

Code No: 80H05

MR18(2019-20)

HT.NO:



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhulapally, (Post Via Kompally), Secunderabad-500100.

B.TECH III YEAR I SEMESTER REGULAR EXAMINATIONS, JANUARY-2022

SUBJECT: Management Fundamentals

BRANCH: CSE

Time: 3 hours

Max. Marks: 70

Answer all questions

5X14M=70 M

All Questions carries equal marks

Q.NO	QUESTIONS	MARKS	*BT LEVEL	CO																					
1.	Explain Fayol's 14 principles of management.	14	L2	1																					
	OR																								
2.	a) Briefly explain theory X and theory Y b) Write a short note on Herzberg's two factor theory of motivation.	7 7	L5	1																					
3.	a) Describe the steps involved in process of planning. b) What is functional organization? Explain merits and demerits.	7 7	L3	2																					
	OR																								
4.	a) Illustrate the line and staff organizations with suitable example. b) Explain modern organizational structure.	7 7	L4	2																					
5.	a) What is recruitment & selection? Explain its role in man power planning. b) Explain different types of training methods.	7 7	L5	3																					
	OR																								
6.	a) What are quality control charts? Explain its importance in quality control. b) Identify the steps involved in process of controlling.	7 7	L3	3																					
7.	a) What is ABC analysis? Explain with suitable example. b) What is EOQ? Illustrate with example.	7 7	L2	4																					
	OR																								
8.	a) What is work study and method study? Briefly explain the procedure for work measurement. b) Explain the three main methods of production.	7 7	L4	4																					
9.	a) List out the differences between CPM & PERT b) From the following data, draw the network. Find the critical path & total duration of the project	7	L5	5																					
	<table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Activity</th> <th>Duration (Days)</th> </tr> </thead> <tbody> <tr><td>1-2</td><td>4</td></tr> <tr><td>1-3</td><td>4</td></tr> <tr><td>1-4</td><td>4</td></tr> <tr><td>2-5</td><td>8</td></tr> <tr><td>3-6</td><td>16</td></tr> <tr><td>4-6</td><td>8</td></tr> <tr><td>5-7</td><td>4</td></tr> <tr><td>6-7</td><td>10</td></tr> <tr><td>7-8</td><td>8</td></tr> </tbody> </table>	Activity			Duration (Days)	1-2	4	1-3	4	1-4	4	2-5	8	3-6	16	4-6	8	5-7	4	6-7	10	7-8	8		
Activity	Duration (Days)																								
1-2	4																								
1-3	4																								
1-4	4																								
2-5	8																								
3-6	16																								
4-6	8																								
5-7	4																								
6-7	10																								
7-8	8																								
	OR																								

10.	Activity	Days		Cost									
		Normal	Crash	Normal	Crash								
	1-2	3	2	300	400								
	2-3	3	3	30	30								
	2-4	7	5	420	580								
	2-5	9	7	720	810								
	3-5	5	4	250	300								
	5-6	6	4	320	410								
	6-7	4	3	400	470								
	6-8	13	10	780	900								
7-8	10	9	1000	1200									
Indirect cost Rs.50 per day.													
Crash the activities and determine optimal project duration & cost.						7							
b) Explain the steps involved in capability maturity model.						7							
							L6	5					

*Bloom's Taxonomy Level (BT Level): L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5- Evaluate, L6- Create.

Code No: 80516

MR18(2019-20)

HT.NO:



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhulapally, (Post Via Kompally), Secunderabad-500100.

