Institute Level Elective
(Common for All Branches)

Academic Year 2023-2024

Continuous Assessment: Term Test – I
B.E. (Semester VIII)

Duration: 1 hour **Maximum Marks: 25**

Project Management (DJ19ILO8021)

Instructions:
1. Read the questions carefully.
2. All questions are compulsory except internal options.
3. Draw neat sketches wherever necessary.

Q.No.	Question	Bloom's Level	CO Mapped	Max. Marks
1.	Elaborate on the concept of project life cycle and its various phases.	Understanding	CO1	**07**
2.	How do functional, pure project, and matrix organizational structures differ, and what are the advantages of each? **OR** Explore the function of project managers in negotiating and resolving conflicts within project contexts.	Understanding	CO1	**06**
3	Elaborate on different non-numeric models used for project selection, providing an example for each. **OR** What is a project portfolio process? Explain different steps involved in this.	Understanding	CO2	**07**
4	A 5-year financial project has net cash flows of ₹25,000; ₹30,000; ₹28,000; ₹30,000 and ₹55,000 in the next 5 years. It will cost ₹95,000 to implement the project. If the required rate of return is 0.25, conduct a discounted cash flow calculation to determine the NPV and interpret the result.	Analysis	CO2	**05**

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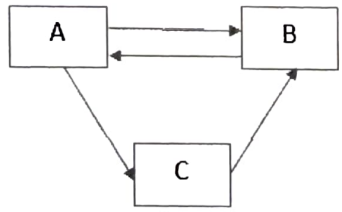
Department of Computer Engineering
A.Y. 2023-24(Even Semester)
Continuous Assessment: Term Test – I

Max. Marks: 25	**Duration: 1 Hr.**
Class: B.Tech Computer	**Semester: VIII**
Course: Web Intelligence	**Course Code: DJ19CE801**
Program: Final Year B.Tech in Computer Engineering	**Date:04/3/2024 Time: 12.30-1.30 PM**

Instructions: (If any)
(1) Please solve questions in order with clear and dark ink pens.
(2) Assume suitable data whenever/wherever applicable.

Q. No.	Question Description	CO	Blooms Taxonomy	Marks
Q.1 (a)	Explain the following terms: **(ANY ONE)** a) Latent Semantic Indexing b) Web Spamming	1	Understand	5
Q.2 (a)	Compute Efficient PageRank with the damping factor d=0.85 for web. Initial Page Rank=1 Iteration= (0,1,2) 	2	Apply	10
	OR			
Q.2 (b)	Explain web Crawling with its types.	2	Understand	10
Q.3 (a)	Explain Wrapper Induction technique for data extraction.	3	Understand	10
	OR			
Q.3 (b)	Explain Instance-Based Wrapper Learning.	3	Understand	10

********** **All the best** **********

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Department of Computer Engineering
A.Y. 2023-24 (Even Semester)
Continuous Assessment: Term Test – I

Max. Marks: 25	**Duration: 1 Hr.**
Class: Final year	**Semester: VIII**
Course: High Performance Computing	**Course Code: DJ19CEC802**
Program: B. Tech. in Computer Engineering	**Date: 05th March 2024**

Instructions:
(1) Assume suitable data, if necessary.

Q. No.	Question Description	CO	Blooms Taxonomy	Marks
Q.1 (a)	Explain levels of parallelism.	CO1	Understand	8
	OR			
Q.1 (b)	Explain Flynn's architectural scheme.			

Q.2 (a)	Explain Pipelining and Superscalar Execution with example.	CO2	Understand	8
	OR			
Q.2 (b)	Explain various parameters to evaluate memory system performance and different approaches to hide memory latency.			

Q.3	Explain Amdahl's Law and solve following. 95% of a program's execution time occurs inside a loop that can be executed in parallel. What is the maximum speedup expected from a parallel version of the program executing on 8 CPUs?	CO4	Apply	9

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Academic Year 2023-2024

Department of Computer Engineering

Continuous Assessment: Term Test – I

B. Tech (Semester VIII)

Max. Marks: 25 **Duration: 1 Hr.**

Class: A & B **Semester: VIII**

Course: Natural Language Processing **Course Code: DJ19CEEC8011**

Program: Computer Engg.

