
15.	a) List b) Dictionary c) Array d) Tuple	1	6	2	4,2,2
16.	Which is/are the Method for Programming Parallel: a) Message Passing b) Shared Memory c) Data Parallel d) Message Passing, SharedMemory, Data Parallel	1	3	2	4,3,1
17.	Which among the following is not Impure Function? a) strcpy() b) printf() c) rand() d) time()	1	3	2	1,2,1
18.	Which of the following is/are function programming tool: a) filter(function, sequence) b) map(function, sequence) c) reduce(function, sequence) d) filter, reduce and map	1	3	1	4,3,1
19.	Which keyword is used to define methods in Python? a) function b) def c) method d) All of these	1	3	3	1,2,1
20.	<pre>import functools l=[1,2,3,4] print(functools.reduce(lambda x,y:x*y,l))</pre> a)124 b)10 c)24 d)44	1	6	2	1,4,1
19.	<pre>function add (arr) : return arr.reduce((prev, current) => prev + current, 0)</pre> a)Declarative	1	6	3	1,4,1

b)Functional c)Imperative d)Procedural			
Parallelism representation is critical to the success of _____	1	3	3,1,4

PART B (3 x 10= 30)				
ANSWER ALL THE QUESTIONS				
Q.No	Question	Mark s	C O	B L
21.a	i)Write a program to find sum of n numbers. ii)Write a program to get a list of characters and concatenate it to form a string and display.	10	2	2
21.b	OR Create a table and perform select ,insert, delete ,update ,modify with SQL using python code	10	2	2
22.a	Design a window with two text input fields and another one label to display the result. There are two button objects with the captions Add and Subtract. The user is expected to enter the number in the two Entry widgets. The result of addition and subtraction are displayed in the label box.	10	6	3
22.b	OR Compare map ,reduce ,filter and lambda function with an example	10	3	1
23.a	Explain in detail about imperative paradigm with example	10	2	1
23.b	OR Describe the concept "Pool class" by importing a package pool	10	3	2



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RAMAPURAM

Sub. Code: 18PDH103T

Sub. Title: SOCIAL ENGINEERING

SRM Institute of Science and Technology
Ramapuram Campus
Department of CDC
Cycle Test-II - (SET -A)



Year/Sem: II/ IV
Marks: 50

CSE, IT, CIVIL

Answer all the questions

Part - A (20X 1 = 20 marks)

1. 'Development which meets the needs of the present without compromising the ability of future generations to meet their own needs' is called:
A. Unsustainable development B. Zero-time C. Sustainable development D. Exploitation
2. In the context of waste management, using handkerchiefs instead of disposable tissue papers is the concept of
A. Refuse B. Reuse C. Reduce D. Rot
3. Which of the following disease can be caused by stagnant water?
A. Chicken Pox B. Pneumonia C. Malaria D. Polio
4. Which marketing term symbolises all the communication system and methods that a marketer may use?
A. Product B. Place C. Promotion D. Price
5. Honour killing is a murder committed by
A. Neighbour B. Family members C. Enemy D. Unknown
6. 'One size fit all' approach is rarely best. Which feature of Social marketing does this emphasize?
A. Theory B. Exchange C. Segmentation D. Competition
7. In social marketing, organizations of similar goals
A. compete B. commit C. cooperate D. condone
8. _____ orientation often involves a top-down paternalistic effort with little participation by the beneficiaries
A. Participatory B. Service C. Charitable D. Empowering
9. Pick the odd one which is not related to Zero waste management
A. Minimized consumption B. Minimized recycling C. Minimized production D. Minimized waste
10. The Ministry of Corporate Affairs notified CSR under
A. Section 135 and Schedule VII B. Section 136 and Schedule VII
C. Section 135 and Schedule VIII D. Section 136 and Schedule VII
11. 'Waste minimizing technique' to reduce quality of e-waste generated is
A. Reverse proposal System B. Reverse Production System
C. Reserve Production System D. Reverse Generation System
12. One of the major reasons for female foeticide in our country is
A. Dowry system B. Patriarchy system C. Child marriage D. Domestic violence

13. Which one of the following is an example of Societal Marketing?
A. Amazon Alexa B. Swachh Bharath C. Polio drops D. Biodiesel - BMW cars
14. What is sex ratio?
A. No of females per thousand males B. No. of females per hundred males
C. The study of population growth D. Difference between birth rates and death rates.
15. "Light or dark, Big or small, same opportunities for all" is a slogan against ----
A. Women empowerment B. Unemployment C. Child education D. Discrimination
16. Which Approach under NGO targets disadvantaged group through small, locally based projects
A. Advocacy B. Volunteer C. Grass root development D. Humanitarian
17. I can identify when others need support and provide it; this 'I' statement refers to which facet?
A. Building relationship B. Solving problems peacefully
C. Valuing diversity D. Contributing to the community
18. I can solve some problems myself and can identify when to ask for help; this competency belongs to which Profile?
A. Profile 3 B. Profile 1 C. Profile 4 D. Profile 2
19. Which company has brand motto... 'Good food, Good life'
A. Tesla B. Nestle C. Birla D. Tata
20. A company must spend at least -----% of its profit of last 3 years for CSR activities
A. 0.2 B. 0.02 C. 2 D. 20

PART B Answer all the questions (3 x 10=30 marks)

21. a. Define the concept of Zero waste management and elaborate 5 R's of Zero waste with relevant examples
(OR)
b. Explain NGO and its types based on orientation and operation with examples
22. a. How do students demonstrate social responsibility? Explain the 4 facets of SRC from point of view of students with statements to support them. (OR)
b. i) Explain in detail the 4 types of CSR with suitable examples. (6mks)
ii) Give reasons why CSR is needed for the corporates. (4mks)
23. a. Define Social marketing and explain the features of Social marketing
(OR)
b. Give an account of Social Responsibility Competency Profiles. (5mks)
Define CSR in the Companies Rules and write a note on Corporate Social Reporting (mandatory disclosure)(5mks)

M. Shinde V

Bhim

CONTINUOUS ASSESSMENT -II

I8MAB204T-Probability and Queueing Theory

Year :II

Branch: CSE & IT

Time: 8.30-10.00 am.

Semester :IV

Date: 02.06.2022

Max.Marks: 50 Marks

Part – A(20×1=20 Marks)
Answer ALL Questions

Q.No.	Question	Marks	CO	BL	PI
1	Let X be uniformly distributed in $(-3,3)$. Then its probability density function $f(x)$ is given by (a) $\frac{1}{6}$ (b) $\frac{3}{4}$ (c) $\frac{1}{3}$ (d) $\frac{1}{9}$	1	2	2	1.2.1
2	In a normal distribution, about 99% of the observation lie between (a) $\mu \pm \sigma$ (b) $\mu \pm 3\sigma$ (c) $\mu \pm 2\sigma$ (d) $\mu \pm 0.5\sigma$	1	2	1	1.1.2
3	The moment generating function of the Poisson distribution with parameter λ is (a) e^λ (b) $e^{1-\lambda}$ (c) $e^{\lambda(e^t-1)}$ (d) e^{t-1}	1	2	1	1.1.2
4	The mean of exponential distribution is given by (a) $\frac{1}{\lambda}$ (b) λ (c) λ^2 (d) $\frac{1}{\lambda^2}$	1	2	1	1.1.1
5	The shape of the Normal curve is (a) Bell Shaped (b) Flat (c) Circular (d) Spiked	1	2	1	1.1.2
6	Normal Distribution is symmetric about (a) Variance (b) Mean (c) Standard Deviation (d) Covariance	1	2	1	1.2.1
7	If X is a Poisson variate satisfying $P(X=3) = P(X=4)$ then the mean is given by (a) 2 (b) 8 (c) 4 (d) 16	1	2	2	1.2.1
8	If X is a binomial random variable with parameters $n = 5, p = 0.4$ then variance is given by (a) 1.2 (b) 1.5 (c) 2.5 (d) 3	1	2	2	1.1.2
9	If X is an exponential random variable then $P[X > s + t / X > s] =$ (a) $P(X > s)$ (b) $P(X > t)$ (c) $P(X < s)$ (d) $P(X < t)$	1	2	2	1.2.1

10	Which of the following distribution satisfies memoryless Property? (a) Binomial distribution (b) Poisson distribution (c) Geometric distribution (d) Normal distribution	1	2	2	1.2.1
11	The standard deviation of sampling distribution is called (a) Sampling Error (b) Sample Error (c) Standard Error (d) Simple Error	1	3	1	1.1.1
12	A passing student is failed by an examiner, it is an example for (a) Type I Error (b) Type II Error (c) Unbiased Decision (d) Correct Decision	1	3	2	1.1.2
13	The degrees of freedom for testing a sample mean of sample size $n(<30)$ in t-test is given by (a) n (b) $n-1$ (c) $2n$ (d) $n-2$	1	3	1	1.1.1
14	The hypothesis of having no difference is called ----- (a) Null hypothesis (b) Alternate hypothesis (c) Mean (d) Variance	1	3	1	1.2.1
15	The region of rejection is called (a) critical region (b) Acceptance region (c) confidence region (d) statistical region	1	3	1	1.1.2
16	A _____ is a subset of a _____ (a) Sample, Population (b) Population, Sample (c) Statistic, Parameter (d) Parameter, Statistic	1	3	2	1.2.1
17	If θ_0 is a population parameter and θ is the corresponding sample statistic and if we set up the Null hypothesis $H_0: \theta = \theta_0$ then the right tailed alternative hypothesis is (a) $H_1: \theta = \theta_0$ (b) $H_1: \theta > \theta_0$ (c) $H_1: \theta < \theta_0$ (d) $H_1: \theta \neq \theta_0$	1	3	2	1.2.1
18	The size of the large sample is (a) < 30 (b) ≤ 30 (c) ≥ 30 (d) Exactly 30	1	3	1	1.1.1
19	The statistic to test the significant difference between the sample mean \bar{x} and population mean μ is (a) $z = \frac{\bar{x}-\mu}{\sigma/\sqrt{n}}$ (b) $z = \frac{\bar{x}+\mu}{\sigma/\sqrt{n}}$ (c) $z = \frac{\bar{x}-\mu}{\sigma/n}$ (d) $z = \frac{\bar{x}+\mu}{\sigma/n}$	1	3	2	1.1.1
20	Type I error is (a) accept H_0 , when it is false (b) accept H_0 , when it is true (c) reject H_0 , when it is true (d) reject H_0 , when it is false	1	3	2	1.1.2

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Part - B (3×10=30 Marks)
Answer ALL Questions