B.TECH III YEAR I SEMESTER REGULAR EXAMINATIONS, JANUARY-2022

SUBJECT: Compiler Design

BRANCH: CSE

Time: 3 hours

Max. Marks: 70

Answer all questions

5X14M=70 M

All Questions carries equal marks

Q.NO	QUESTIONS	MARKS	*BT LEVEL	CO
1.	Explain the different phases of a compiler, showing the output of each phase, using the example of the following statement: position := initial + rate * 60 .	14	L3	1
OR				
2.	a) Explain the Finite Automata model role in compilation. b) Write and explain general format of a LEX program.	7 7	L2	1
3.	a) Discuss recursive descent parsing with an example? b) Construct Predictive Parser Table for the given CFG S->iEtSA a A->eS ε E->b	4 10	L3	2
OR				
4.	Construct SLR parsing table for the following grammar S->AS /b A-> SA /a	14	L2	3
5.	a) Explain Type checker. b) Discuss Symbol table management in detail.	7 7	L2	3
OR				
6.	a) Discuss in detail about (i) Abstract Syntax Tree (ii) Polish Notation (iii) Three Address Code b) Explain SDD for an Arithmetic Expression.	7 7	L4	3
7.	a) Explain Stack based storage allocation. b) Discuss Local optimization in detail.	7 7	L2	4
OR				
8.	a) Explain heap based storage allocation. State its advantages and disadvantages. b) Discuss Loop optimization in detail.	7 7	L3	4
9.	a) Explain various Global Optimization techniques in detail. b) Explain register allocation and assignment.	7 7	L2	5
OR				
10.	a) Explain the DAG representation of the basic block with example. b) Explain Machine dependent code optimization.	7 7	L2	5

*Bloom's Taxonomy Level (BT Level): L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5- Evaluate, L6- Create.

Code No: 80517

MR18(2019-20)

HT.NO:



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhulapally, (Post Via Kompally), Secunderabad-500100.

B.TECH III YEAR I SEMESTER REGULAR EXAMINATIONS, JANUARY-2022

SUBJECT: Computer Networks

BRANCH: CSE

Time: 3 hours

Max. Marks: 70

Answer all questions

5X14M=70 M

All Questions carries equal marks

Q.NO.	QUESTIONS	MARKS	*BT LEVEL	CO
1.	a) Match the following to one or more layers of the OSI model: i) Communicates using raw bits to receiver. ii) Error correction and retransmission iii) Session establishment and termination. iv) Responsibility for carrying frames between adjacent nodes. b) Name the four basic network topologies and cite an advantage of each type.	7 7	L4 L3	1
OR				
2.	Discuss about switching and various types of switching networks.	14	2	1
3	a) Discuss how 1-bit error can be corrected using Hamming Code with an example. b) Explain working of HDLC protocol.	7 7	L2	2
OR				
4.	A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is x^3+1 . 1. What is the actual bit string transmitted? 2. Suppose the third bit from the left is inverted during transmission. How will receiver detect this error?	14	L3	2
5.	Illustrate source based tree multicasting routing protocols.	14	L3	3
OR				
6.	a) Explain the working of IGMP with an example. b) Discuss how internetworking occurs at Network Layer.	7 7	L3 L2	3
7.	a) How connection is established and terminated in TCP? b) Discuss TCP segment format	7 7	L2	4
OR				
8.	Discuss QoS in switched networks.	14	L2	4
9.	a) Explain in detail about message format and message transfer in E-mail. b) Discuss about WWW in detail.	7 7	L2 L2	5
OR				
10.	Explain in detail about domain Name Services.	14	L2	5

*Bloom's Taxonomy Level (BT Level): L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5- Evaluate, L6- Create.

Code No: 80617

MR18(2019-20)

HT.NO:



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhulapally, (Post Via Kompally), Secunderabad-500100.