Q. NO		Bloom's Level	CO covered	Marks
Q1	Explain different phases of NLP.	Understand	1	05
Q2	Explain Morphological Parsing with FST. Explain with example add one smoothing.	Understand Understand	3 2	04 03
Q3	Consider following Training data: <s> I am Sam </s> <s> Sam I am </s> <s> Sam I like </s> <s> Sam I do like </s> <s> do I like Sam </s> Assume that we use a bigram language model based on the above training data. Identify is the most probable next word predicted by the model for the following word sequences? **i.** <s> Sam I am ii. <s> do I **OR** Explain Porter Stemmer with example.	Apply Understand	2 2	07 07
Q4	Consider the following Training corpus: <s> The/DT students/NN pass/V the/DT test/NN<\s> <s> The/DT students/NN wait/V for/P the/DT result/NN<\s> <s> Teachers/NN test/V students/NN<\s> Test data <s>The students wait for the test</s> Generate state Transition and Emission Probability Matrix. Apply POS Tagging using HMM.	Apply	4	06

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Department of Computer Engineering
A.Y. 2023-24 (Even Semester)
Continuous Assessment: Term Test – I

Max. Marks: 25	**Duration:** 1 Hr.
Class: Final Year (Honors)	**Semester: VIII**
Course: Intelligent Security Systems	**Course Code:** DJ19CEHN1C4
Program: Final Year B. Tech. in Computer Engineering (Honors)	

Instructions:
(1) All questions are compulsory.
(2) Check for internal options.
(3) Assume suitable data wherever required.

Q. No	Question Description	Bloom's Level	Marks
	Attempt any 2 out of the 3 Questions		
Q.1 A	Explain and illustrate Sybil attack and Sinkhole Attack in detail with proper examples.	Understand	05
Q.1 B	Explain and illustrate the architecture of a Fuzzy Logic System with a neatly labelled diagram.	Understand	05
Q.1 C	Explain and illustrate the ANN Architecture in detail. How can an ANN be used to improve the security of data flowing across a network? Share your views.	Understand	05
	Attempt any 1		
Q.2 A	Classify and summarize the firewalls based on their method of operation.	Analyze	08
	OR		
Q.2 B	Compare how a Screened Host Router is different from a Screened Subnet Router? Explain with neatly labelled diagrams.	Analyze	08
	Attempt any 1		
Q.3 A	Explain how the 4 typical IDS Topologies differ from each other in terms of their functions.	Understand	07
	OR		
Q.3 B	Illustrate and explain the timeline of the developments made in IDS/IPS technology chronologically.	Understand	07

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Institute Level Elective
(Common for All Branches)

Academic Year 2023-2024

Continuous Assessment: Term Test – II
B.Tech. (Semester VIII)

Duration: 1 hour **Maximum Marks: 25**

Project Management (DJ19ILO8021)

Instructions:

1. Read the questions carefully.
2. All questions are compulsory except internal options.
3. Draw neat sketches wherever necessary.
4. Use of statistical tables are allowed.

<table>
<tr><th>Q.No.</th><th>Question</th><th>Bloom's Level</th><th>CO Mapped</th><th>Max. Marks</th></tr>
<tr><td>1.</td><td>What is Gantt Chart? Explain with an example.
OR
Explain risk response strategies for positive risks.</td><td>Understanding</td><td>CO3</td><td>05</td></tr>
<tr><td>2.</td><td>Explain how a project is controlled and types of control processes.
OR
Explain project procurement process.</td><td>Understanding</td><td>CO4</td><td>05</td></tr>
<tr><td>3</td><td>The wind power plant project is set to be completed in 10 months with an estimated cost of Rs. 5,00,000. The project has been running for 5 months now, the team has spent Rs. 2,20,000 and completed an amount of work worth Rs. 2,55,000. Comment on the status of the project in terms of cost and schedule.</td><td>Apply, Analysis</td><td>CO4</td><td>06</td></tr>
<tr><td>4</td><td>A project has the following characteristics. Construct a network diagram and find the critical path.
<table>
<tr><th>Activity</th><th>Preceding Activity</th><th>Duration (Week)</th></tr>
<tr><td>A</td><td>-</td><td>2</td></tr>
<tr><td>B</td><td>-</td><td>3</td></tr>
<tr><td>C</td><td>A</td><td>2</td></tr>
<tr><td>D</td><td>B</td><td>3</td></tr>
<tr><td>E</td><td>B</td><td>2</td></tr>
<tr><td>F</td><td>C,D</td><td>3</td></tr>
<tr><td>G</td><td>C,D</td><td>2</td></tr>
<tr><td>H</td><td>C,D,E</td><td>7</td></tr>
<tr><td>I</td><td>C,D,E</td><td>5</td></tr>
<tr><td>J</td><td>H,F</td><td>6</td></tr>
</table>
OR</td><td>Apply, Analysis</td><td>CO3</td><td>09</td></tr>
</table>

(7)

A project has the following characteristics. Construct a PERT network. Find the critical path and variance for each event.