Q.No.	Question	Marks	CO	BL	PI																								
21	<p>(a) Find the Moment Generating function of binomial distribution and hence find the mean and variance.</p> <p style="text-align: center;">(OR)</p> <p>(b) In a normal distribution, 7% of the items are under 35 and 89% are under 63. What is the mean and standard deviation of the distribution?</p>	10	2	3	2.1.3																								
22	<p>(a) Before increase in excise duty on tea, 400 people out of a sample of 500 persons were found to be tea drinkers. After an increase in duty, 400 people were tea drinkers out of a sample of 600 people. Test whether there is a significant difference in the consumption of tea or not.</p> <p style="text-align: center;">(OR)</p> <p>(b) Two independent samples X and Y of sizes 7 and 10 gave the following data:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>X</td><td>25</td><td>32</td><td>30</td><td>32</td><td>24</td><td>14</td><td>32</td><td></td><td></td><td></td><td></td></tr> <tr> <td>Y</td><td>24</td><td>34</td><td>22</td><td>30</td><td>42</td><td>31</td><td>40</td><td>30</td><td>32</td><td>35</td><td></td></tr> </table> <p>Test whether there is a significant difference between two sample means.</p>	X	25	32	30	32	24	14	32					Y	24	34	22	30	42	31	40	30	32	35		10	3	3	2.4.3
X	25	32	30	32	24	14	32																						
Y	24	34	22	30	42	31	40	30	32	35																			
23	<p>(a) The number of monthly breakdown of a computer follows Poisson distribution with mean 1.8. Find the probability that the computer will function for a month</p> <p>(i) Without breakdown (ii) With only one breakdown (iii) With atleast one breakdown.</p> <p style="text-align: center;">(OR)</p> <p>(b) An IQ test was administered to 5 persons before and after they were trained. The results were as follows</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Candidates</td><td>I</td><td>II</td><td>III</td><td>IV</td><td>V</td></tr> <tr> <td>IQ before training</td><td>110</td><td>120</td><td>123</td><td>132</td><td>125</td></tr> <tr> <td>IQ after training</td><td>120</td><td>118</td><td>125</td><td>136</td><td>121</td></tr> </table> <p>Test whether there is any significant difference in IQ after the training programme.</p>	Candidates	I	II	III	IV	V	IQ before training	110	120	123	132	125	IQ after training	120	118	125	136	121	10	2	3	2.4.1						
Candidates	I	II	III	IV	V																								
IQ before training	110	120	123	132	125																								
IQ after training	120	118	125	136	121																								
		10	3	4	2.4.3																								

CYCLE TEST- 2

Sub Code/Name : 18CYM101T/ENVIRONMENTAL SCIENCE Set : B

Class : II B.Tech Date :

Max Marks : 50 Duration : 90 MINS



PART A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1	is determined by measuring the dissolved oxygen used by microorganisms during the biochemical oxidation of organic matter in 5 days at 20°C. a) BOD b) COD c) TOC d) ThOD	1	2	2	1.2.1
2	Organic agriculture advocates avoiding the use of a) Organic manure b) Stored water c) Modern technologies in harvesting d) Chemical fertilizers	1	2	1	1.2.1
3	How does an artificial lake help in solving thermal pollution? a) It stores heated water b) It gives a good aesthetic view c) It helps to breed fishes d) It is used during the summer season where water scarcity arises	1	2	2	1.2.1
4	----- is a process which involves further removal of the nitrogen. a) Nitrification b) Denitrification c) Ammonification d) Reduction	1	2	2	1.2.1
5	The biochemical oxygen demand is computed by a) Dissolved oxygen / Dilution factor b) Dissolved oxygen + Dilution factor c) Dissolved oxygen - Dilution factor d) Dissolved oxygen * Dilution factor	1	2	2	1.2.1
6	Acid rain is due to (a) SO ₂ b) O ₂ c) PO ₃ d) CH ₄	1	2	2	1.2.1
7	Incubation temperature for BOD estimation is a) 5° C b) 10° C c) 15° C d) 20° C.	1	2	1	1.2.1
8	The objective of BOD estimation is to find out the a) amount of dissolved solid b) amount of suspended solid c) amount of decomposable organic matter. d) amount of settling solids	1	2	1	1.2.1
9	Soil pollutants such as cyanide and phenols are released by which industries? a) Paper mill b) Sugar industry c) steel and Coke industry. d) Fertilizers	1	2	1	1.2.1
10	How is soil affected by insecticide and pesticide? a) Breaks down soil minerals b) Draws out natural needed nitrogen c) Kills the plants starting at the roots d) Hurt the soils feelings	1	2	2	1.2.1

11	How many steps are present in anaerobic digestion? a) 1 b) 2 c) 3 d) 4	1	3	1	1.2.1
12	A grit chamber is usually installed _____ primary sedimentation tanks. a) Before b) After c) In between d) In	1	3	2	1.2.1
13	The tanks built with mechanical means for continuous removal of solids being deposited by sedimentation are called a) Clarifiers b) Settling basins c) Sedimentation tanks d) Eco-ponds	1	3	1	1.2.1
14	in trickling filter contains many species like bacteria and round worms. a) Treated water b) Wastewater c) Biofilm d) Air influent	1	3	1	1.2.1
15	Which type of bacteria are used in trickling filters? a) Facultative b) Nitrifying c) Anaerobic d) Blue-green bacteria	1	3	1	1.2.1
16	What is the time period for which the water is stored in fill and draw type of sedimentation tank? a) 48 hours b) 24 hours c) 52 hours d) 76 hours	1	3	1	1.2.1
17	While designing a trickling filter what would be the depth assumed? a) 12-15m b) 4-12 m c) 16-20 m d) 20-25 m	1	3	2	1.2.1
18	Micro-organisms metabolize the _____ that exists after primary clarification. a) Chemicals b) Coagulant c) Ions d) Biological waste	1	3	2	1.2.1
19	is provided after activated sludge process. a) Primary sedimentation tank b) Flocculation tank c) Secondary sedimentation tank d) Sand filter	1	3	2	1.2.1
20	Sludge is disposed through a) Hopper bottom b) Sludge pump c) Deflector d) Launder	1	3	2	1.2.1

PART B (3x10 = 30)

ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
21	a. Discuss in details about the sources, effects and control methods of soil pollution. (Or) b. Explain the sources, effects and control measures of radiation pollution.	10	1	2	1.2.1
22	a. Discuss the preliminary and primary treatment methods in wastewater treatment process. (Or) b. Explain the role of activated sludge and aid of trickling filters in wastewater treatment process.	10	1	3	1.2.1
23	a. Discuss in details about the sources, effects and control method of thermal pollution. (Or) b. Explain the various steps involved in the secondary treatment or biological treatment of wastewater.	10	1	3	1.2.1



1400

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
CONTINUOUS LEARNING ASSESSMENT III

Sub Code/Name : 18CSS202J - Computer Communications **Set** : B
Class : II Year / IV Sem/ B.Tech CSE All Streams **Date** : 21.06.2022
Max Marks : 50 **Duration** : 90 Mins

PART - A (20 x 1= 20)

ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
1	PPP consists of _____ components a) Three (encapsulating, the Domain Name system) b) Three (encapsulating, a link control protocol, NCP) c) Two (a link control protocol, Simple Network Control protocol) d)Two (a link control protocol, TCP)	1	4	1	1.3.1
2	In PPP, the default maximum length of the information field is _____ a)1000 bytes b)1500 bytes c) 2000bytes d) 2500bytes	1	4	1	1.4.1
3	The disadvantage of stop and wait protocol is a)Error free communication channel does not exist b) Acknowledgement may get lost c) Deadlock situation may occur d) All of these	1	4	1	1.3.1
4	Propagation delay depends on a) Packet length b) Transmission rate c) Distance between the routers d) Frame number	1	4	1	1.3.1
5	Which is used by many users to establish their home PC to the Internet via a phone-line connection a)FTP b) PPP c) OSI d) PAR	1	4	1	1.4.1
6	A sender has a sliding window of size 15.First 15 frames are sent. The first acknowledgement received is ACK 15.The receiver is expecting which frame? a) Frame 15 b) Frame 14 c) Frame 1 d) Frame 0	1	4	1	1.4.1
7	In Cyclic Redundancy Check, The CRC indicates a) The divisor b) The remainder c) The divisor d) The quotient	1	4	1	1.4.1
8	Which protocol does the PPP protocol provide for handling the capabilities of the connection/link on the network? a) LCP b) NCP c) Both LCP and NCP d) TCP	1	4	1	1.3.1
9	CSMA/CD (Carrier Sense Multiple Access with Collision Detection) is a data link layer protocol that does the following. a) Allows client browser to request Web pages (objects) from a Web server b) Efficient MAC protocol for classic Ethernet LANs c) Shares use of a physical channel on a time slot basis d) All of the above	1	4	1	1.3.1
10	When 2 or more bits in a data unit has been changed during the transmission, the error is called _____ a) random error b) burst error c) inverted error d)double error	1	4	1	1.3.1
11	The computation of the shortest path in OSPF is usually done by	1	5	1	1.3.1

	a) Bellman-ford algorithm c) Dijkstra's algorithm Which one of the following algorithm is not used for congestion control?	b) Routing information protocol d) Distance vector routing			
12	a) traffic aware routing c) load shedding	b) admission control d) routing information protocol	1	5	1 1.3.1
13	a) K-values c) Hop Count	b) Bandwidth only d) Delay only	1	5	1 1.3.1
14	Which multicast address does the OSPF Hello protocol use?	a) 224.0.0.5 b) 224.0.0.6 c) 224.0.0.7 d) 224.0.0.8	1	5	1 1.4.1
15	Which protocol maintains neighbor adjacencies?	a) RIPv2 and EIGRP b) IGRP and EIGRP c) RIPv2 d) EIGRP	1	5	1 1.3.1
16	LSP stands for	a) Link Stable Packet b) Link State Packet c) Link State Protocol d) Link State Path	1	5	1 1.3.1
17	In EIGRP best path is known as the successor, whereas backup path is known as _____	a) Feasible successor b) Back-up route c) Default route d) There is no backup route in EIGRP	1	5	1 1.3.1
18	Distance vector protocols use the concept of	a) split horizon b) Back-up route c) Hop Count d) Delay	1	5	1 1.3.1
19	BGP runs on the top of TCP port number _____.	a) 169 b) 178 c) 179 d) 1911	1	5	1 1.3.1
20	Border Gateway Protocol (BGP) uses the hop-count for shortest path, but hop-count in BGP's case is a _____	a) router b) AS (Autonomous System) c) switch d) BGP doesn't use Hop-count	1	5	1 1.3.1