B.TECH III YEAR I SEMESTER REGULAR EXAMINATIONS, JANUARY-2022

SUBJECT: Artificial Intelligence

BRANCH: Common to CSE & IT

Time: 3 hours

Max. Marks: 70

Answer all questions

5X14M=70 M

All Questions carries equal marks

Q.NO.	QUESTIONS	MARKS	*BT LEVEL	CO
1.	a) What are the foundations of artificial intelligence? Explain the components of AI program.	8	L2	1
	b) Analyze the subareas of artificial intelligence.	6	L4	
OR				
2.	a) Summarize the capabilities of intelligent systems.	6	L2	1
	b) Assess various approaches for playing the tic-tac-tee game.	8	L4	
3.	a) Demonstrate the role of alpha-beta pruning in reducing the number of tree branches.	7	L3	2
	b) Choose and examine any one constraint satisfaction problem	7	L4	
OR				
4.	a) Illustrate the depth-first search algorithm with an example.	8	L3	2
	b) How to measure the effectiveness of any search strategy in problem solving? Discuss.	6	L2	
5.	a) Discuss about predicate logic with all the logics and examples.	7	L3	3
	b) List out and explain the semantic tableau rules in propositional logic.	7	L2	
OR				
6.	a) State and describe the inference rules of natural deduction system.	7	L2	3
	b) Analyze various knowledge representation techniques.	7	L4	
7.	a) Interpret the truth maintenance systems with suitable examples.	8	L3	4
	b) Compare the expert systems with the traditional systems.	6	L2	
OR				
8.	a) List out and describe the applications of expert systems.	6	L2	4
	b) With a neat diagram, explain the architecture of an expert system	8	L2	
9.	a) Assess the inference rules of the fuzzy propositions.	7	L4	5
	b) Outline the procedure involved in Bayesian belief networks.	7	L2	
OR				
10.	a) Demonstrate the mechanism related to the certainty factor theory.	7	L3	5
	b) Define a fuzzy set. Categorize the membership functions and discuss the fuzzy set operations.	7	L2	

*Bloom's Taxonomy Level (BT Level): L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5- Evaluate, L6- Create.

Code No: 80528

MR18(2019-20)

HT.NO:



MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

Maisammaguda, Dhulapally, (Post Via Kompally), Secunderabad-500100.

B.TECH III YEAR I SEMESTER REGULAR EXAMINATIONS, JANUARY-2022

SUBJECT: Distributed Systems

BRANCH: CSE

Time: 3 hours

Max. Marks: 70

Answer all questions

5X14M=70 M

All Questions carries equal marks

Q.NO.	QUESTIONS	MARKS	*BT LEVEL	CO
1.	a) Explain the architectural and fundamental models of distributed systems?	7	L3	1
	b) Discuss about client server resource sharing process.	7	L3	
OR				
2.	a) Explain challenges of Distributed systems.	7	L2	1
	b) Discuss how distributed systems are more scalable than the centralized systems.	7	L3	
3.	a) Distinguish between remote invocation and Remote procedure call.	7	L4	2
	b) Discuss the issues relating to datagram communication.	7	L3	
OR				
4.	a) Describe distributed OS architectural layers and processes in detail?	7	L3	2
	b) Write a sample program to explain RMI using Java?	7	L4	
5.	a) Explain any two cryptographic algorithms deployed in distributed systems.	7	L3	3
	b) What is the process? Explain difference between process and threads.	7	L3	
OR				
6.	a) Describe digital signatures and its relevance in business operations	7	L3	3
	b) Distinguish between Sun Network file system and Andrew?	7	L4	
7.	a) Describe global naming service and explain how it is useful of organizations to perform distributed operations?	7	L4	4
	b) List out distributed mutual exclusion algorithms and explain any 2 algorithms in detail.	7	L3	
OR				
8.	a) Explain X.500 directory service with suitable figure?	7	L3	4
	b) Describe relevance and structure of DNS?	7	L3	
9.	a) Discuss distributed deadlocks in detail with an example?	7	L3	5
	b) Write short notes on: i. Distributed Multimedia Systems ii. Timestamp Ordering	7	L3	
OR				
10.	a) What is transaction? Briefly explain about flat and nested distributed transactions?	7	L3	5
	b) Write short notes on: i. Transaction Recovery Process ii. Atomic Commit protocol	7	L3	

*Bloom's Taxonomy Level (BT Level): L1-Remember, L2- Understand, L3- Apply, L4- Analyse, L5- Evaluate, L6- Create.