Activity	Most optimistic time	Most pessimistic time	Most likely time
1-2	1	5	1.5
2-3	1	3	2
2-4	1	5	3
3-5	3	5	4
4-5	2	4	3
5-7	4	6	5
6-7	6	8	7
7-8	2	6	4
7-9	5	8	6
8-10	1	3	2
9-10	3	7	5
4-5	3	7	5

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Continuous Assessment: Term Test – II

Max. Marks: 25	**Duration: 1 Hr.**
Class: B.Tech Computer	**Semester: VIII**
Course: Web Intelligence	**Course Code: DJ19CE801**
Program: Final Year B.Tech in Computer Engineering	**Date:22/04/2024 Time: 12.30-1.30 PM**

Instructions: (If any)

(1) Please solve questions in order with clear and dark ink pens.
(2) Attempt all the questions unless specified.
(3) Assume suitable data whenever/wherever applicable.

Q. No.	Question Description	CO	Blooms Taxonomy	Marks
Q.1 (a)	Draw and Explain Web Usage Mining Process.	5	Understand	5
Q.2 (a)	Explain Schema-Level Matching.	3	Understand	10
	OR			
Q.2 (b)	Explain Integration of Web Query Interfaces.	3	Understand	10
Q.3 (a)	List and explain the problems in Opinion Mining.	4	Understand, Remember	10
	OR			
Q.3 (b)	Explain Opinion Lexicon Expansion.	4	Understand	10

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Department of Computer Engineering

Continuous Assessment: Term Test – II
B. Tech (Semester VIII)

Max. Marks: 25 | **Duration: 1 Hr.**
Class: A & B | **Semester: VIII**
Course: Natural Language Processing | **Course Code: DJ19CEEC8011**
Program: Computer Engg.

Q. No	Questions	Marks
Q1	Elaborate Maximum Entropy model preferred over HMM.	3
Q2	For given grammar using CKY or CYK algorithm parse the statement: "the flight includes a meal" Rules: S → NP VP S → Aux NP VP S → VP NP → Det NOM NOM → Noun NOM → Noun NOM VP → Verb VP → Verb NP Det → *that* | *this* | *a* | *the* Noun → *book* | *flight* | *meal* | *man* Verb → *book* | *includes* | *read* Aux → *does*	7
Q3	Examine the three types of referents that complicate the reference resolution problem. **OR** Examine following referring expressions with suitable examples w.r.t reference phenomena. i. Indefinite NPs and Definite NPs ii. Pronouns and Demonstratives	5
Q4	Examine the relationship between Homonymy, Polysemy, Synonymy, Hyponymy with suitable examples.	5
Q5	Describe Deterministic Parsing & Transitions involved in it	5

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Department of Computer Engineering
A.Y. 2023-24 (Even Semester)
Continuous Assessment: Term Test – II

Max. Marks: 25	**Duration: 1 Hr.**
Class: Final year	**Semester: VIII**
Course: High Performance Computing	**Course Code: DJ19CEC802**
Program: B. Tech. in Computer Engineering	**Date: 23rd April 2024**

Instructions:
(1) Assume suitable data, if necessary.

Q. No.	Question Description	CO	Blooms Taxonomy	Marks
Q.1 (a)	Compare the buffered blocking message passing operation with the non-buffered blocking message passing operation.	CO3	Evaluate	8
	OR			
Q.1 (b)	Compare MPI_Send and MPI_Recv.			
Q.2 (a)	Explain recursive decomposition technique with example.	CO3	Understand	9
	OR			
Q.2 (b)	Explain exploratory decomposition technique with example.			
Q.3	Explain OpenMP Programming Model with thread implementation.	CO5	Apply	8

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Max. Marks: 25	**Duration:** 1 Hr.
Class: Final Year (Honors)	**Semester: VIII**
Course: Intelligent Security Systems	**Course Code:** DJ19CEHN1C4
Program: Final Year B. Tech. in Computer Engineering (Honors)	**Date**: 24/04/2024

Instructions:
(1) All questions are compulsory.
(2) Check for internal options.
(3) Assume suitable data wherever required and mention the same clearly.

Q. No	Question Description	Bloom's Level	Marks
	Attempt any 2 out of the 3 Questions		
Q.1 A	Write a short note on the **"Stuxnet Virus"**. How it propagated and caused damage?	Understand	06
Q.1 B	Explain what is a companion virus? How is it different from a file infector virus?	Understand	06
Q.1 C	Explain the common methods of malware propagation	Understand	06
	Attempt any 1		
Q.2 A	Explain how Data Science Investigations help in case of a Cyber Crime.	Understand	06
	OR		
Q.2 B	Explain how Predictive Modelling helps in the case of Cyber Crime Detection.	Understand	06
	Attempt any 1		
Q.3 A	Summarize the potential consequences of relying on machine learning models that are vulnerable to adversarial attacks.	Evaluate	07
	OR		
Q.3 B	Summarize a real-world scenario where adversarial attacks could be used to manipulate financial data.	Evaluate	07

********** **All the best** **********