MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 Compiler Design

(CSE)											
Roll No											

Time:	3 hou	urs Max. Mar	rks: 70								
Note:	This	question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE									
Questi	on fro	om each SECTION and each Question carries 14 marks.									

		SECTION-I									
1	\boldsymbol{A}	What are the Compilers and Interpreters? Differentiate the compiler and									
	_	interpreter.									
	B	Explain different types of compilers and how bootstrapping is involved.	[7M]								
2		OR									
2	A	Describe the Token. In lexical analysis, how do you recognize and generate the tokens?	[7M]								
	\boldsymbol{B}	What is context-free grammar? Construct the left-most and right-most	[7M]								
		derivation for the following grammar. And its syntax tree for it and check its									
		ambiguity for id+id*id.									
		E->E+E E-E E*E E/E id.									
2	4	SECTION-II	[73]								
3	\boldsymbol{A}	Identify whether the given grammar is LL (1) or not and construct the	[7M]								
		predictive parsing table for it. S->(L)/a									
		L->L, S/S									
	\boldsymbol{B}	Differentiate between top-down parser and bottom-up parser.	[7M]								
		OR									
4	\boldsymbol{A}	Construct the LALR Parsing table for the following grammar.	[7M]								
		E->E+T T									
		T->T*F F									
	_	F->id									
	В	Examine error recovery with LR parsers and how it differs from LL parsers. SECTION-III	[7M]								
5	\boldsymbol{A}	How SDT schemes are represented for type checking in a compiler	[7M]								
	_	construction.									
	В	What are the different strategies used to represent the intermediate code? OR	[7M]								
6	\boldsymbol{A}	How is a symbol table created and state its functionalities towards compilation?	[7M]								
	В	Evaluate the effectiveness of various symbol table organizations. SECTION-IV	[7M]								
7	\boldsymbol{A}	Illustrate with an example related to different run time storage organization	[7M]								
	В	Describe how records, strings, and arrays are allocated to storage. OR	[7M]								
8	\boldsymbol{A}	What is code optimization? Briefly describe the scope of the optimization.	[7M]								

	В	How machine-independent code optimization is carried out with different strategies?	[7M]
		SECTION-V	
9	\boldsymbol{A}	Discuss global optimization techniques.	[7M]
	B	What is liveness? Explain live variable analysis with an example.	[7M]
		OR	
10	\boldsymbol{A}	Illustrate the various issues associated with target language generation	[7M]
	B	Give an example of how register allocation is done using DAG.	[7M]

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 Artificial Intelligence

(CSE & IT)											
Roll No											

Time: 3 hours

Note: This question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE

Question from each SECTION and each Question carries 14 marks.

Questi	on fro	om each SECTION and each Question carries 14 marks. ***	
		SECTION-I	
1	\boldsymbol{A}	Explain Hill climbing with an example.	[7M]
	\boldsymbol{B}	Discuss DFS with a suitable example.	[7M]
		OR	
2	\boldsymbol{A}	Define a problem and its components. Explain how a problem-solving agent works.	[6M]
	\boldsymbol{B}	Discuss Constraint satisfaction in detail.	[8M]
		SECTION-II	
3	\boldsymbol{A}	Discuss the Alpha-Beta pruning algorithm with an example.	[8M]
	\boldsymbol{B}	Write AO* search algorithm.	[6M]
		OR	
4	\boldsymbol{A}	Explain Backward chaining with an example.	[8M]
	\boldsymbol{B}	Compare Propositional Logic and First-Order Logic.	[6M]
		SECTION-III	
5	\boldsymbol{A}	Discuss about Knowledge Representation Issues in detail.	[7M]
	\boldsymbol{B}	Compare Monotonic and Non-Monotonic reasoning.	[7M]
		OR	
6	\boldsymbol{A}	Discuss Baye's Rule with a suitable example.	[7M]
	\boldsymbol{B}	Explain briefly how to represent knowledge in an uncertain domain.	[7M]
		SECTION-IV	
7	\boldsymbol{A}	Explain learning by taking advice.	[9M]
	\boldsymbol{B}	Describe Rote learning with an example.	[5M]
		OR	
8	\boldsymbol{A}	Discuss Winston's Learning program.	[7M]
	\boldsymbol{B}	What is a decision tree? Write the decision tree learning algorithm.	[7M]
		SECTION-V	
9	\boldsymbol{A}	What is an expert system? Write the characteristics and capabilities of an	[5M]
		expert system.	FOR #7
	\boldsymbol{B}	Discuss the components of the expert system with a neat diagram.	[9M]
10	4	OR	F#3 #3
10	A	Explain the representation and use of Domain knowledge.	[7M]
	\boldsymbol{B}	Explain Expert system shells with a neat diagram. ***	[7M]
		ጥጥጥ	

9

10

 \boldsymbol{A}

 \boldsymbol{B}

 \boldsymbol{A}

В

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 **Software Engineering** (CSE)

			Roll No												
Times	: 3 hoi	ırs												Max I	Marks: 70
Note: This question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE															
Question from each SECTION and each Question carries 14 marks.															