PART - B (3x10= 30)**ANSWER THE FOLLOWING QUESTIONS**

Q.No	Question	Mar ks	CO	BL	PI
21(a)	What do you mean by sliding window protocol? Distinguish between Go-back-N protocol and selective repeat protocol.	10	4	2	1.3.1
(Or)					
21(b)	Compare HDLC and PPP protocol and explain about frame format used in both protocols.	10	4	3	2.4.1
22(a)	Describe the working principle of Carrier sense multiple access with collision Detection (CSMA/CD)	10	4	3	2.4.1
(Or)					
22(b)	Explain about Routing information protocols and List out the characteristics of two versions	10	5	2	1.4.2
23(a)	Discuss how the link state routing uses Dijkstra's algorithm to update the Routing tables.	10	5	3	2.4.1
(Or)					
23(b)	Explain about the types of OSPF packet in detail.	10	5	2	1.4.2

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
RAMAPURAM CAMPUS
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
Continuous Learning Assessment - 3



Sub Code/Name : 18CSC204J- DESIGN AND ANALYSIS OF ALGORITHMS

Set : ODD

Exam Date : 22.06.2022

Class : II

Duration : 90 Mins

Max Marks : 50

PART A (20x1= 20)

ANSWER ALL THE QUESTIONS

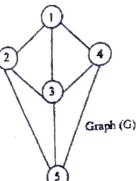
Q.No	MCQ Question	Marks	CO	BL	PI
1	How many directions do queens attack each other? a) 1 b) 2 c) 3 d) 4	1	4	1	2.6.2
2	The all-pairs _____ problem is to determine a matrix A such that A(i,j) is the length of a shortest path from i to j. a) backward approach b) forward approach c) brute force approach d) shortest-path	1	4	2	2.6.1
3	In what manner is a state-space tree for a backtracking algorithm constructed? a) Depth-first search b) Breadth-first search c) Twice around the tree d) Nearest neighbour first	1	4	1	2.6.2
4	Which one of the following is an application of the backtracking algorithm? a) Finding the shortest path b) Finding the efficient quantity to shop c) Ludo d) Crossword	1	4	1	2.5.2
5	The problem of finding a subset of positive integers whose sum is equal to a given positive integer is called as? a) n- queen problem b) subset sum problem c) knapsack problem d) Hamiltonian circuit problem	1	4	3	2.6.2
6	What Approximation algorithm is used to construct the solution for Travelling Salesman Problem? a)DFS b)BFS	1	4	1	2.6.2

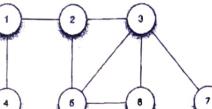
7	c) Twice around a tree d) Branch and Bound. Which of the following can traverse the state space tree only in DFS manner? a) branch and bound b) dynamic programming c) greedy algorithm d) backtracking	1	4	2	2.5.2
8	In knapsack problem , the best strategy to get the optimal solution, where v_i/w_i is the value , weight associated with each of the x_i th object respectively is to a) Arrange the value v_i/w_i in ascending order b) Arrange the value v_i/x_i in ascending order c) Arrange the value v_i/w_i in descending order d) Arrange the value v_i/x_i in descending order	1	4	1	2.7.1
9	organizes details of all candidate solutions and discards large subsets of fruitless candidate solutions. a) Branch and Bound b)Greedy c)Divide and conquer d)Brute force	1	4	2	2.6.2
10	Identify the approach followed in Floyd Warshall's algorithm. a)Linear programming b)Dynamic Programming c)Greedy Technique d)Backtracking	1	4	1	2.6.2
11	Randomized Algorithms are also called as a) Deterministic Algorithms b) Heuristics Algorithms c) Probabilistic Algorithms d) Linear Algorithms	1	5	1	2.5.3
12	Randomized Algorithms are used for handling a) P Class Problem b) NP Class Problem c) NP Hard Problem d) NP Complete Problem	1	5	3	2.6.2
13	is a match between the hash code and the presence of incorrect pattern a) Successful hit b; Unsuccessful hit c) Sparious Hit d) Missed Hit	1	5	1	2.6.1
14	A naïve String-matching algorithm matches a pattern P with text T in _____ time, where n and m are the lengths of substring and text a) $O(nm)$ b) $O(n \cdot m)$ c) $O(n \cdot m^2)$ d) $O(n \cdot m + 1)$	1	5	3	2.5.2

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15	What is the worst-case time complexity of randomized quicksort? a) O(n) b) O(n log n) c) O(n^2) d) O(n^2 log n)	1	5	3	2.6.4
16	Identify the disadvantage of Randomized algorithms a) Simplicity b) Efficiency c) Superior Asymptotic Bounds d) Reliability and over Dependence	1	5	2	2.5.2
17	Travelling Salesperson belongs to which category of Complexity Class a) P Class b) NP Class c) NP Complete d) NP Hard	1	5	2	2.6.5
18	Problems that cannot be solved by any algorithm are called? a) tractable problems b) intractable problems c) undecidable problems d) decidable problems	1	5	2	2.2.2
19	Which of the following problems is not NP complete? a) Hamiltonian circuit b) Bin packing c) Partition problem d) Halting problem	1	5	1	2.2.2
20	The worst-case efficiency of solving a problem in polynomial time is? a) O(p(n)) b) O(p(n log n)) c) O(p(n^2)) d) O(p(n log m))	1	5	1	2.5.2

PART B (3X10= 30)
ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
21 A	Consider a graph G= (V, E). Find the Hamiltonian circuit using backtracking method.  [OR]	10	4	2	2.8.2

B	Solve the following Knapsack problem using Branch and Bound Technique. Assume W=12	Items	Wi	Pi	10	4	3	2.8.1	
		1	2	10					
		2	3	20					
		3	4	24					
22 A	Find the Vertex Cover Problem for the given graph and write its Algorithm		10	5	2	3.6.1			
[OR]									
B	(i) What is Hiring Problem. Write a Procedure for Randomized Hiring Problem (ii) Discuss the various Complexity Classes. Also give an example for each class		5	5	2	2.8.4			
23 A	Apply Floyd's warshall's method to find the shortest path for the below-mentioned all pairs.	$\begin{matrix} & 1 & 2 & 3 & 4 \\ 1 & 0 & \infty & 3 & \infty \\ 2 & 2 & 0 & \infty & \infty \\ 3 & \infty & 7 & 0 & 1 \\ 4 & 6 & \infty & \infty & 0 \end{matrix}$	10	4	2	2.8.3			
[OR]									
B	Consider the following sequences: A: 1 3 7 1 2 4 3 B: 2 4 3 If A is the text hash code and B is the pattern hash code, Use Modulo Arithmetic 13 and apply the Rabin Karp Algorithm to find the pattern match. Show the intermediate steps.		10	5	2	3.8.2			



Unit - II

- 1) Explain virtual memory concept in detail along with neat diagram.
- 2) Explain about need for copy on write operations & also explain in detail about overlay concept with example.
- 3) Explain in detail about demand paging and how to handle the page fault in detail about neat diagram.

Unit - III

- 1) Explain about the various disk scheduling methods along with neat diagram.
- 2) Explain in detail about the different file access methods.
- 3) Explain in detail about the need for file sharing for protection.
- 4) Explain in detail about the file system structure & various levels of directory structure.
- 5) Describe the various file allocation methods.
- 6) Explain about the free space mgmt & swap space mgmt of file.
- 7) Explain the various level of RAID along with Neat diagram.



Unit - IV

- 1) Page replacement algorithm.
 - LRU
 - Optimal
 - LRU page replacement second chance algorithm.
- 2) Virtual memory technique.
- 3) Thrashing
- 4) Page fault.
- 5) Low residency.
- 6) Fragmentation (Internal & External)

Unit - V

- 1) Disk scheduling
 - FCFS
 - SSTF
 - SCAN
 - CSCAN
 - LOOK
 - CLOOK
- 2) File allocation methods
 - contiguous allocation.
 - linked list "
 - indexed "
- 3) RAID.

And also

- ↳ directory implementation.
 - " structure.



Sub Code: 18PDH03
Sub Title: SOCIAL ENGINEERING

SRM Institute of Science and Technology
Ramanpuram Campus
Department of CDC
Cycle Test-III - (SET -B)



Year/Sem: II / IV
Marks: 50

Answer all the questions
Part - A (20 X 1 = 20 marks)

1. A Common ground for all Social entrepreneurs is to fight against _____.
 - Injustice
 - Global hunger
 - Advancement in technology
 - Lack of transport
2. A for-profit enterprise with the dual goals of achieving profitability and attaining beneficial return for society is called _____.
 - Social business
 - Green entrepreneurship
 - Social entrepreneurship
 - Portfolio entrepreneurship
3. As per the leading historical Social Entrepreneur who fought for women's right in United States?
 - Dr Maria Montessori
 - Susan Dees
 - Margaret Sanger
 - Susan B. Anthony
4. Cultural change can also occur through _____.
 - language and symbols
 - diffusion and technology
 - multiculturalism and assimilation
 - invention and discovery
5. Embracing language and ethnic and cultural difference is thought to be a core value called _____.
 - Importance of accommodation and tolerance
 - compassion and generosity
 - belief in equality and fairness
 - support for diversity
6. Good relationship with customers consists of all of the following except:
 - Communicate a positive attitude
 - Display strong business ethics
 - Make the customer feel good
 - Be concerned more about the speed of service than the quality of the service
7. How did soldiers refer to Florence Nightingale?
 - Messenger of peace
 - Lady Doctor
 - Lady with the Lamp
 - White damsel
8. Social Entrepreneurs are agents of _____.
 - Socialization
 - Poverty Alleviation
 - Governance
 - Change
9. Social entrepreneurs do not work for _____.
 - Child Safety
 - Politics
 - Environmental issues
 - Women empowerment
10. The Sole aim of social business is to serve _____.
 - The entrepreneurs
 - The Public Sectors
 - The Private Sectors
 - The downtrodden
11. Vinoba Bhave , who distributed nearly 7,00,000 acres of land to the landless, in India is a _____.
 - Therapist
 - Entrepreneur
 - Sociologist
 - Social Entrepreneur

12. What do you think a social entrepreneur envisions?
 - Society without culture
 - Society without problems
 - Society without cinema
 - Society without solutions
13. What does the concept of diversity in the workplace refer to?
 - Physical differences among employees
 - Social differences among employees
 - Historical differences among groups
 - Managerial difference among employees
14. Which of the following defines a good relationship in the workplace?
 - Gossip
 - Defame colleagues
 - Welcoming diversity
 - Close communication
15. What is the minimum percentage, the Board of Directors shall make sure that the company spends in every financial year as per CSR policy.
 - 5
 - 4
 - 2
 - 3
16. Zakaat is the law of sharing one's earnings with the poor in _____.
 - Hinduism
 - Islam
 - Christianity
 - Sikhism
17. Changes in the Culture, Tradition, Beliefs and Symbols is called _____.
 - Change in Social Structure
 - Social Change
 - Change in Law
 - Change in Technology
18. What is the most important part of your business plan?
 - Executive Summary
 - Table of Contents
 - Background
 - Financial Plan
19. Understanding cultures will help us _____.
 - overcome and prevent racialðnic divisions
 - In decision-making processes
 - Individual social responsibility
 - To create equitable society
20. Which one of the following is the Social Responsibility Competency?
 - Building values
 - Valuing diversity
 - Contribution for sustainable development
 - Participating with emerging trends

PART-B

Answer all the questions (3 x 10=30 marks)

21. (a) What are the core values of vision and mission?
(OR)
(b) What are the responsibilities of a student in a society?
22. (a) Explain the evolution and phases of corporate social responsibility in India.
(OR)
(b) Is understanding culture important? Brief the issues with colleagues in working space.
23. (a) What is social entrepreneurship? explain the types of social entrepreneurship.
(OR)
(b) What are the major impacts of social entrepreneurs in society?



