R22

H. T. No. | 1 | 6 | 0 | 1 | 2 | 2 | 7 | 3 | 3 | 1 | 9 | 3 |

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E. (Department of CSE)

SUBJECT: Software Engineering (22CSC21)

Class Test-I (Common to CSE, AI&DS, IT)

Date:-18-09-2024 **Time: 11:30 AM to 12:30 PM**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

		SECTION - A	**3 X 2 = 06M**		
1		Enlist any two features of Rapid Application Development (RAD) Model.	CO-1	L1	[2M]
2		Differentiate Functional Requirements from Non-Functional Requirements.	CO-2	L2	[2M]
3		What are the causes of inaccurate estimates?	CO-3	L1	[2M]
		SECTION - B	**2x7=14M**		
4	a	With a neat sketch explain software Process Framework.	CO-1	L2	[4M]
	b	Illustrate prototyping model with a neat diagram.	CO-1	L2	[3M]
		OR			
	a	Define Interoperable. And explain its significance in	CO-1	L2	[4M]
	b	List the disadvantages of the Formal Methods Model.	CO-1	L1	[3M]
6	a	Explain various steps in eliciting the Requirements.	CO-2	L2	[3M]
	b	List out and explain functional and non-functional requirements of a Bank ATM.	CO-2	L3	[4M]
		OR			
7	a	What are the various means to track progress of project? Give details.	CO-3	L2	[3M]
	b	Explain different strategies for staffing a software project.	CO-3	L2	[4M]

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Prepared By: T. Suvarna Kumari, Asst. Prof., Department of CSE

H. T. No. | 1 | 6 | 0 | 1 | 2 | 2 | 7 | 3 | 3 | 1 | 4 | 3 |

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

Department of Information Technology

Class Test II -Examination, Date: 22/11/2024 Time: 10:30AM to11:30 AM

SEMESTER: B.E V Sem common to CSE,IT and AI&DS

SUBJECT: Software Engineering(22CSC21) **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

SECTION – A **06M**

1		What is software sizing and why is it important in project estimation.	CO3 [L1]	[2 M]
2		Differentiate between coupling and cohesion.	CO4 [L2]	[2 M]
3		Describe about the validation testing and system testing.	CO5 [L2]	[2 M]

2x7=14M

SECTION – B

4	a	Discuss the COCOMO Model in Software Project estimation.	CO3 [L2]	[3 M]
	b	Explain taxonomy of architectural styles in software design.	CO4 [L2]	[4 M]
		OR		
5	a	Explain LOC based and FP based estimation methods with examples.	CO3 [L2]	[3 M]
	b	Define Flow oriented modelling. Construct Detailed Dataflow diagram for ATM system.	CO4 [L2]	[4 M]
6	a	Explain the strategic approach to software testing and its significance.	CO5 [L2]	[4 M]
	b	Describe the techniques involved in Formal technical reviews.	CO5 [L1]	[3 M]
		OR		
7	a	Explain Basis Path testing with example.	CO5 [L3]	[4 M]
	b	Describe the role of Software quality in Software engineering.	CO5 [L2]	[3 M]

Paper set by: Dr B.Veera Jyothi, Dr S.Rakesh IT Dept. and Mrs.Anjum Nabi Sheikh AI&DS Dept

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A),
BE (CSE, AI&ML), V-Semester I- MID Examinations, Se
OPERATING SYSTEMS (22CS
Time: 1 hour
Answer the follow
Date: 17-09-20

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H. T. No. | 1 | 6 | 0 | 1 | 2 | 2 | 7 | 3 | 3 | 1 | 9 | 3 |

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

Gandipet, Hyderabad -75

B.E. (Department of CSE /CET)

SUBJECT: OPERATING SYSTEMS (22CSC15N)

Class Test-II

Date: 21.11.2024 **Time: 10:30 AM to 11:30 AM**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

SECTION - A

3 X 2 = 06M

1	What is the purpose of page tables in paging?	CO3	BL2	[2M]
2	What are the necessary conditions for a deadlock?	CO4	BL3	[2M]
3	What is an inode, and what information does it store in a Unix/Linux file system?	CO 5	BL2	[2M]

