



MALLA REDDY ENGINEERING COLLEGE FOR WOMEN

(Autonomous Institution – UGC, Govt. of India)

(Affiliated to JNTU, Hyderabad, Approved by AICTE - - ISO 9001:2015 Certified)

Accredited by NBA & NAAC – 'A' Grade

National Ranking by NIRF - Rank band (151-300), MHRD, Govt. of India

B.TECH III YEAR II SEMESTER REGULAR END EXAMINATIONS, APRIL/MAY - 2024

CLOUD COMPUTING

(COMMON TO CSE, CSE-DS, CSE-AI&ML, IT)

[Time: 3 Hours]

[Max. Marks: 70]

PART – A

(5 x 2 = 10M)

- Note:** 1. This Part consists of 8 QUESTIONS.
2. Answer any 5 questions. Each question carries 2 Marks.

1	A	Define cloud computing in one sentence.	2M	BTL1
	B	What are the fundamental concepts of Optical Computing and its advantages	2M	BTL1
	C	What are the primary motivations behind the adoption of Cloud Computing?	2M	BTL1
	D	List any three of the five essential characteristics of Cloud Computing.	2M	BTL2
	E	What components make up the anatomy of the Cloud? Provide three examples.	2M	BTL1
	F	List three approaches for Cloud migration and provide a detail of each.	2M	BTL2
	G	Differentiate between Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).	2M	BTL3
	H	What are the cloud models offered by IBM, and what distinguishes IBM Smart Cloud from other cloud platforms?	2M	BTL1

PART – B

(5 x 12 = 60M)

- Note:** 1. This Part consists of 10 QUESTIONS
2. Answer any 1 question from each Section. Each question carries 12Marks.
3. Illustrate your answers with NEAT sketches wherever necessary.

SECTION - I

2.A	Discuss the advantages and disadvantages of Distributed Computing compared to Cluster Computing.	6M	BTL3
2.B	Explain the key differences between Grid Computing and Cloud Computing, and provide examples of scenarios where each would be more suitable.	6M	BTL2

(OR)

3.A	Describe the fundamental principles of Quantum Computing and its potential impact on various industries, such as cryptography, optimization, and drug discovery.	6M	BTL3
3.B	Discuss the current state-of-the-art research and challenges in the field of Optical Computing.	6M	BTL3

SECTION - II

4.A	Discuss the motivations driving the adoption of Cloud Computing, highlighting factors such as scalability, cost-efficiency, and flexibility.	6M	BTL3
4.B	Describe the five essential characteristics of Cloud Computing as defined	6M	BTL3

	by the National Institute of Standards and Technology (NIST), and explain the significance of each characteristic.		
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(OR)

5.A	Illustrate how Cloud Computing can be perceived as a service-based model, emphasizing the consumption of computing resources as services over the internet.	6M	BTL5
5.B	Explore the four primary Cloud deployment models (public, private, hybrid, and community), detailing their respective features, advantages, and use cases.	6M	BTL4

SECTION - III

6.A	Explain the concept of Cloud Computing architecture, including its layers and components.	6M	BTL2
6.B	Explore various approaches for Cloud migration, such as rehosting, refactoring, rearchitecting, rebuilding, and replacing, highlighting their benefits and drawbacks.	6M	BTL5

(OR)

7.A	Explore the importance of network connectivity in Cloud Computing and how it impacts the performance and reliability of cloud-based applications.	6M	BTL5
7.B	Discuss the management of Cloud applications, including deployment, monitoring, scaling, and maintenance.	6M	BTL3

SECTION – IV

8.A	Examine the pros and cons of adopting IaaS for businesses, highlighting its benefits and potential drawbacks.	6M	BTL5
8.B	Summarize notable PaaS providers, highlighting their unique features and strengths in the market.	6M	BTL3

(OR)