FACULTY OF ENGINEERING AND TECHNOLOGY
 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
 B.Tech. CSE, AIML, CS, IOT, BDA

CONTINUOUS LEARNING ASSESSMENT-3

Sub Code/Name: 18CSC206J – Software Engineering and Project Management Set : B
 Date :
 Class : II Year /IV Sem/B.Tech.
 Duration : 90 min
 Max Marks : 50

PART-A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Mar ks	CO	BL	PI
1	Which is a test case design technique that complements equivalence partitioning? A. Boundary value analysis B. Orthogonal array testing C. Graph based testing D. Model based testing	1	4	2	2.32
2	A particular text field accepts only alphanumeric characters. Which of the following is invalid equivalence partition? A. Testing B. Test2ing C. Test D. Test#ting	1	4	2	2.32
3	A numeric field accepts age of a candidate registering for a Government job. The age for applying is greater than 22 and less than or equal to 28 only. Based on the above statement specify which of the following covers the MOST boundary values? A. 18,22,28,30 B. 12,22,25,30 C. 22,23,25,28 D. 18,24,28,29	1	4	1	1.41
4	The QA testing team re-executes a small subset of tests that have already been conducted and ensure that the changes are not creating negative effects by using the following testing strategy A. Alpha Testing B. Beta Testing C. Regression Testing D. Smoke Testing	1	4	1	1.41
5	Consider the below given function Add element procedure , which was used to insert elements into a list void Add_element (int list[], int elem[], int cnt) { int i,j,key; for (i=0; i<=cnt; i++) elem[i] = i; for (i=2; i<=cnt; i++) { key = elem[i]; }	1	4	3	3.41

```

j = 1;
while (list[elem[j-1]] > list[key])
{
    elem[j] = elem[j-1];
    j--;
}
elem[j] = key;
}

for (int l=0;l<cnt;l++)
printf("%d\n",elem[l]);
}
  
```

After creating a suitable control graph for the function, find how many edges and nodes would be present in it respectively?

- A. 14.11
- B. 14 , 12
- C. 12,12
- D. 13,11

The main focus of boundary value analysis design methodology is to

- A. Explore the output errors
- B. Explore input errors
- C. Rectify the errors
- D. Report the errors

An simple online bulletin system was developed to send out centralized communication to the students of computer science department. The application was estimated to have 20 function points and 10 functional characteristics which are based on user importance, usage-intensity, complexity, and uniformity and interfacing systems. The application has 8 dynamic quality characteristics and 4 static quality characteristics. The factors influencing the environment of a software application are test tools with rating - 4 , development tests(rating - 4) and Test ware determined by usable dataset (rating - 2). The factors influencing the productivity are based on skill set of human resources with a rating of 0.8. The control factors which can be applied externally is about 10% of the primary test hours. With the help of the above data calculate the Total Test hours for online Bulletin System

- A. 13400 hours
- B. 14784 hours
- C. 19958 hours
- D. 15584 hours

Under what situation Error Guessing technique is mostly used

- A. First step to derive on test cases
- B. After most of the formal techniques are applied
- C. By inexperienced testers
- D. After live implementation

Which testing is focuses on the design and construction of the software architecture.

- A. Validation testing
- B. Unit testing
- C. System testing
- D. Integration testing

Create a Calculator program in C language . The Pseudo

4
14.11

4
3
1
3.41

1
3.41

4
2
14.11

4
2
9.3.1

4
2
3.4.1

	code for the program follows the guidelines given below					
1.	Add individual functions for each arithmetic calculation.					
2.	In case of Subtraction , a check is made to ensure that the result would be positive always					
3.	In case of division, a check is made to ensure that the result is not less than 1					
4.	Add a main function which would invoke the arithmetic functions after getting user inputs.					
	Sketch the control flow graph and find the cyclomatic complexity of the entire program					
A. 5						
B. 6						
C. 7						
D. 8						
		5				
11	_____ will provide a step-by-step guide for using the product under scenarios in a customer work place.	1	2	1.4.1		
A. User Training						
B. User Requirements						
C. User Maintenance						
D. User Validation						
		5				
12	_____ on the software product can make sure that the product will be useful even after environmental changes occur.	1	2	2.4.2		
A. Corrective Maintenance						
B. Adaptive Maintenance						
C. Preventive Maintenance						
D. Perfective maintenance						
		5				
13	_____ technique is most useful when nonexistent or sketchy documentation is available for the software product	1	2	2.4.1		
A. Reverse Engineering						
B. Reengineering						
C. Forward Engineering						
D. Software Engineering						
		5				
14	Even after thorough reviews and testing, the software product contains many defects when it goes into production. The software vendor instructs his maintenance team to create a patch to rectify them. A patch can be created to rectify those defects. Analyze the case and provide the type of maintenance needed.	1	2	1.4.1		
A. Corrective Maintenance						
B. Adaptive Maintenance						
C. Perfective Maintenance						
D. Preventive Maintenance						
		5				
15	Generally after a lapse of time, there are likely changes in business or operative environment, or there may be changes in hardware/software environment. Many of these changes can be perceived in advance and can be adopted. Which maintenance types is suitable for this case?	1	2	1.4.1		
A. Corrective Maintenance						
B. Adaptive Maintenance						
C. Perfective Maintenance						
D. Preventive Maintenance						
		5				
16	Which of these are not the functions performed by the Software Maintenance team?	1	5	1.4.1		
Δ 1 Locating information in system documentation						

B. Creating new documents				
C. Keeping system documentation up-to-date				
D. Finding the source of system failures or problems				
A program that is used in a real-world environment necessarily must change or become progressively-less useful in that environment. State the law	5			
17	A. Law of increasing complexity	1	3	33.1
B. Law of conservation of familiarity				
C. Law of continuing change				
D. Law of conservation of organizational stability				
method adapts by means of verifying that maintenance goals have been met; performance review to provide feedback to managers.	5			
*18	A. Reuse	1	2	1.4.1
B. Boehm's Model				
C. Osborne				
D. Iterative				
If the entire team of the project management has agreed on all the functionalities being implemented in the product as well as the required quality, which of the following phase will be preferred by team.	5			
19	A. Decision of alpha, beta version	1	2	1.4.1
B. Regular release				
C. Training to support staff				
D. Customer support strategy				
An organization has purchased ERP from its vendor. During the course of usage, some of the defects were identified like, not able to generate monthly reports, some quality attributes missing, some security issues, etc., Which maintenance model will you suggest for this case by analyzing the given scenario?	5			
20	A. Quick fix model	1	1	1.4.1
B. Boehm's model				
C. Osborne's model				
D. Iterative enhancement model				

PART-B (3x10 = 30)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
21(a)	Elaborate in detail Test Strategy and Planning with neat sketch. (Or)	10	4	2	2.4.2
21(b)	Explain the following in detail. (i) Risk Management (ii) Test Point Analysis	10	4	3	4.3.1
22(a)	Describe in detail about the Software Maintenance Life Cycle and explain about its functions (Or)	10	5	2	12.3.1
22(b)	Explain in detail about the Product Release Management with suitable example.	10	5	3	4.3.2
23(a)	Explain the following in detail. (i) Effort Estimation and its importance (ii) Software Testing in Iterative Model (Or)	10	4	1	14.1
23(b)	Categorize the Various types of Software Maintenance Model and explain its characteristics with example.	10	5	1	12.3.1



Sub Code/Name	18CSC205J-Operating Systems	Set	EVEN
Class	II Year / IV Sem / B.Tech CSE, AIML, CS, IOT, and BDA	Date	23.06.2022
Max Marks	50	Duration	90 Mins.

PART A (20 X 1= 20)
ANSWER ALL THE QUESTIONS

Q. No.	Questions	Mar ks	CO	BL	PI
1.	When a program tries to access a page that is mapped in address space but not loaded in physical memory, then what occurs a) page fault occurs b) fatal error occurs c) segmentation fault occurs d) no error occurs	1	4	1	4.4.1
2.	Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced? a) first in first out algorithm b) additional reference bit algorithm c) least recently used algorithm d) counting based <u>page replacement algorithm</u>	1	4	1	4.3.1
3.	Working set model for page replacement is based on the assumption of a) modularity b) locality c) globalization d) random access	1	4	1	4.3.1
4.	Applying the LRU page replacement to the following reference string. 1 2 4 5 2 1 2 4 The main memory can accommodate 3 pages and it already has pages 1 and 2. Page 1 came in before page 2. How many page faults will occur? a) 2 b) 3 c) 4 d) 5	1	4	1	4.3.1
5.	Which of the following page replacement algorithms suffers from Belady's Anomaly? a) Optimal replacement b) LRU c) FIFO d) Both optimal replacement and FIFO	1	4	1	4.3.1
6.	A process refers to 5 pages, A, B, C, D, E in the order : A, B, C, D, A, B, E, A, B, C, D, E. If the page replacement algorithm is FIFO, the number of page transfers with an empty internal store of 3 frames is? a) 8 b) 10	1	4	1	4.3.3