SECTION - B

2x7=14M

4	a	Apply LRU and Optimal page Replacement algorithms on the following reference string 1, 2, 3, 4, 1, 2, 3, 4, 2, 1, 3, 4 by considering 3 frames and calculate the total number of page faults for both algorithms.	CO3	BL3	[4M]
	b	What is synchronization? Explain the Dining-Philosophers problem.	CO4	BL3	[3M]

OR

5	a	Apply the shortest seek time first (SSTF) and SCAN, disk scheduling algorithms on the following sequence of disk requests and calculate total head movement: 68, 78, 42, 93, 35, 82 Assume initial position of head is at 40.	CO3	BL3	[4M]
	b	Write the difference between user-level threads and kernel-level threads. Provide one advantage and one disadvantage of each.	CO4	BL3	[3M]

6 Consider the following snapshot of a system: CO4 BL4 [7M]

Process	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P_0	0	0	1	2	0	0	1	2	1	5	2	0
P_1	1	0	0	0	1	7	5	0				
P_2	1	3	5	4	2	3	5	6				
P_3	0	6	3	2	0	6	5	2				
P_4	0	0	1	4	0	6	5	6				

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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A), HYDERABAD-75
BE (CSE, AI&ML), V-Semester I- MID Examinations, Sept-2024

OPERATING SYSTEMS (22CSC15N)
Date: 17-09-2024; 11.30 to 12.30N

Time: 1 hour
Max Marks: 20

Answer the following Questions

		CO	BT	Marks
	PART-A			
1	We have stressed the need for an operating system to make *efficient use* of computing hardware. When it is appropriate for the operating system to forsake this principle and to "waste" resources? Why is such a system not really wasteful?	1	3	2M
2	Under what circumstances CPU scheduling decisions take place in a system?	2	2	2M
3	Name two differences between logical and physical addresses?	3	1	2M
	PART-B			
4	a. What is an operating system? Discuss about various types of operating systems? Give one example for each type.	1	2	4M
	b. Describe some of the challenges designing operating systems for mobile devices compared with designing operating systems for traditional PCs?	2	2	3M
	OR			
5	a. Distinguish between the *kernel* and *user mode* function of operating system? Which of the following instructions should be privileged? i) Loading the base and limit registers ii) Issue a trap instruction iii) Modify entries in device-status table iv) Read the clock	1, 2, 3	3	3M
	b. What the different approaches used to design operating systems?	1	2	2M
	c. Distinguish between internal and external fragmentation.	3	2	2M
6	a. Let's consider the following set of processes, with the length of the CPU burst time given in milliseconds and the processes are assumed to have arrived in the order P_1, P_2, P_3, P_4:	2	3	4M

Process	Arrival Time	Burst Time	Priority
P_1	0	5	2
P_2	0	2	1
P_3	0	7	2
P_4	0	6	3

i. Draw the Gantt charts that illustrates the execution of processes using Priority and RR scheduling algorithms (time quantum =2). 2M

ii. Which scheduling algorithm is better in terms of throughput? 2M

b. What is RPC? List the steps involved in RPC? Also list the challenges associated with RPC. 2 2 3M

OR

7 a. Let's consider that there are 3 processes P1, P2, P3 the process times 20, 30, 10 respectively. Each process uses the first 30% of its process time in CPU, then 50% in I/O, and the last 20% in CPU. Find the *average wait time, turn-around-around time* and *response time* if system follows Shortest Job First scheduling? 2, 3 3, 5M

b. What are the different dynamic memory allocation methods? In terms of *time* and *storage utilization*, which one allocation method is best? 2 2M

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Paper set by: Prof. M. Swamy Das, Dept. of CSE.