9.A	Explain the concept of Software as a Service (SaaS) and describe its characteristics, including accessibility and subscription-based pricing.	6M	BTL2
9.B	Examine the evolving landscape of cloud service models and predict future trends in cloud computing service offerings.	6M	BTL5

SECTION – V

10.A	Compare and contrast the cloud service offerings of EMC, specifically focusing on EMC IT and the Captiva Cloud Toolkit.	6M	BTL5
10.B	Discuss the capabilities and benefits of Google App Engine as a platform for developing and deploying applications.	6M	BTL3

(OR)

11.A	Evaluate the services provided by Salesforce, specifically Sales Cloud and Service Cloud, with a focus on Knowledge as a Service.	6M	BTL4
11.B	Explore the features and benefits of the Aneka Platform offered by Manjrasoft in the context of cloud computing.	6M	BTL5

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B.TECH III YEAR II SEMESTER REGULAR END EXAMINATIONS,
APRIL/MAY - 2024
DATA WAREHOUSING AND DATA MINING
(COMMON TO CSE, IT)

[Time: 3 Hours]

[Max. Marks: 70]

PART – A

(5 x 2 = 10M)

- Note:** 1. This Part consists of 8 QUESTIONS.
 2. Answer any 5 questions. Each question carries 2 Marks.

1	A	List out some of the characteristics of Data Warehouse.	2M	BTL3
	B	Differentiate fully additive and non additive measures in data warehouse.	2M	BTL1
	C	Define Clustering.	2M	BTL2
	D	Give the advantages and disadvantages of Discretization.	2M	BTL3
	E	Identify the algorithm used for web usage mining.	2M	BTL2
	F	Mention the parameters to be considered for evaluating the accuracy of the classifier.	2M	BTL2
	G	Name some of the types of data encountered in cluster analysis.	2M	BTL2
	H	What is meant by outlier analysis?	2M	BTL2

PART – B

(5 x 12 = 60M)

- Note:** 1. This Part consists of 10 QUESTIONS
 2. Answer any 1 question from each Section. Each question carries 12Marks.
 3. Illustrate your answers with NEAT sketches wherever necessary.

SECTION - I

2.A	Elaborate the data warehouse architecture with its components.	6M	BTL4
2.B	Describe the types of schema structure used in data warehousing.	6M	BTL3

(OR)

3.A	Give the characteristics of Fact- Less-Facts.	6M	BTL3
3.B	Describe the key components and architecture of an OLAP server.	6M	BTL3

SECTION - II

4.A	Analyze the different types of data mining systems and identify the suitable system for specific needs and objectives.	6M	BTL5
4.B	Show how the integration between a data mining system and a database can be achieved.	6M	BTL3

(OR)

5.A	Is pre-processing necessary before modeling or analysis tasks? Justify your answer.	6M	BTL3
5.B	Analyze how the integrity and usefulness of the data are maintained during the data reduction process.	6M	BTL5

SECTION - III

6.A	<div>Discuss the apriori algorithm for discovering frequent itemsets. Apply apriori algorithm to the following data set. Use 0.3 for the minimum support value.</div> <table><tr><td>Trans ID</td><td>Item purchased</td></tr><tr><td>101</td><td>strawberry, litchi, oranges</td></tr><tr><td>102</td><td>strawberry, butterfruit</td></tr><tr><td>103</td><td>butterfruit, vanilla</td></tr><tr><td>104</td><td>strawberry, litchi, oranges</td></tr><tr><td>105</td><td>banana, oranges</td></tr><tr><td>106</td><td>Banana</td></tr><tr><td>107</td><td>banana, butterfruit</td></tr><tr><td>108</td><td>strawberry, litchi, apple, oranges</td></tr><tr><td>109</td><td>apple, vanilla</td></tr><tr><td>110</td><td>strawberry, litchi</td></tr></table>	Trans ID	Item purchased	101	strawberry, litchi, oranges	102	strawberry, butterfruit	103	butterfruit, vanilla	104	strawberry, litchi, oranges	105	banana, oranges	106	Banana	107	banana, butterfruit	108	strawberry, litchi, apple, oranges	109	apple, vanilla	110	strawberry, litchi	6M	BTL4
Trans ID	Item purchased																								
101	strawberry, litchi, oranges																								
102	strawberry, butterfruit																								
103	butterfruit, vanilla																								
104	strawberry, litchi, oranges																								
105	banana, oranges																								
106	Banana																								
107	banana, butterfruit																								
108	strawberry, litchi, apple, oranges																								
109	apple, vanilla																								
110	strawberry, litchi																								
6.B	Write a note on graph Partitioning Algorithms.	6M	BTL2																						