c) 9 d) 7	The aim of creating page replacement algorithms is to _____	1	4	1	4.3.1
7.	a) replace pages faster b) increase the page fault rate c) decrease the page fault rate d) to allocate multiple pages to processes	1	4	1	4.3.2
8.	A FIFO replacement algorithm associates with each page the _____ a) time it was brought into memory b) size of the page in memory c) page after and before it d) page recently used	1	4	1	4.3.2
9.	What is the Optimal page – replacement algorithm? a) Replace the page that has not been used for a long time b) Replace the page that has been used for a long time c) Replace the page that will not be used for a long time d) Replace the page that will big in size.	1	4	1	4.3.2
10.	Optimal page – replacement algorithm is difficult to implement, because _____ a) it requires a lot of information b) it requires future knowledge of the reference string c) it is too complex d) it is extremely expensive	1	4	1	4.3.1
11.	Defective sectors on a disk are often called as _____	1	5	1	5.4.1
12.	File type can be represented by _____ a) file name b) file extension c) file identifier d) file permission	1	5	1	5.4.1
13.	_____ is a sequence of procedures and functions.	1	5	1	5.4.1
14.	Which of the following is crucial time while accessing the data on the disks? a) seek time b) Rotational delay c) Transmission time d) Waiting time	1	5	1	5.4.1
15.	The _____ policy restricts scanning to one direction only. a) SCAN b) C-SCAN c) FCFS d) SSTF	1	5	1	5.4.1
16.	_____ are often used where very rapid access is required, where fixed length records are used, and where records are always accessed one at a time. a) Direct files b) Sequential files	1	5	1	5.4.1

	c) Indexed files d) Indexed sequential file				
17.	a) file organisation b) structural organisation c) physical organisation d) logical organisation refers to the logical structuring of records.	1	5	1	5.4.1
18.	The universe consists of _____ a) all users in the system b) all users that are not owners c) all users that aren't included in the group or owners d) all users that are included in group	1	5	1	5.4.1
19.	Virtual memory uses disk space as an extension of _____. a) secondary storage b) main memory c) tertiary storage d) cache memory	1	5	1	5.4.1
20.	_____ is series or collection of bits where each bit corresponds to a disk block. a) Bit Vector b) Array c) List d) Index	1	5	1	5.4.1

PART B (3 X 10 = 30)
ANSWER ALL THE QUESTIONS

Q. No.	Questions	Marks	C O	BL	PI
21	a) Explain in detail about thrashing and working set model OR b) Give a brief discussion about virtual memory and how OS handles the page fault effectively?	10	4	2	4.3.1
22	a) Consider a disk queue with requests for I/O to blocks on cylinders 98, 183, 41, 122, 14, 124, 65, 67. The head is initially at cylinder number 53. The cylinders are numbered from 0 to 199. What is the total head movement (in number of cylinders) incurred while servicing these requests for each of the following disk scheduling algorithms: i.FCFS ii. SSTF iii. SCAN iv. LOOK v. C-LOOK OR b) Explain the File system implementation and Directory implementation.	10	5	3	5.6.2
23	a) Consider a reference string: 4, 7, 6, 1, 7, 6, 1, 2, 7, 2. the number of frames in the memory is 3. Find out the number of page faults respective to: 1. Optimal Page Replacement Algorithm 2. FIFO Page Replacement Algorithm OR a) Explain the various Directory structure with advantages and disadvantages.	10	4	3	4.4.1



FACULTY OF ENGINEERING AND TECHNOLOGY
 DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
 CONTINUOUS LEARNING ASSESSMENT III

Sub Code/Name : 18CSC207J/Advance Programming Practice Set : EVEN
 Class : II Year B.Tech CSE with Specialization AIML,BDA,IOT,CS,CSBS Date : 24.06.22
 Max Marks : 50 Duration : 90 Mins

PART A (20x1=20)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1	What does the Thread.join() method do? a. Waits for the thread to finish b. Restricts access to a resource c. Adds the thread to a pool d. Merges two threads into one	1	4	2	1.3.1
2	It sets the lock state to locked. If called on a locked object, it blocks until the resource is free. a. lock() b. release() c. acquire() d. join()	1	4	2	2.4.4
3	Mention the correct syntax for creating Thread object for calling increment methods a. t1 = threading.Thread() b. t1 = threading.Thread(target) c. t1 = threading.Thread(target=incr) d. t1 = threading.Thr	1	4	1	2.4.4
4	Dependent Type is used to encode _____ like "for all" and "there exists". a. Logic Quantifiers b. Analyzing Quantifiers c. Dependent Quantifiers d. Functional Quantifiers	1	4	2	1.3.1
5	Notation for an Existential Quantifier: a. $\forall x P(x)$ b. $\Sigma P(x)$ c. $\emptyset x P(x)$ d. $\exists x P(x)$	1	4	1	2.2.4
6	Representation of the following statement: All leaves are Red a. $\exists x \text{leaves}(x) \rightarrow \text{red}(x)$ b. $\forall x \text{leaves}(x) \rightarrow \text{red}(x)$ c. $\Sigma \text{leaves}(x) \rightarrow \text{red}(x)$ d. $\text{red}(x) \rightarrow \exists x \text{leaves}(x)$	1	4	3	3.2.3
7	In UDP, Which among methods are used to receive messages at endpoint a. sock_object.recv() b. sock_object.send() c. sock_object.recvfrom() d. sock_object.sendto()	1	4	2	2.3.1

8	A pair (host, port) is used for the address family.	1	4	1	1.3.1
9	To create a socket, which function among the following is available in python socket module? a. socket.create() b. socket.initialize() c. socket.socket() d. socket.build()	1	4	3	2.4.4
10.	Which among methods are not server socket? a. connect() b. bind() c. listen() d. accept()	1	4	2	2.4.4
11.	Differentiate the Sympy Expression using the syntax a. diff(var,func) b. diff(func,var) c. diff(expr,var) d. diff(var,point)	1	5	3	1.3.1
12.	Limit the Sympy Expression using the syntax a. limit(var,func,point) b. limit(func,var,point) c. limit(func,var) d. limit(var,point)	1	5	3	2.3.2
13.	Finite state machines are used for a. Pseudo random test patterns b. Deterministic test patterns c. Random test patterns d. Algorithmic test patterns	1	5	2	1.3.1
14.	_____ is a class attribute defined by its source state and destination state. a. LGPL b. Scipy c. Transition d. State	1	5	2	2.1.2
15.	What kind of abstract machine can recognize strings in a regular set? a. DFA b. NFA c. PDA d. DFA,NFA	1	5	3	2.4.3
16.	In regular expressions, the operator '*' stands for----- a. Concatenation b. Addition c. Selection d. Iteration	1	5	1	1.3.1
17.	Identify the latest version of wxPython that supports both Python 2 and Python 3 a. wxPython b. Phoenix c. wxJython	1	5	3	2.2.4

	d. Sphinx				
18.	is used for grouping and organizing the widgets a. Menu b. Window c. Frame d. ListBox	1	5	2	1.3.1
19.	Essential thing to create a window screen using tkinter python? a. Call tk() function b. Create a button c. To define a geometry d. Create a Window	1	5	3	2.2.2
20.	Choose the correct output for the following code? <pre>import sympy as sym a= sym.Rational(4,6) print a</pre> a. 6/4 b. 0.66 c. 4/6 d. 1.5	1	5	3	3.4.2

PART B (3 X 10= 30)

ANSWER ALL THE QUESTIONS

Q. No.	Question	Marks	C O	B L	PI
21a	Define logic programming and its features in details with an example	10	4	1	2.4.4
	OR				
21b	Give a brief explanation about Client Server connection using UDP with an example	10	4	1	3.4.2
22a	Explain in detail about the algebraic manipulations and calculus and perform * expand, simplify, limits, differentiation , series, and integration with mathematical terms with the python code	10	5	2	2.4.4
	OR				
22b	Write a python Program to create an automata for Traffic Light	10	5	3	4.3.4
23a	Define socket, its types and write a python code to connect the Google using socket	10	4	2	3.4.2
	OR				
23b	Write a code using Tkinter(list box, button) widgets to create a daily task reminder that allows the user to add and delete entries	10	6	3	5.3.2



SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
RAMAPURAM CAMPUS
FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CHEMISTRY
CYCLE TEST- III



Sub Code/Name : 18CYM101T/ENVIRONMENTAL SCIENCE Set : A
 Class : II B.Tech Date :
 Max Marks : 50 Duration : 90 min

PART A (20x1= 20)
ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
1	_____ is the process by which the wastes are reshaped or cut into small pieces a) Composting b) Shredding c) Hydroclaving d) Incineration	1	4	1	1.2.1
2	Landfills should be located at least _____ feet above the water table. a) 5 b) 10 c) 15 d) 20	1	4	1	1.2.1
3	The practice of recovering organic waste by converting it to mulch is termed as----- a) Gardening b) Composting c) Recycling d) Recover	1	4	1	1.2.1
4	Which of the below is oldest method of waste disposal? a) Microwave treatment b) Landfill c) Chemical disinfection d) Autoclaving	1	4	1	1.2.1
5	What plan should we make to the disposal of solid waste? a) Integrated waste management plan b) Recycling of waste management plan c) Reducing of waste management plan d) Use of waste management plan	1	4	2	1.2.1
6	How does organic material in the buried solid waste will decompose? a) By the action of oxidation b) By the action of microorganisms c) By the flow of water d) By the soil particles	1	4	1	1.2.1
7	Waste type not to be incinerated if _____ a) Moisture content below 30% b) content of combustible matter above 60% c) content of non-combustible solids below 5% d) Pressurized gas containers	1	4	1	1.2.1
8	One of the most effective forms of hazardous waste disposal is a) Landfills b) deep-well injection c) Incineration d) surface impoundments	1	4	1	1.2.1
9	Volume reduction and energy recovery are the advantages of _____ the waste. a) Incinerating b) Open dumping c) Microwave treatment d) Chemical disinfection	1	4	2	1.2.1
10	____ emission is cited as an issue from incineration. a) Carbon b) Dioxin c) Sulphur d) Nitrogen	1	4	2	1.2.1
11	Human anatomical waste belongs to _____ of biomedical waste. a) Category-3 b) Category-4 c) Category-1 d) Category-2	1	5	1	1.2.1
12	Which is true about Biomedical Waste Management? a) Chemical waste b) bio & Infectious waste c) rubbish d) Agricultural waste	1	5	1	1.2.1