R22

H. T. No. 1 6 0 1 2 2 7 3 3 1 9 3

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E./ B. Tech (Department of CSE/ Common to CSE, CSE-AIML, AI&ML)

SUBJECT: DESIGN AND ANALYSIS OF ALGORITHMS (22CSC14N)

Class Test-I

Date: 18-09-2024 **Time:3:00 PM to 4:00PM**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only **3 X 2 = 06M**

SECTION - A

1	Calculate the time complexity $T(n)=2T(n/2) + n/\log n$ using Master's Theorem	CO1	BL3	[2M]
2	You are working on a data compression project where you need to efficiently encode a set of text messages. The text messages consist of the characters and their probabilities as given below. Using Huffman encoding, generate the Huffman code for each character	CO2	BL3	[2M]
3	Explain the following terms with an example in backtracking using state space tree-Live Node, E-Node, Dead Node	CO2	BL2	[2M]

Letters	A	B	C	D	E	F	G
Probabilities	0.154	0.11	0.072	0.063	0.059	0.015	0.011

SECTION - B **2x7=14M**

4	a	Solve the following recurrence relation to find the time complexity $T(n)=7T(n/3) + n^2$ using substitution method with $T(1)=1$	CO1	BL3	[3M]
	b	Explain Asymptotic notations in algorithm analysis with appropriate diagram or example	CO1	BL2	[4M]
		OR			
5	a	Develop algorithm for Min-Max problem using divide and conquer approach	CO3	BL3	[3M]
	b	Explain strassen's matrix multiplication and its time complexity	CO3	BL2	[4M]
6	a	Define Principle of Optimality. Explain how dynamic programming approach is suitable to solve Matrix Chain Multiplication problem.	CO4	BL3	[3M]
	b	Find the Longest Common Subsequence (LCS) from the given two strings S1= ABCABCABC and S2= BABACBAB. Identify the Length of the LCS and String.	CO3	BL3	[4M]
		OR			
7	a	Describe Iterative Control Abstraction for backtracking	CO2	BL2	[3M]
	b	Define N Queen's problem. Explain all possible solution for 4 queens' problem.	CO3	BL3	[4M]

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Prepared By: A Sangeetha, Asst. Prof. CSE Department

H. T. No.

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E. / B. Tech (Department of AIML / Common to AIML, CSE_AIML and CSE)

SUBJECT: DESIGN AND ANALYSIS OF ALGORITHMS [22CSC14N]

Class Test-II

Date: 22 /11/2024 Time: 2.00 PM to 3.00 PM

SEMESTER: V SEM Max. Marks: 20

Answer ALL questions. All parts of the questions must be answered at one place only

3 X 2 = 06M

SECTION - A

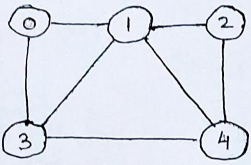
1.	Describe Iterative Control Abstraction for Branch and Bound.	CO3	BL1	[2M]
2.	Define Bi-connected and Strongly Connected Components.	CO4	BL1	[2M]
3.	Write the Non Deterministic algorithm for searching.	CO5	BL1	[2M]

SECTION - B

2x7=14M

Describe Hamiltonian cycle and draw the Hamiltonian cycle for the below graph using backtracking.

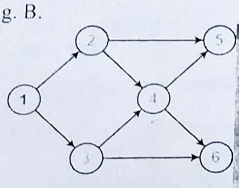
4 a

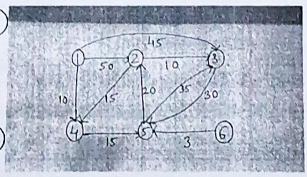


CO3 BL1 [3M]

Define Topological sorting and write the topological sort for the Fig.A. Explain Dijkstra's algorithm and find the shortest path for the Fig. B.

b





CO4 BL1 [4M]

Fig. A Fig. B

(P.T.O)

OR

5	a	Consider the following instance of the 0/1 knapsack problem n=4,(p1,...p4)=(10,10,12,18) (w1,....w4)=(2,4,6,9) and m=15. Solve the problem using LCBB.	CO3	BL3	[3M]
	b	Explain Kosaraju's Algorithm to determine strongly connected components	CO4	BL1	[4M]
6	a	Define P, NP, NP-hard and NP complete classes. Draw the relation between them.	CO6	BL4	[3M]
	b	Prove that the Clique problem is NP Complete.	CO6	BL2	[4M]