(OR)

7.A	A database has five transactions. Let min sup=60% and min conf=80%.	6M	BTL4												
	<table><tr><td>TransactionID</td><td>Items_bought</td></tr><tr><td>T1</td><td>{M,O,N,K,E,Y}</td></tr><tr><td>T2</td><td>{D,O,N,K,E,Y}</td></tr><tr><td>T3</td><td>{M,A,K,E}</td></tr><tr><td>T4</td><td>{M,U,C,K,Y}</td></tr><tr><td>T5</td><td>{C,O,O,K,I,E}</td></tr></table>			TransactionID	Items_bought	T1	{M,O,N,K,E,Y}	T2	{D,O,N,K,E,Y}	T3	{M,A,K,E}	T4	{M,U,C,K,Y}	T5	{C,O,O,K,I,E}
	TransactionID			Items_bought											
	T1			{M,O,N,K,E,Y}											
	T2			{D,O,N,K,E,Y}											
	T3			{M,A,K,E}											
	T4			{M,U,C,K,Y}											
	T5			{C,O,O,K,I,E}											
Apply FP-tree algorithm for the above training data set assuming support of count as 3.															
7.B	Write a note on Closed Frequent Item Set with an example.	6M	BTL2												

SECTION – IV

8.A	Explain the Supervised Learning Algorithms available for classification.	6M	BTL2
8.B	Describe the methods used to express attribute test conditions.	6M	BTL3

(OR)

9.A	Explain the CART algorithm used for classification with example.	6M	BTL2
9.B	Describe how KNN algorithm works with its advantages.	6M	BTL3

SECTION – V

10.A	Write an overview of cluster categorization methods with example.	6M	BTL2
10.B	Differentiate DBSCAN and OPTICS.	6M	BTL4

(OR)

11.A	Write a note on Gaussian Mixture Models.	6M	BTL2
11.B	Compare and contrast clustering based classification and proximity based classification methods.	6M	BTL3



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B.TECH III YEAR II SEMESTER REGULAR END EXAMINATIONS, APRIL/MAY-2024

MOBILE COMPUTING

(COMMON TO CSE, CSE-CS, CSE-DS, IT)

[Time: 3 Hours]

[Max. Marks: 70]

PART – A

(5 x 2 = 10M)

- Note:**
1. This Part consists of 8 QUESTIONS
 2. Answer any 5 questions. Each question carries 2 Marks

1	A	What is multipath propagation	2M	BTL1
	B	What is frequency hopping	2M	BTL1
	C	List the GSM services	2M	BTL2
	D	Write the applications of satellite systems	2M	BTL1
	E	Define MANET	2M	BTL1
	F	What is selective retransmission	2M	BTL1
	G	Define atomic transaction	2M	BTL1
	H	What is SyncML	2M	BTL1

PART – B

(5 x 12 = 60M)

- Note:**
1. This Part consists of 10 QUESTIONS
 2. Answer any 1 question from each Section. Each question carries 12Marks.
 3. Illustrate your answers with NEAT sketches wherever necessary.