13	Identify the correct definition of an antiseptic: a) Chemical that kill or prevent infection and damage living tissues b) Chemical that kill or prevent infection without damaging living tissues c) Chemical that can only kill or prevent infection on non-living tissues d) Chemical that can only kill or prevent infection on animal housing	1	5	2	1.2.1
14	The disposal method which involves direct steam contact with biomedical waste is called _____. a) Microwaving b) Autoclaving c) Incineration d) Hydroclaving	1	5	1	1.2.1
15	Which biomedical waste belong to Category-4 ? a) Animal wastes b) Waste sharps c) Incinerated ash d) Discarded medicine	1	5	1	1.2.1
16	Devices with physical characteristics capable of puncturing, lacerating, or otherwise penetrating the skin are called _____. a) Sharps b) Cytotoxic drugs. c) Genotoxic Drugs d) Catheters	1	5	1	1.2.1
17	_____ colour bins & containers are used to segregate animal & human anatomical waste a) Yellow b) Red c) Blue d) Black	1	5	1	1.2.1
18	What is the process flow of an integrated Biomedical waste management system? a) Generation-Source-identification-segregation-collection-transport-Treatment & Disposal b) Segregation/collection- transport-Treatment & Disposal-Generation Source identification c) Treatment & Disposal- Generation Source identification-segregation/collection- transport d) Transport-Treatment & Disposal- Generation Source identification- segregation/collection	1	5	2	1.2.1
19	Vaccinating centers are the sources of _____. a) Municipal Waste b) Biomedical waste c) Domestic waste d) Non-domestic waste	1	5	1	1.2.1
20	Compressed air, O ₂ , anaesthetic gases are health care gases are stored in _____. a) Bottles b) Boxes c) Pressurized containers d) Thin films	1	5	1	1.2.1

Part B
Answer all questions (3 x 10 = 30 marks)

Q.No.	Question	Marks	CO	BL	PI
21	a. Discuss in detail about the types and characteristics of solid wastes. (OR) b. Discuss the modes of collection and transportation of solid waste.	10	4	2	1.2.1
22	a. Write about the different categories of biomedical wastes. (OR) b. Discuss about the requirements for storage of biomedical waste.	10	5	2	1.2.1
23	a. Discuss the effects of improper solid waste management. (OR) b. Write about the different modes of disposal of biomedical wastes.	10	4	2	1.2.1
		10	5	2	

G197b

CONTINUOUS ASSESSMENT -III

18MAB204T-Probability and Queueing Theory

Year :II

Branch: CSE & IT

Time: 8.30-10.00 am.

Semester :IV
Date: 20.06.2022
Max.Marks: 50 Marks

Part - A(20×1=20 Marks)
Answer ALL Questions

Q.No.	Question	Marks	CO	BL	PI
1	The value of test statistic for F distribution is (a) $F > 1$ (b) $F < 1$ (c) $F = 1$ (d) $F = 0$	1	4	1	1.1.1
2	Chi square distribution is used to (a) Test the mean of two small samples (b) Test the mean of two large samples (c) Test the goodness of fit (d) Test the variance of two populations	1	4	2	1.1.2
3	In Chi square test, the number of degrees of freedom in Poisson distribution is (a) $n-2$ (b) $n-3$ (c) $n-4$ (d) $n-1$	1	4	1	1.1.2
4	In Queueing system, the number of services per unit time always follows ----- distribution. (a) poisson (b) exponential (c) binomial (d) normal	1	4	1	1.1.1
5	In the queue model (a/b/c : d/e), 'd' stands for (a) queue discipline (b) system capacity (c) service time (d) number of servers	1	4	1	1.1.2
6	If $\lambda = \frac{1}{13}$ and $\mu = \frac{1}{4}$ in (M/M/1) : (∞ /FCFS) then the expected number of customers in the system is (a) 0.3324 (b) 0.4444 (c) 0.3434 (d) 0.7454	1	4	2	1.2.1
7	The relation between $E(N_s)$ and $E(N_q)$ is (a) $L_s = L_q + \frac{\lambda}{\mu}$ (b) $L_s = L_q - \frac{\lambda}{\mu}$ (c) $E(N_s) = E(N_q) + \frac{1}{\mu}$ (d) $E(N_s) = E(N_q) + \lambda\mu$	1	4	2	1.2.1

	The test statistic of Chi square test is				
8	(a) $\chi^2 = \sum_i \frac{(O_i - E_i)^2}{E_i}$ (b) $\chi^2 = \sum_i \frac{(O_i - E_i)^2}{O_i}$ (c) $\chi^2 = \sum_i (O_i - E_i)$ (d) $\chi^2 = \sum_i \frac{(O_i - E_i)^2}{2}$	1	4	1	1.1.2
9	The average waiting time of a customer in the (M/M/1) : (x/FIFO) system is a) $\frac{1}{\mu - \lambda}$ b) $\frac{\lambda}{\mu - \lambda}$ c) $\frac{\mu}{\mu - \lambda}$ d) $\frac{\mu}{\mu + \lambda}$	1	4	2	1.1.1
10	If the arrival and departure rates in a M/M/1 queue are 1/2 per minute and 2/3 per minute respectively, then the average waiting time of a customer in the queue is (a) 4 min (b) 5 min (c) 3.5 min (d) 4.5 min	1	4	2	1.2.1
	A square matrix, in which the sum of all the elements of each row is one is called a				
11	(a) unitary matrix (b) diagonal matrix (c) stochastic matrix (d) skew matrix	1	5	1	1.1.1
12	The conditional probability $P[X_n = a_j / X_{n-1} = a_i]$ is called (a) second step transition probability (b) one-step transition probability (c) homogeneous (d) n-step transition probability	1	5	1	1.1.2
13	If the one-step transition probability does not depend on the step $p_{ij}(n-1, n) = p_{ij}(m-1, m)$ then the markov chain is called (a) stationary chain (b) discrete chain (c) homogeneous Markov chain (d) regular Markov chain	1	5	2	1.1.1
14	State i of a Markov chain is said to be ----- with period d_i if $d_i = 1$ (a) periodic (b) cyclic (c) aperiodic (d) biperiodic	1	5	2	1.2.1
15	A state i is said to be ----- if the mean recurrence time μ_{ii} is finite. (a) persistent (b) non persistent (c) transient (d) non null persistent	1	5	1	1.1.2
16	If every state can be reached from every other state, then the Markov chain is said to be (a) homogeneous (b) reducible (c) irreducible (d) recurrent	1	5	2	1.2.1
17	A state i is said to be ----- if the return to state i is certain. (a) persistent (b) non persistent (c) ergodic (d) periodic	1	5	1	1.2.1
18	If $\pi P = \pi$, where $P = \begin{pmatrix} 0 & 1 \\ 1/2 & 1/2 \end{pmatrix}$ then the value of (π_1, π_2) is (a) $(1/3, 2/3)$ (b) $(1/2, 1/2)$ (c) $(2/3, 1/3)$ (d) $(0, 1)$	1	5	2	1.1.1
19	A State i of a Markov chain is said to be an absorbing state if $P_{ii} =$ (a) ∞ (b) 2 (c) 0 (d) 1	1	5	1	1.1.1
20	The limiting probability $\lim_{n \rightarrow \infty} P^n =$ (a) 1 (b) P (c) ∞ (d) -1	1	5	2	1.1.2

Part - B (3x10=30 Marks)
Answer ALL Questions

Q.No.	Question	Marks	CO	BL	PI																
21	<p>(a) Two independent samples of sizes 5 and 6 gave the following data:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Sample I</td> <td>21</td> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>-</td> </tr> <tr> <td>Sample II</td> <td>22</td> <td>27</td> <td>28</td> <td>30</td> <td>31</td> <td>36</td> </tr> </table> <p style="text-align: center;">Test whether the samples are drawn from the same normal population.</p> <p style="text-align: center;">(OR)</p> <p>(b) Customers arrive at a watch repair shop according to a Poisson process at a rate of one per every 10 minutes and service time is an exponential random variable with mean 8 minutes.</p> <ul style="list-style-type: none"> (i) Find the average number of customers L_s in the shop. (ii) Find the average time a customer spends in the shop W_s. (iii) Find the average time that a customer spends in the queue W_q. (iv) Find the average number of customers in the queue L_q. (v) What is the probability that the server is idle? 	Sample I	21	24	25	26	27	-	Sample II	22	27	28	30	31	36	10	4	3	2.1.3		
Sample I	21	24	25	26	27	-															
Sample II	22	27	28	30	31	36															
22	<p>(a) The transition probability matrix of a Markov chain $\{x_n\}$, $n = 1, 2, 3, \dots$ having 3 states 1, 2 and 3 is $P = \begin{bmatrix} 0.1 & 0.5 & 0.4 \\ 0.6 & 0.2 & 0.2 \\ 0.3 & 0.4 & 0.3 \end{bmatrix}$ and the initial distribution is $p^{(0)} = (0.7, 0.2, 0.1)$</p> <p>Find</p> <ul style="list-style-type: none"> (i) $P(X_2 = 3)$ (ii) $P(X_3 = 2, X_2 = 3, X_1 = 3, X_0 = 2)$ <p style="text-align: center;">(OR)</p> <p>(b) Two boys B_1 and B_2 and two girls G_1 and G_2 are throwing a ball from one to the other. Each boy throws the ball to the other boy with probability $\frac{1}{2}$ and to each girl with probability $\frac{1}{4}$. On the other hand, each girl throws the ball to each boy with probability $\frac{1}{2}$ and never to the other girl. In the long run, how often does each receive the ball?</p>	10	5	3	2.4.3																
23	<p>(a) Fit a binomial distribution for the following using Chi Square test</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>X</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>Y</td> <td>5</td> <td>18</td> <td>28</td> <td>12</td> <td>7</td> <td>6</td> <td>4</td> </tr> </table> <p style="text-align: center;">(OR)</p> <p>(b) The three state Markov chain is given by transition probability matrix</p> $P = \begin{bmatrix} 0 & \frac{2}{3} & \frac{1}{3} \\ \frac{1}{2} & 0 & \frac{1}{2} \\ \frac{1}{2} & \frac{1}{2} & 0 \end{bmatrix}$ <ul style="list-style-type: none"> (i) Classify the states of the Markov Chain. (ii) Find the steady state distribution of the chain. 	X	0	1	2	3	4	5	6	Y	5	18	28	12	7	6	4	10	4	3	2.4.1
X	0	1	2	3	4	5	6														
Y	5	18	28	12	7	6	4														
		10	5	4	2.4.3																



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Department of CDC
Cycle Test-I - (SET - A)

Sub. Code: 18PDH103T
Sub. Title: SOCIAL ENGINEERING

Answer all the questions
Part - A (5X 1 = 5 marks)



Year/Sem: II/ IV
Marks: 25

1. Social Engineering is to bring about a -----

- a) Sudden social change
- b) Planned social change
- c) Conscious change
- d) Unprecedented change

2. Karl Popper advocates -----

- a) Utopian Social Engineering
- b) Large Scale Social Engineering
- c) Piece Meal Social Engineering
- d) Spontaneous change

3. "The idea that human beings choose, instigate, or otherwise cause their own actions"- defines

- a) Personal awareness
- b) Social responsibility
- c) Personal responsibility
- d) Moral responsibility