OR

7	a	Prove that the sum of subset is NP-Complete.	CO5	BL2	[3M]
	b	Show that the Vertex-cover problem is NP-Complete.	CO6	BL2	[4M]

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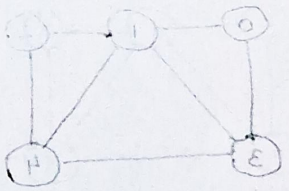
Prepared By: Dr.G.Narayana, Assoc.Prof. & Ms. Falak Naaz, Asst.Prof. Dept. of AI&ML.



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160122733193 Code No.: 22CSC14N

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)

B.E. / B.Tech (CSE /CSM / AI&ML) V Sem (Main) Examination December 2024

Design and Analysis of Algorithms

Time: 3 Hours **Max Marks: 60**

Note: Answer **ALL** questions from **Part-A** at one place in the same order and **Part–B (Internal Choice)**

Part - A

(5Q X 2M = 10 Marks)

		M	CO	BT
1	Distinguish between Algorithm and Pseudocode.	(2)	1	4
2	Discuss the terms feasible solution, optimal solution and objective functions with example	(2)	2	2
3	Describe the time complexity of the graph coloring problem using back tracking.	(2)	3	2
4	Define bi-connected components.	(2)	2	2
5	Distinguish between NP hard and Np complete.	(2)	6	4

Part - B

(5Q X 10M = 50 Marks)

			M	CO	BT
6	(a)	Explain the general method of divide and conquer approach.	(5)	2	2
	(b)	Describe the Pseudo code conventions for specifying algorithms of recursive and an iterative algorithm to compute n!	(5)	2	2
		(OR)			
7	(a)	For T (n)=7T(n/2)+18n^2 Solve the recurrence relation and find the time complexity.	(5)	1	2
	(b)	Estimate the time complexity using f(n) and g(n) functions in asymptotic notations.	(5)	1	2
8	(a)	Evaluate the effectiveness of the greedy approach in solving the 0/1 knapsack problem. Compare its outcome to the optimal solution obtained using dynamic programming with an example	(5)	4	3
	(b)	Apply dynamic programming to find the optimal order of multiplying 3 matrices A_{5X25}, B_{25X10}, C_{10X15}.	(5)	3	3
		(OR)			
9	(a)	Develop algorithm to insert more number of jobs in feasible solution set J={} to maximize the profit using greedy method?	(3)	3	2
	(b)	Apply dynamic programming to obtain optimal binary search tree for the identifier set (a1, a2, a3, a4)=(cin, for, int, while) with (p1, p2, p3, p4)=(1, 4, 2, 1), (q0, q1, q2, q3, q4)=(4, 2, 4, 1, 1) and also write algorithm for its construction.	(7)	3	3
10	(a)	What is a Hamiltonian Cycle? Explain how to find Hamiltonian path and cycle using backtracking algorithm.	(5)	3	2

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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E. / B. Tech (Department of CSE)

SUBJECT: Big Data Analytics (22ADE12) PE- 1

Class Test-I(Common to CSE 1 CSE2&CSE 3 ,V Sem)

Date: 19-09-2024 **Time: 11:30AM to 12:30 PM**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

		SECTION - A	**3 X 2 = 06M**		
1		State the Building Blocks of Bigdata	CO-1	B-1	[2M]
2		What are the two main functions of the `Reducer` in the MapReduce process?	CO-2	B-3	[2M]
3		Why Apache Spark is Popular to handle the Bigdata state its components.	CO-3	B-2	[2M]
		SECTION - B	**2 x 7 = 14M**		
4	a	Explain HDFS Architecture with its functionality	CO-1	B-2	[4M]
	b	Explain the concept of block size in HDFS.	CO-1	B-1	[3M]
		OR			
5	a	Explain the role of Job tracker and Task tracker with Map Reduce Architecture	CO-1	B-3	[4M]
	b	What is HDFS Federation	CO-1	B-3	[3M]
6	a	Discuss how Pig handles data processing and provide an example of generating data using Pig.	CO-2	B-1	[4M]
	b	Compare the query processing of Hive with traditional databases.	CO-2	B-3	[3M]
		OR			
7	a	Explain Apache Spark Ecosystem	CO-3	B-1	[4 M]
	b	Contrast, Batch Processing Real Time Processing and discuss Spark supports which kind of Processing.	CO-3	B-3	[3 M]