SECTION - I

2.A	Explain the solution of hidden and exposed terminal problems	6M	BTL2
2.B	Compare and Contrast SDMA,FDMA,TDMA and CDMA	6M	BTL4

(OR)

3.A	Explain the mobile computing architecture with neat sketch	6M	BTL2
3.B	Explain the Limitations of Mobile and Handheld Devices.	6M	BTL2

SECTION - II

4.	Explain the GSM architecture with neat sketch	12M	BTL2
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(OR)

5.A	Discuss about different types of handover	6M	BTL3
5.B	Compare and Contrast HSPA+, HSUPA and HSDPA+	6M	BTL4

SECTION - III

6.A	Discuss about HYPERLAN	6M	BTL3
6.B	Compare and Contrast Infrared vs radio transmission	6M	BTL4

(OR)

7.A	Explain the procedure in DHCP	6M	BTL2
7.B	Compare and Contrast traditional IP and Mobile IP	6M	BTL4

SECTION – IV

8.	Explain the following (a) Indirect TCP (b) S-TCP (c)M-TCP	12M	BTL2
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(OR)

9.A	Explain the cache invalidation mechanisms	6M	BTL2
9.B	Compare and Contrast push based and pull based mechanisms	6M	BTL4

SECTION – V

10.A	Explain the significance of file systems in mobile application development.	6M	BTL2
10.B	Compare and contrast the Wireless Application Protocol (WAP) version 1.x with WAP 2.0.	6M	BTL4

(OR)

11.	Compare and contrast major mobile platforms such as Palm OS, Windows CE, and Symbian OS	12M	BTL4
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B.TECH III YEAR II SEMESTER END EXAMINATIONS, APRIL/MAY - 2024

PROFESSIONAL ENGLISH

(COMMON TO CSE, IT)

[Time: 3 Hours]

[Max. Marks: 70]

PART – A

(5 x 2 = 10M)

- Note:** 1. This Part consists of 8 QUESTIONS.
2. Answer any 5 questions. Each question carries 2 Marks

1	A	How do you use 'among and between'? Give two examples	2M	BTL1
	B	Expand the acronyms of 'RAM' and 'CAD'	2M	BTL1
	C	Use the following idioms in your own sentences i) beat the heat ii) once in a blue moon	2M	BTL2
	D	Change the following sentences into indirect speech: (i) She said, "I may buy a dress." (ii) He said to me, "Have you read the articles?"	2M	BTL2
	E	How do you make a diphthong?	2M	BTL3
	F	What are nasal sounds in English?	2M	BTL4
	G	Mention any three main parts of a letter.	2M	BTL2
	H	Find out the difference between resume and C.V	2M	BTL1

PART – B

(5 x 12 = 60M)

- Note:** 1. This Part consists of 10 QUESTIONS
2. Answer any 1 question from each Section. Each question carries 12Marks.
3. Illustrate your answers with NEAT sketches wherever necessary.

SESSION - I

2.A	Use the right verb form from the verbs given in brackets. a) Much of the food _____ (waste). b) All the members of the committee ____ arrived now. (Have) c) ____ you sure what you said is true? (be) d) Indu _____ (show) you how to operate it. e) Harsha fell asleep while he _____ (watch) TV.			6M	BTL3
2.B	Frame SIX meaningful sentences on the given pattern.			6M	BTL5
		Subject	Verb	Preposition	Prepositional Object
		The hunter	aimed	at	the bird.

(OR)

3.A	Complete the following sentences by using appropriate articles and prepositions. i) ostrich is a native of South Africa ii) Here is heaven for lunatics. iii) This is unfortunate incident. iv) Pranavi heard the news _____ a friend. v) Rohit came _____ disguise. . vi) Sometimes we do not have control _____ what we do.			6M	BTL3
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3.B	Reframe the following sentences as directed in the brackets. i) You cannot gain admission without a trick. (Rewrite the sentence by using 'admission' as a Verb) ii) The prisoner confessed his guilt. (by using Adjective of 'confessed') iii) I believe that he will come tomorrow. (by using Noun of 'believe') iv) Kamal is buying a new laptop. (into Passive Voice) v) The article was edited by her . (into Active Voice) vi) Have you completed the thesis ?(into Passive Voice)	6M	BTL3
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SESSION - II