4. Social change that indicates specific change on a large scale

- a) Alternative Social change
- b) Reformatory Social change
- c) Revolutionary Social change
- d) Redemptive Social change

5. 'I can recognize my value and advocate for my rights'- relates to which profile of personal awareness

- a) Profile 2
- b) Profile 3
- c) Profile 5
- d) Profile 4

✓ GP

Part - B (2X4 = 8 marks)
Answer Any 2 Questions

6. Discuss the differences between the Two types of Social Engineering as analysed by Karl Popper.

7. What is PPCI? Give an account of any 2 facets of Personal awareness.

8. Briefly explain the types of Social change.

Part - C (IX12 = 12marks)

9. What is Social change? Explain the various features and the causes of Social Change

OR

10. a. Explain the types of Responsibilities with examples. (6)

b. Identify any major Social movement that happened in India in the last decade and explain its role in bringing a social change. (6)

b

Arivu

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FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CONTINUOUS LEARNING ASSESSMENT-1

Sub Code/Name : 18CSC206J – SOFTWARE ENGINEERING & PROJECT MANAGEMENT
 Class : II Year / IV Sem / B.Tech (CSE, AIML, IOT, BDA, CS)

Date : Duration : 60 mins
 Max Marks : 25

PART A (5x1= 5)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1.	Identify the major drawback of using RAD Model. a) Highly specialized & skilled developers/designers are required b) Increases reusability of components c) Encourages customer/client feedback d) Increases reusability of components, Highly specialized & skilled developers/designers are required	1	1	2	2.8.3
2.	The Incremental Model is a result of combination of elements of which two models? a) Build & FIX Model & Waterfall Model b) Linear Model & RAD Model c) Linear Model & Prototyping Model d) Waterfall Model & RAD Model	1	1	1	2.6.2
3.	List the four framework activities are found in the Extreme Programming (XP). a) analysis, design, coding, testing b) planning, analysis, design, coding c) planning, design, coding, testing d) planning, analysis, coding, testing	1	1	1	2.5.2
4.	The SCM provides mechanisms and data structures to accommodate change management effectively. The collection of procedures and tasks that define an effective approach to change management for all constituencies involved in the management, engineering and use of computer software. a) Component elements b) Process elements c) Human elements d) Construction elements	1	1	1	2.5.2
5.	A company is developing an advance version of their current software available in the market, what model approach would they prefer. a) RAD b) Iterative Enhancement c) Both RAD & Iterative Enhancement d) Spiral	1	1	1	2.6.3

PART B (2x4= 8)

ANSWER ANY TWO QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
6..	What is the need for software project management?	4	1	2	2.5.1
7.	List the different types of risk.	4	1	1	1.7.1
8.	Neatly Sketch V Process model.	4	1	1	2.5.2

PART C (1x12= 12)

ANSWER THE FOLLOWING

Q.No.	Question	Marks	CO	BL	PI
9a.	Explain in detail the following s/w process models with a neat diagram. i) Evolutionary process model. ii) Incremental Process model. (OR) 9b. Changes take place at any time during software engineering process. Demonstrate the processes involved in software configuration management	12	1	2	1.7.1
9b.		12	1	3	2.5.2



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CYCLE TEST- 1



1400

Q5

Sub Code/Name: 18CSC2073/Advanced Programming Practice Set : A
 Class : II/IV CSE Date : /04/22
 Max Marks : 25 Duration : 1 Hr

PART A (5x1= 5)
ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1	is the first successful high-level programming language. A) C Program B) Fortran C) COBOL D) Anime	1	1	1	1.6.1
2	What block does this code represent? <pre>i = 1 while True: print(i) i = i + 1 if(i > 5): break</pre> A) Process Block B) Test first Loop Block C) Test Last Loop block D) Decision Block	1	1	3	1.7.1
3	What is the output of the following code? <pre>def f0(): global s print s s = "Python Section" print s # Global Scope s = "Python is great!" f0() print s</pre> A) Python section B) Python section C) Error: local variable 's' referenced before assignment D) Python is great Python section	1	1	3	1.7.1

Which of the following best defines a class?

- A) Parent of an object
- B) Instance of an object
- C) Blueprint of an object
- D) Scope of an object

1	1	1	1.6.1
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What will be the output of the following C code?

```
a=1
while a==1:
    print("Hello World!")
    a+=1
```

- A) Hello is printed once
- B) Hello infinite number of times
- C) Hello is not printed at all
- D) Exception is thrown

1	1	3	1.7.1
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PARTB(2x4= 8)
ANSWER ANY TWO QUESTIONS

Q.No.	Question	Marks	C O	BL	PI
6.	Write a program to implement Fibonacci series using python.	4	1	3	3.5.6
7.	Write any three features of OOPS. Give example.	4	1	1	1.7.1
8.	Write a program, that prompts the user to enter the number of students and each student's score, and displays the highest and second highest scores.	4	1	3	3.5.6

PARTC(1x12= 12)
ANSWER ANY TWO QUESTIONS

Q.No.	Question	Marks	C O	BL	PI
9.	(a) Explain in detail about the Features of object-oriented programming with example (OR) (b) Write a python program to get square and cube of a number using inheritance concept.	12	1	1	1.7.2
		12	1	2	3.5.6

FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CONTINUOUS LEARNING ASSESSMENT-I

Sub Code/Name: 18CSC204J / DESIGN AND ANALYSIS OF ALGORITHMS Set : EVEN
 Class : II Year / IV Sem / B.Tech (CSE, AIML, IOT, CSBS.CS, BDA) Date:
 Max Marks : 25 Duration: 60 Mins

PART-A (5x1=5)

ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
1	When determining the efficiency of algorithm, the space factor is measured by A. Counting the maximum memory needed by the algorithm B. Counting the minimum memory needed by the algorithm C. Counting the average memory needed by the algorithm D. Counting the maximum disk space needed by the algorithm	1	1	2	2.5.2
2	Two main measures for the efficiency of an algorithm are A. Processor and memory B. Complexity and capacity C. Time and space D. Data and space	1	1	1	2.5.2
3	The complexity of Bubble sort algorithm is _____ A. O(n) B. O(log n) C. O(n ²) D. O(n log n)	1	1	3	2.5.3
4	The worst-case occur in linear search algorithm when A. Item is somewhere in the middle of the array B. Item is not in the array at all C. Item is the last element in the array D. Item is the last element in the array or item is not there at all	1	1	2	2.8.3



5	The correctness and appropriateness of _____ can be checked very easily. A. algorithmic solution B. heuristic solution C. random solution D. Brute force Solution	1	1	1	2.6.3
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PART -B (2x4= 8 Marks)

ANSWER ANY TWO QUESTIONS

Q.No.	Questions	Marks	CO	BL	PI
6.	Write an algorithm for adding 'n' natural numbers and give its time and space complexity	4	1	1	1.7.1
7.	What is time and space complexity?	4	1	1	1.7.1
8.	Write a note on Recurrence relation.	4	1	1	2.6.3

PART- C (1x12= 12 Marks)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
9.	a)i)Solve the following recurrence equation using backward substitution method $t_n=nt_{n-1}$ with initial condition $t_0=1$. ii) Mention the steps that need to be followed while designing and analysing algorithm. OR b) Explain the Insertion Sort algorithm and identify its running time using step count and operation count.	6 6 12	1 1 1	3 2 2	2.5.3 2.5.2 2.5.3

CONTINUOUS LEARNING ASSESSMENT - I

Sub Code/Name : 18CSS2023- Computer Communications Set : A
Year / Sem / Dept : II Year / IV / B. Tech- CSE (ALL streams), EEE Date: 12.04.22
Max Marks : 25 Duration: 60 mins

PART A (5 x 1 = 5 Marks)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1.	In _____ switched network, there is no resource reservation; resources are allocated on demand. A. Circuit B. Packet C. Message D. Simplex	1	1	1	1.3.1
2	Data link layer does not perform which of the following tasks? A. framing B. error control C. flow control D. channel coding	1	2	1	1.3.1
3	Is a central controller or hub required in which network topology? A. Star B. Mesh C. Ring D. Bus	1	2	3	2.3.1
4.	The easiest way to interactively transfer data in a time-sharing network is A. Simplex lines B. Half-duplex lines C. Full-duplex lines D. Biflex-line	1	1	2	1.3.1
5.	In asynchronous serial communication the physical layer provides, a) start and stop signaling b) flow control c) both start & stop signaling and flow control d) No start bit and stop bit	1	1	2	1.4.1

PART-B (2x4= 8 marks)

ANSWER ANYTWO QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
6.	For 'n' devices in a network, design a diagram with the number of cable links required for a mesh, ring, bus, and star topology?	4	2	3	2.1.3
7.	Explain the network that covers geographic areas like district or cities.	4	1	1	1.4.1
8.	Compare OSI and TCP/IP model.	4	2	2	1.2.1

Part-C (1 x 12 = 12 Marks)

Answer the Question

Q.No.	Question	Marks	CO	BL	PI
9a	a) Explain the functions of Network layer and Data link layer with a necessary diagram. b) Define transmission mode and its types	8 4	2 1	2 1	1.4.2 1.2.1
(OR)					
9b	a) Describe the different types of switching techniques with suitable diagram. b) Explain, why is parallel data usually faster than serial data?	8 4	1 2	1 2	2.4.1 1.4.3


CYCLE TEST- 1

Sub Code/Name : 18CYM101T/ENVIRONMENTAL SCIENCE Set : B

Class : B. Tech Date :

Max Marks : 25 Duration : 1 hr

PART – A (5x1= 5)
ANSWER ALL THE QUESTIONS

Q. No.	Question	Marks	CO	BL	PI
1	Soil component of the earth is called _____. a) Hydrosphere b) Atmosphere c) Lithosphere d) Biosphere	1	1	1	1.2.1
2	Necrosis disease of plants is due to _____ pollutant. a) NO ₂ b) CO c) SO ₂ d) O ₃	1	1	1	1.2.1
3	Ozone layer filters _____ radiation from sun. a) Alpha b) UV c) Beta d) IR	1	1	2	1.2.1
4	Which pollutant affects the oxygen transport in blood? a) CO ₂ b) CO c) PAN d) O ₃	1	1	1	1.2.1
5	One chlorine atom can destroy over _____ ozone molecules. a) 1,00,000 b) 10,000 c) 1000 d) 100	1	1	2	1.2.1

PART – B (2x4= 8)
ANSWER ANY TWO QUESTIONS

Q.No.	Question	Marks	C O	BL	PI
6	Define Environmental segments.	4	1	1	1.2.1
7	Explain about Particulate pollutants.	4	1	2	1.2.1
8	Describe the composition of atmosphere.	4	1	2	1.2.1