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Prepared By: Dr D Raman, Professor , Department of CSE

Dr G Vanitha, Assoc Professor , Department of CSE

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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E. / B. Tech (Department of CSE)

SUBJECT: Big Data Analytics (22ADE12) PE- 1

Class Test-II (Common to CSE 1 CSE2&CSE 3 ,V Sem)

Date:23-11-2024 **Time: 10:30AM to 11:30 AM**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

SECTION - A **3 X 2 = 06M**

1		What is RDD, Explain the purpose ?	CO-4	B-1	[2M]
2		List the libraries and API's used for SPARK machine learning	CO-3	B-2	[2M]
3		What is EOS explain the role of EOS in stream processing	CO-5	B-2	[2M]

SECTION - B **2 x 7 = 14M**

4	a	Explain the architecture of RDD with operators, actions and transformations	CO-4	B-2	[4M]
	b	What are the SPARK execution modes	CO-3	B-1	[3M]
		OR			
5	a	Discuss the steps in SPARK processing and obtaining features from data using machine learning	CO-3	B-3	[3M]
	b	Explain SPARK SQL Architecture with Operations	CO-4	B-3	[4M]
6	a	Write about Graph X operators used in SPARK	CO-4	B-1	[3M]
	b	Discuss Apache Kafka Architecture	CO-5	B-3	[4M]
		OR			
7	a	Write a Case study with the steps involved in Streaming data	CO-5	B-1	[4 M]
	b	Explain the of building a recommendation system with Spark and SparkML analytics	CO-4	B-3	[3 M]

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Prepared By: Dr D Raman, Professor , Department of CSE

Dr G Vanitha, Assoc Professor , Department of CSE

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Code No.: 22ADE12

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)

B.E / B.Tech (CSE) V Sem (Main) Examination December 2024

Big Data Analytics

Time: 3 Hours **Max Marks: 60**

Note: Answer **ALL** questions from **Part-A** at one place in the same order and **Part–B (Internal Choice)**

Part - A

(5Q X 2M = 10 Marks)

		M	CO	BT
1	Define in brief about the Hadoop Stack for Big Data.	(2)	1	1
2	Define about querying data in Hive.	(2)	2	2
3	Explain in brief about spark SQL.	(2)	3	2
4	Define in brief spark GraphX.	(2)	4	1
5	Explain in brief about stream processing.	(2)	5	2

Part - B

(5Q X 10M = 50 Marks)

			M	CO	BT
6	(a)	Explain in detail with diagram about the architecture of HDFS.	(5)	1	1
	(b)	Explain about the working of MapReduce. Give MapReduce example.	(5)	1	2
		(OR)			
7	(a)	Explain in detail about the block replication architecture and replication method in HDFS.	(5)	1	2
	(b)	Illustrate the Command-Line Interface of Hadoop. Write the syntax of Five commands used in Hadoop CLI.	(5)	1	3
8	(a)	Explain about Pig Latin, user defined functions and data processing operators.	(5)	2	2
	(b)	Explain about HiveQL, user defined functions and aggregate function.	(5)	2	1
		(OR)			
9	(a)	Perform comparison of traditional database and Hive.	(5)	2	3
	(b)	Explain about Pig, generating examples, and comparison with database.	(5)	2	1
10	(a)	Explain in detail about the fundamentals of Scala and functional programming.	(5)	3	2
	(b)	Define how to run spark SQL queries, tables, views, databases and select statement.	(5)	3	3
		(OR)			
11	(a)	Explain about the creation of DataFrames and DataFrames operations in spark SQL.	(5)	3	2
	(b)	Define spark concepts, resilient distributed dataset and creating RDDs.	(5)	3	1
12	(a)	Explain about designing ML system for obtaining, processing and preparing data with spark.	(5)	4	2