4.A	Explain various techniques to improve listening?	6M	BTL3
4.B	How can effective listening skills improve communication?	6M	BTL4

(OR)

5.A	What are the ways to overcome barriers to listening?	6M	BTL2
5.B	How important is accent in English?	6M	BTL3

SESSION - III

6.A	Write notes in brief on rhythm, stress and intonation with examples	6M	BTL2
6.B	Prepare and draft a speech on <i>India of my dreams</i> .	6M	BTL3

(OR)

7.A	List out Do's and Don'ts in Group Discussion.	6M	BTL2
7.B	Prepare a mock G.D with your five friends on the topic ' <i>One nation and one election ?</i> '	6M	BTL3

SESSION – IV

8.A	What are the aims and objectives of reading comprehension?	6M	BTL2
8.B	<p>Read the passage given below and answer the questions that follow:</p> <p>If a person suddenly encounters any terrible danger, the change of nature one undergoes is equally great. Sometimes fear numbs our senses. Like animals, one stands still, powerless to move a step in fright or to lift a hand in defense of our lives, and sometimes one is seized with panic, and again, acts more like the inferior animals than rational beings. On the other hand, frequently in cases of sudden extreme peril, which cannot be escaped by flight, and must be instantly faced, even the most timid men at once as if by miracle, become possessed of the necessary courage, sharp quick apprehension and swift decision. This is a miracle very common in nature. Man and the inferior animals alike, when confronted with almost certain death 'gather resolution from despair' but there can really be no trace of such debilitating a feeling in the person fighting, or prepared to fight for dear life. At such times the mind is clearer than it has ever been; the nerves are steel, there is nothing felt but a wonderful strength and daring. Looking back at certain perilous moments in my own life, I remember them with a kind of joy, not that there was any joyful excitement then, but because they broadened my horizon, lifted me for a time above myself.</p> <p>Questions:</p> <p>1. The title that best suits the passage would be:-</p> <p>A. The Will to Fight B. The Miracle of Confronting Danger</p> <p>C. The Change of Nature D. Courage and Panic</p>	6M	BTL5

	<p>2. A man may react to sudden danger in three different ways . What are they?</p> <p>A. He may flee in panic, or fight back or stand still. B. He may be paralyzed with fear, seized with panic or act like an inferior animal. C. He may be paralyzed with fear, or seized with panic, or as if by miracle, become possessed of the necessary courage, and face the danger. D. He may be paralyzed with fear, run away or fight.</p> <p>3. What is the meaning of the word debilitating ? A. enfeeble B. strengthen C. debase D. thriving</p> <p>4. Explain the phrase 'gather resolution from danger'. A. Find peace in times of difficulty. B. A state of utter hopelessness makes one determined to face the difficulty. C. To remain calm and not to lose hope. D. To be enthusiastic and brave the odds.</p> <p>5. The author feels happy in the recollection of dangers faced and overcome because A. They brought him a new experience. B. They added a new perspective and lifted him above himself for a time. C. These experiences boosted his confidence. D. He felt elated as he was alive.</p> <p>6. What is the part of speech of 'horizon' A. Noun B. adjective C. verb D. adverb</p>		
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(OR)

9.A	List out the benefits of Intensive and extensive reading.	6M	BTL3
9.B	<p>Fill the gaps in the short passage with suitable words given below.</p> <p>a) challenge b) encourage c) include d) rhythm e) contribute f) mental g) routine</p> <p>Creating a daily _____ based on brain-boosting habits helps build _____ strength. You could _____ activities such as a gratitude journal, practicing mindfulness, and grounding exercises. Any practices which _____ you to pause, reflect, and _____ negative thoughts will _____ to mental strength.</p>	6M	BTL3