PART- C (1x12= 12)
ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	C O	BL	PI
9	a. Explain the various sources, effects and control measures of water pollution. (or) b. (i) Define Greenhouse gases and its effects.(6) (ii) Explain ozone layer depletion. (6)	12	1	2 2	1.2.1

CONTINUOUS ASSESSMENT – I

18MAB204T – Probability and Queueing Theory

Year : II
 Branch: CSE & IT
 Time: 8.30 - 9.30 am

Semester : IV
 Date:
 Max.Marks: 25Marks

Part – A(5×1=5 Marks)
Answer ALL Questions

Q.No.	Question	Marks	CO	BL	PI
1	Var(4X + 8) is (a) 12.Var(X) (b) 4.Var(X) + 8 (c) 16.Var(X) (d) 16.Var(X) + 8	1	1	2	1.3.1
2	The relation between Variance and Standard deviation is ----- (a) $Var = S.D^2$ (b) $Var = \sqrt{S.D}$ (c) $Var - S.D = 0$ (d) $Var = \sqrt[3]{S.D}$	1	1	1	1.1.1
3	If X is a random variable and r is an integer, then $E(X^r)$ represents (a) r^{th} moment about mean (b) r^{th} factorial moment (c) r^{th} moment about origin (d) moment generating function	1	1	1	1.1.1
4	The expectation of the number which turns up when a die is thrown (a) $\frac{1}{2}$ (b) $\frac{7}{2}$ (c) 1 (d) 6	1	1	2	1.3.1
5	Let X be a random variable with mean μ , variance σ^2 and $k > 0$. Then Tchebycheff's inequality is ----- (a) $P[X - \mu \geq k\sigma] \leq \frac{1}{k^2}$ (b) $P[X - \mu > k\sigma] = 1 - \frac{1}{k^2}$ (c) $P[X - \mu < k\sigma] = \frac{1}{k^2}$ (d) $P[X - \mu > k\sigma] = \frac{1}{k^2}$	1	1	1	1.1.1

Part – B (2×4=8 Marks)
Answer any Two Questions

Q.No.	Question	Marks	CO	BL	PI												
6	A random variable X has the following probability function: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td></tr> <tr> <td>P(x)</td><td>k</td><td>2k</td><td>5k</td><td>7k</td><td>9k</td></tr> </table> Find (i) k (ii) $P(X \leq 3)$	x	0	1	2	3	4	P(x)	k	2k	5k	7k	9k	4	1	3	2.2.3
x	0	1	2	3	4												
P(x)	k	2k	5k	7k	9k												
7	Let X be a random variable with probability density function $f(x) = \begin{cases} 3x, & 0 < x < 1 \\ 0, & \text{Otherwise} \end{cases}$. Find the probability density function of $Y = 4X + 3$.	4	1	2	2.1.3												
8	If a random variable has the moment generating function $M_X(t) = \frac{2}{2-t}$, determine the mean & Variance of X.	4	1	4	2.1.3												

Part – C (1 × 12 = 12 Marks)
Answer Any one question

Q.No.	Question	Mark s	CO	BL	PI																		
	(a) A discrete random variable X has the probability function given below: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr> <td>P(x)</td><td>0</td><td>k</td><td>2k</td><td>2k</td><td>3k</td><td>k^2</td><td>$2k^2$</td><td>$7k^2 + k$</td></tr> </table> Find (i) the value of k (ii) $P(1.5 < X < 4.5 / X > 2)$ (iii) the cumulative distribution function of X (iv) the smallest value of λ for which $P(X \leq \lambda) > \frac{1}{2}$	x	0	1	2	3	4	5	6	7	P(x)	0	k	2k	2k	3k	k^2	$2k^2$	$7k^2 + k$	12	1	3	2.1.3
x	0	1	2	3	4	5	6	7															
P(x)	0	k	2k	2k	3k	k^2	$2k^2$	$7k^2 + k$															
9.	(OR) (b) The probability density function of a continuous random variable X is given by $f(x) = \begin{cases} ax & ; 0 \leq x < 1 \\ a & ; 1 \leq x < 2 \\ 3a - ax & ; 2 \leq x < 3 \\ 0 & ; \text{otherwise} \end{cases}$ Find (i) 'a' (ii) $P(X < 1.5)$ (iii) Cumulative distribution function	12	1	4	2.1.3																		

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FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
CONTINUOUS LEARNING ASSESSMENT-1

Sub Code/Name: 18CSC205J – Operating Systems **Set** : ODD

Class : II Year / IV Sem / B.Tech (CSE, AIML,IOT,BDA,CS)

Date : .04.2022

Max Marks : 25 **Duration** : 60 mins

PARTA (5x1= 5)

ANSWER ALL THE QUESTIONS

Q.No.	Question	Marks	CO	BL	PI
1	To access the services of the operating system, the interface is provided by the _____ a) Library b) System calls c) Assembly instructions d) API	1	1	1	1.6.1
2	If a process fails, most operating system write the error information to a _____ a) new file b) another running process c) log file d) history file	1	1	2	1.2.2
3	In a timeshare operating system, when the time slot assigned to a process is completed, the process switches from the current state to? a) Suspended state b) Terminated state c) Ready state d) Blocked state	1	1	3	2.7.1
4	The portion of the process scheduler in an operating system that dispatches processes is concerned with _____ a) assigning ready processes to waiting queue b) assigning running processes to blocked queue c) assigning ready processes to CPU d) assigning running processes to waiting queue	1	1	2	1.2.2
5	In Unix, which system call creates the new process? a) create b) fork c) new d) pipe	1	1	1	3.2.1

PARTB (2x4= 8)
ANSWER ANY TWO

Q.No.	Question	Marks	CO	BL	PI
6.	Define Process. What is the various process state?	4	1	1	2.6.2
7.	Determine the actions taken by a kernel to context switch between processes.	4	1	3	2.6.1
8.	Explain Critical Section Problem. Give an example.	4	1	2	2.5.1

PART C (1x12= 12)

Q.No.	Question	Marks	CO	BL	PI
9.	A) Explain the Evolution of Operating Systems. (or) B) Describe the Operations:Process creation and Process termination. Also specify the system calls used in Process creation and termination.	12	1	2	2.6.3
-		12	1	1	3.7.1



**FACULTY OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
CONTINUOUS LEARNING ASSESSMENT II**

Sub Code/Name : 18CSS202J Computer Communications Set : A
Class : II Year / IV Sem/ B.Tech CSE All Streams Date :
Max Marks : 50 Duration : 90 mins

PART A (20x1= 20)

ANSWER ALL THE QUESTIONS

Q.No	Question	Marks	CO	BL	PI
1	Select the size of IP address in IPv4 a) 4bytes b) 128bits c) 8bytes d) 100bits	1	2	1	1.3.1
2	Name the important concept in network addresses? a) Routing b) Mask c) IP Addressing d) Classless Addressing	1	2	1	1.4.1
3	Choose from the following. In classful addressing, a large part of available addresses are? a) Organized b) Blocked c) Wasted d) Communicated	1	2	1	1.3.1
4	Select the operating layers of bridge a) Physical & Data-link layers b) Datalink-Network layers c) Network & Transport layers d) Transport & Session layers	1	2	1	1.3.1
5	Which of the following is not a class of classful addressing a) Class E b) Class C c) Class D d) Class F	1	2	1	1.4.1
6	Select the IP address which belongs to class A? a) 121.12.12.248 b) 130.12.12.248 c) 128.12.12.248 d) 129.12.12.248	1	2	1	1.4.1
7	Find the device that helps to prevent congestion and data collisions a) Switch b) Hub c) Gateway d) Proxy Server	1	2	1	1.4.1
8	Find the device that is used to connect a number of LANs a) Router b) Repeater c) Bridge d) Switch	1	2	1	1.3.1
9	Name the concept used to divide a large IP network in smaller IP networks a) Supernetting b) Subnetting c) classful addressing d) classless addressing	1	2	1	1.3.1
10	Select the operating layer of a hub a) Physical layer b) Datalink layer c) Network layer d) Transport layer	1	2	1	1.3.1
11	Select from the following. Pulse used to represent Polar NRZ a) High in data is represented by a positive pulse b) High in data is represented by a negative pulse c) Low in data is represented by a positive pulse d) High in data is represented by a zero pulse	1	3	1	1.3.1
12	Name the polarities used in NRZ format a) Complete pulse duration b) Half duration c) Both positive as well as negative value d) Each pulse is used for twice the duration	1	3	1	1.3.1
13	Which of the following is not a guided media? a) Fiber optical cable	1	3	1	1.3.1

	b) Coaxial cable c) Wireless LAN d) Copper wire			
14	List the number of concentric copper conductors in coaxial cable a) 1 b) 2 c) 3 d) 4	1	3	1 1.3.1
15	Name the conversion in Delta modulation a) Analog to digital b)Digital to analog c) ADC and DAC d) Analog to Discrete	1	3	1 1.3.1
16	Which of the following modulation technique is used in most modern modems for digital to analog modulation? a) ASK b) FSK c)PSK d)QAM	1	3	1 1.4.1
17rate is the number of bits per second andrate is the number of signal elements per second a)baud; bit b)bit; baud c)baud; base d)base; baud	1	3	1 1.3.1
18	Tell the type of modulation used in OOK a) FSK b)PSK c)ASK d)QAM	1	3	1 1.3.1
19	Find the line coding schemes whose output is represented by wide half bit pulse? a)Bipolar RZ b)Unipolar RZ c)RZ-AMI d) Manchester coding	1	3	1 1.3.1
20	Find the dimensions used in QAM - a)In phase b) Quadrature c)In phase & Quadrature d) Out Phase	1	3	3 1.3.1

PART B (3x10= 30)

ANSWER THE FOLLOWING QUESTIONS

Q.No	Question	Mar ks	CO	R L	PI
21(a)	An organization is granted with a IP address 192.16.2.0/24. The administrator wants to create 4 subnets. (Using class C address) Calculate the following. (i). Find the subnet mask (ii). No of hosts in each subnet (iii). First and last host addresses of each subnet. (iv). Network and broad cast address of each subnet.	10	2	3	2.4.1
	(Or)				
21(b)	Discuss the classful addressing with relevant examples	10	2	3	2.4.1
22(a)	Explain the technique used in ASK and FSK	10	3	2	2.4.1
	(Or)				
22(b)	Sketch the various guided media used for data transmission in computer networks.	10	3	3	2.4.1
23(a)	Define the router and explain its functionalities in detail	10	2	2	2.4.1
	(Or)				
23(b)	Explain in detail about TDM and FDM	10	3	2	2.4.1