R22

Code No.: 22ADE12

	(b)	Define graphs on machine learning landscape, graph structured data and PageRank.	(5)	4	2
		(OR)			
13	(a)	Explain about building a classification model with spark.	(5)	4	3
	(b)	Explain about property graph, graph operators and distributed graphs.	(5)	4	2
14	(a)	Explain in detail about spark structured streaming API and discuss a use case using spark streaming.	(5)	5	2
	(b)	Explain in detail about Apache Kafka fundamentals.	(5)	5	3
		(OR)			
15	(a)	Define about exactly-once semantics, kafka transactions and tiered storage.	(5)	5	2
	(b)	Define real-time analytics use-case of fraud detection with Kafka.	(5)	5	3

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R22

H. T. No. 1 6 0 1 2 2 7 3 3 1 9 3

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

B.E. / B. Tech Department of Artificial Intelligence and Data Science

(22ITC10) COMPUTER NETWORKS

(CSE, IT and AI&DS)

Class Test-II

Date: 17-09-2024 (AN) **Time: 1 hour**

SEMESTER: V **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

3 X 2 = 06M

SECTION - A

1		What is the principle difference between connectionless communication and connection-oriented communication?	CO1	L2	[2M]
2		The following data fragment occurs in the middle of a data stream: **A B ESC C ESC FLAG FLAG D**. What is the output after byte stuffing?	CO2	L3	[2M]
3		List any two disadvantages of Flooding?	CO3	L2	[2M]

SECTION - B **2x7=14M**

4	a	*Illustrate about TCP/IP reference model with a neat diagram.*	CO1	L4	[4M]
	b	*Explain how different types of networks are classified based on their scale.*	CO1	L2	[3M]

OR

5	a	Apply your understanding of the OSI reference model by describing the functionality of each layer.	CO1	L3	[4M]
	b	Compare and contrast between the twisted pair wires and optical fiber cable as guided media for computer communications.	CO1	L4	[3M]
6	a	A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is $x^3 + 1$. Show the actual bit string transmitted. Suppose the third bit from the left is inverted during transmission. Show that this error is detected at the receiver's end.	CO2	L3	[4M]
	b	Illustrate about design issues of the network layer.	CO3	L2	[3M]

OR

7	a	Analyze the differences between Pure ALOHA and Slotted ALOHA?	CO2	L4	[4M]
	b	What is shortest path routing? Explain Dijkstra's algorithm for shortest path with example.	CO3	L2	[3M]

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Prepared By: Dr. Kadiyala Ramana, Associate Professor

QP Code: 22 ITC 10

H. T. No. | 1 | 6 | 0 | 1 | 2 | 2 | 7 | 3 | 3 | 193 |

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

Class Test 2 - Examination, Date: 21/11/2024 **Time: 2pm to 3pm**

SEMESTER: V **SUBJECT: CN**

B.E. / B. Tech (Common for CSE and IT & AI&DS

Time: 1Hour. **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

SECTION - A

06M

1		Discuss network Layer Design issues.	BL1	CO3	[2M]
2		How does process to process communication works?.	BL2	CO4	[2M]
3		What is the Purpose of DNS?.	BL2	CO5	[2 M]

SECTION - B

2x7=14M

4	a	Explain the Distance Vector routing protocol with an example.	BL2	CO3	[4 M]
	b	Distinguish IPV4 to IPV6.	BL3	CO3	[3M]
		OR			
5	a	How TCP protocol Works?.Explain the types of TCP protocols.	BL3	CO4	[4M]
	b	What is Congestion?. Explain any congestion control mechanism.	BL2	CO4	[3 M]
6	a	Clearly narrate Email. What are the protocols used in Email?.	BL2	CO5	[3 M]
	b	Why do you think firewalls are indispensable in Networks?.	BL5	CO5	[4 M]
		OR			
7	a	Discuss the following: i) DHCP ii) and RTCP	BL3	CO4	[4 M]
	b	Compare FTP to TFTP and SFTP.	BL4	CO5	[3 M]