SESSION – V

10.A	Write a technical report on Mobile app development.	6M	BTL2
10.B	Compose a paragraph of about 150 words on ,“what keeps me healthy”.	6M	BTL3

(OR)

11.A	Write an argumentative essay on <i>Are men and women equally emotional?</i>	6M	BTL2
11.B	<p>Find errors in the following sentences and make necessary corrections.</p> <p>i) Look at the flock of bees around the hive! ii) Have you ever being to Kashmir? iii) I prefer chocolate milkshake than vanilla ice cream. iv) She always hits me without any reason. v) None but me turned up. vi) Unless you do not try, you will never succeed.</p>	6M	BTL3



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B.TECH III YEAR II SEMESTER REGULAR END EXAMINATIONS, APRIL/MAY - 2024

WEB TECHNOLOGIES

(COMMON TO CSE, CSE-AIML, CSE-CS, CSE-DS, CSE-IOT, IT)

[Time: 3 Hours]

[Max. Marks: 70]

PART – A

(5 x 2 = 10M)

- Note:** 1. This Part consists of 8 QUESTIONS.
2. Answer any 5 questions. Each question carries 2 Marks.

1	A	What are the different types of lists in HTML?	2M	BTL1
	B	What is the use of CSS and explain the types of CSS?	2M	BTL1
	C	What is the default port for HTTP and HTTPS?	2M	BTL1
	D	What is regular Expression in java script?	2M	BTL1
	E	Explain the lifecycle servlet Write a java script program to perform the validation process in an application program.?	2M	BTL2
	F	List the different types of statements in JDBC.	2M	BTL2
	G	Write a syntax to Reversing Array Element Order with example?	2M	BTL1
	H	What is XML DOM Document?	2M	BTL1

PART – B

(5 x 12 = 60M)

- Note:** 1. This Part consists of 10 QUESTIONS
2. Answer any 1 question from each Section. Each question carries 12Marks.
3. Illustrate your answers with NEAT sketches wherever necessary.

SECTION – I

2.A	Discuss about tags related to table and different types of lists with sample code.	6M	BTL4
2.B	Explain the architecture and features of apache server.	6M	BTL2

(OR)

3.A	Explain the three types of CSS styles?	6M	BTL2
3.B	Differentiate “class” and “id” in CSS? Show the use of external CSS with example.	6M	BTL4

SECTION - II

4.A	Write a java script program to perform the validation process in an application program.	6M	BTL2
4.B	Write a script that asks the user to enter two numbers and outputs text that displays the sum, product, difference and quotient of two numbers.	6M	BTL3

(OR)

5.A	Explain the importance of Document Object Model (DOM)	6M	BTL2
5.B	Create an XML file for an employee (EMPID, EMPNAME, DOJ, SALARY). Create a DTD and a Schema for this xml file.	6M	BTL4

SECTION - III

6.A	Discuss the advantages of a servlet over CGI. Explain how to read and initialize the parameters.	6M	BTL2
6.B	Describe cookies and sessions in servlets. Illustrate this with example programs.	6M	BTL4

(OR)

7.A	What is JDBC? Explain the JDBC architecture.	6M	BTL2
7.B	Explain various types of JDBC drivers?	6M	BTL2

SECTION – IV

8.A	Summarize the list of Directives? Explain about JSP directives.	6M	BTL3
8.B	Write about the implicit objects in JSP?	6M	BTL4

(OR)

9.A	Define Java Server Pages? What are the elements of a JSP page? Summarize about each element with examples.	6M	BTL2
9.B	Explain about session tracking in different ways of maintaining sessions in JSP	6M	BTL2

SECTION – V

10.A	Define Cookie and Session. Compare Cookie and Session with example programs in PHP.	6M	BTL2
10.B	Write a PHP program to validate the form input.	6M	BTL5

(OR)

11.A	Illustrate the working of multiple forms in PHP?	6M	BTL3
11.B	Write a Program in PHP with MySQL to enter student information	6M	BTL5

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