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** Paper set by **B Ramadasu** Assistant Professor. CSE, CBIT, Hyd-75

R22

160122733193

Code No.: 22ITC10

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)

B.E./B.Tech V Sem (Main) Examination December – 2024

(Common to CSE/IT/AI&DS)

Computer Networks

Time: 3 Hours **Max Marks: 60**

Note: Answer **ALL** questions from **Part-A** at one place in the same order and **Part–B (Internal Choice)**

Part - A
(5Q X 2M = 10 Marks)

		M	CO	BT
1	How does a twisted pair cable reduce interference?	(2)	1	3
2	Why is error detection important in the Data Link Layer?	(2)	2	2
3	What is Network Address Translation (NAT)?	(2)	3	1
4	What are two essential elements of a transport protocol?	(2)	4	1
5	What is a domain resource record in the context of DNS?	(2)	5	1

Part - B
(5Q X 10M = 50 Marks)

			M	CO	BT
6	(a)	Define the following network topologies: bus, ring, star, and mesh. Provide one example of where each might be used.	(5)	1	1
	(b)	How would you analyze the four layers of the TCP/IP reference model and explain the role of each layer in facilitating communication across networks?	(5)	1	3
		(OR)			
7	(a)	Discuss the advantages of fiber optic cables? Explain with a neat sketch.	(5)	1	2
	(b)	Identify the functions of the physical and data link layers in the OSI model.	(5)	1	1
8	(a)	How would you apply the process of framing in the Data Link Layer to differentiate between various types of data, and what techniques could be used to implement this process effectively?	(5)	2	3
	(b)	Explain the concept of Carrier Sense Multiple Access (CSMA) and its variants.	(5)	2	3
		(OR)			
9	(a)	Explain how the cyclic redundancy check (CRC) technique detects errors in transmitted data. Provide an example of how CRC works in practice.	(5)	2	3
	(b)	Explain the operation of the Go-Back-N protocol in reliable data transmission.	(5)	2	1
10	(a)	Discuss the design issues in the Network Layer of the OSI model?	(5)	3	2
	(b)	Analyze how flooding works and why it can lead to inefficiencies in a network.	(5)	3	4
		(OR)			

H. T. No. 1 6 0 1 2 2 7 3 3 1 9 3

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

Date: 19-09-2024 **Class Test I - Examination** **Time: 03:00 PM – 04:00 PM**

SEMESTER: V SUBJECT: **Disaster Risk Reduction Management (22CEO02)**

B.E. / B. Tech (Computer Science and Engineering)

Time: 1Hour. **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

		SECTION - A		**3x2=6M**	
1		Define hazard and disaster.	CO1	[2M]	BT1
2		Discuss institutions responsible for disaster risk reduction	CO2	[2M]	BT2
3		Describe stress management	CO3	[2M]	BT2
		SECTION - B		**2x7=14M**	
4	a	Explain in detail about human induced disasters.	CO1	[3M]	BT2
	b	Write in detail about causes and impacts of floods.	CO1	[4M]	BT2
		OR			
5	a	Explain how natural eco systems are affected by disaster.	CO1	[4M]	BT2
	b	Outline various types of disasters	CO1	[3M]	BT2
6	a	Explain disaster management cycle and its structure in detail.	CO2	[7M]	BT2
		OR			
7	a	Elaborate the role of early warning systems in disaster management.	CO2	[7M]	BT2

H. T. No. | 1 | 6 | 0 | 1 | 2 | 2 | 7 | 3 | 3 | 1 | 7 | 3 |

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

Gandipet, Hyderabad -75

II Mid - VI Semester Examination, Date:23.11.24, 2pm to 3 pm

SUBJECT: Disaster Risk Reduction Management (22CE002)

B.E. (Department of Computer Science & Engineering)

Time: 1 hour **Max. Marks: 20**

Answer ALL questions. All parts of the questions must be answered at one place only

		SECTION - A	**BT**	**3x2=06M**		
1		Outline importance of awareness generation strategies	2	CO 3	[2M]	
2		What is the role of NIDM in disaster management	1	CO 4	[2M]	
3		Differentiate between structural and non structural measures	1	CO 5	[2M]	
		SECTION - B		**2x7=14M**		
4	a	Discuss various awareness campaigns at International Level and Regional Level in the context of Disaster management.	3	CO 3	[3M]	
	b	Explain in detail about role of civic volunteers in disaster risk reduction	2	CO 4	[4M]	
		OR				
5	a	Elaborate about awareness generation strategies for flood disasters	3	CO 3	[3M]	
	b	Describe in detail about various components of disaster management	2	CO 4	[4M]	
6		Discuss any four targets of the UN Sendai Framework.	2	CO 5	[7M]	
		OR				
7		Describe disaster management guidelines for the preparation of the national and state disaster management plans.	2	CO 5	[7M]	

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Prepared by:

R22

160122733193

Code No.: 22CEO02

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (Autonomous)

B.E / B.Tech (CSE) V Sem (Main) Examination December 2024

Disaster Risk Reduction and Management

Time: 3 Hours **Max Marks: 60**

Note: Answer **ALL** questions from **Part-A** at one place in the same order and **Part–B (Internal Choice)**

Part - A

(5Q X 2M = 10 Marks)

		M	CO	BT
1	What is a Disaster?	(2)	1	1
2	Define disaster risk reduction.	(2)	2	1
3	List out any three impacts of disaster on children.	(2)	3	1
4	What is the role of GIS in disaster management?	(2)	4	1
5	What is mitigation?	(2)	5	1

Part - B

(5Q X 10M = 50 Marks)

			M	CO	BT
6	(a)	Illustrate the classification of hazards in details.	(5)	1	2
	(b)	What do you understand by flood? Discuss it types.	(5)	1	1
		(OR)			
7	(a)	Discuss the economical, ecological and social impact of droughts.	(5)	1	3
	(b)	Enlist and describe three man-made disasters.	(5)	1	2
8	(a)	Explain structural and non-structural measures for disaster risk reduction.	(5)	2	2
	(b)	What is disaster management? Discuss mitigation strategies and preparedness for disaster risk reduction.	(5)	2	3
		(OR)			
9	(a)	Write a case study on disaster risk reduction in India.	(5)	2	3
	(b)	Discuss in detail on the four basic elements and types of early warning systems.	(5)	2	3
10	(a)	What are the first aid and emergency procedures during disasters?	(5)	3	1
	(b)	What is a traumatic stressor? Who are the potential victims of a traumatic stressor?	(5)	3	1
		(OR)			
11	(a)	Briefly explain the stress management in disaster situations.	(5)	3	2
	(b)	Explain the awareness generation strategies for the community on safe practices during disaster.	(5)	3	4
12	(a)	Brief about the roles and functions of NDMA.	(5)	4	4
	(b)	Explain in detail about the application of Management Information System (MIS) and databases in disaster management.	(5)	4	2
		(OR)			

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute | Affiliated to Osmania University

COMMITTED TO RESEARCH, INNOVATION AND EDUCATION

46 years

HALL TICKET

ORIGINAL

B.E V Sem (Main) R22 Exams November 2024

CSE

Hall Ticket No: 160122733193

Name: MOHAMMED SAJID

Father's Name: ABDUL NUHU

Time: 10.00 AM TO 1.00 PM

Date	Subject Code	Registered Subjects
03/12/2024	22ITC10	Computer Networks
05/12/2024	22CSC15	Operating Systems
07/12/2024	22CSC21	Software Engineering
09/12/2024	22CSC14	Design and Analysis of Algorithms
11/12/2024	22ADE12	Big Data Analytics (PE-II)
18/12/2024	22CEO02	Disaster Risk Reduction and Management (OE-II)
	22CSC23	Case Tools Lab
	22CSC18N	Operating Systems Lab
	22ITC11	Computer Networks Lab

Chaitanya Bharathi Institute of Technology Gandipet Hyderabad-75

Signature of Student

COE