<u>SECTION-I</u>															
1	\boldsymbol{A}	Wha	t is the layered	d techno	ology	of so	ftwa	re er	igine	ering	g?E	xplai	n in	detail.	[7M]
	\boldsymbol{B}		ain why incre					the 1	most	effe	ctive	app	roac	h for	[7M]
		developing business Software Systems.													
		OR													
2	\boldsymbol{A}	-	ain the Evolut	•					_	_					[7M]
	\boldsymbol{B}	Wha	t are the 5 stag	ges of t	he wa					y?					[7M]
2		D: cc		C	, •		TIO								F4 43 #7
3		Diffe	erentiate between	een fur	nction	al an		ı- fui	nct10	nal i	equi	reme	ents		[14M]
4	\boldsymbol{A}	Dron	v the complete	DED A	ot 1000	t 1110 :	OR	laval	a for	1:1	34041	mor		nant	[7]
4	A	syste		י עיוע כ	at icas	ı up	10 2-	ie vei	S 101	a m	лагу	mai	iagei	Hem	[7M]
	В	-	t are the activ	ities of	requi	emei	nts el	icita	tion	and .	anals	zeie?			[7M]
	D	vv 11a	t are the activ	ities of		SEC.				ana	amary	y 515 :			[/1/1]
5	\boldsymbol{A}	Def	ine Architectu	re Style						erent	kind	ls of	Arch	itecture	e [7M]
			es and Patterns	•	20. 21 0	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	14111	WIII	71 0110	111110	01		incorun	[,1,2]
	В	•	the guidelines		a desi	gn.									[7M]
			\mathcal{E}			C	OR								. ,
6	\boldsymbol{A}	Expl	ain modularit	y, Refir	nemen	t and	Re -	- fact	oring	g in	Softv	vare	Desi	gn	[7M]
		Proc	ess.												
	\boldsymbol{B}	Wha	t are the steps	in inte	rface a	analy	sis?								[7M]
						SEC		N-IV	7_						
7	\boldsymbol{A}		t are the Met												[7M]
	\boldsymbol{B}	Disti	nguish between	en Whit	te Box	x Tes	_	and I	Black	c Bo	x Te	sting			[7M]
_							OR								
8	A		fly describe S												[7M]
	\boldsymbol{B}	Expl	ain metrics fo	r Testir	ng and										[7M]
						<u>SEC</u>	CTIO	N-V							

OR

Discuss about Statistical Software quality Assurance.

Illustrate the features of CMMI.

What is RMMM? Explain.

Write a short note on Risk projection.

[**7M**]

[**7M**]

[**7M**]

[**7M**]

Roll No

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 Python Programming

(CSE & IT)

Note:		question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE	
Quest	ion fro	om each SECTION and each Question carries 14 marks. ***	
		SECTION-I	
1	\boldsymbol{A}	Show indexing and slicing with different data type structures?	[7M]
1	В	Illustrate expression with an example?	[7M]
		OR	
2	\boldsymbol{A}	Write a short note on history and features of python?	[7M]
	В	Does mutability support for list, if yes explain any two methods with example?	[7M]
		SECTION-II	
3	\boldsymbol{A}	List and define different types of python iteration statements with syntax?	[7M]
	B	Briefly describe about break and continue statements?	[7M]
4		OR	F#3 #3
4	\boldsymbol{A}	Write any program using function and explain how the flow of execution happened?	[7M]
	B	Discuss passing arguments keyword arguments and with example.	[7M]
~	4	SECTION-III	F#3 #3
5	\boldsymbol{A}	Differentiate the function, fruitful function and anonymous functions with example each?	[7M]
	B	Define lambda, filter, map and reduce functions?	[7M]
		OR	
6	A	Write the difference between parameter and arguments in functions and explain with an example?	[7M]
	В	Write a program to create a menu with the following options 1. Area of a circle 2. Area of a triangle 3. Area of a rectangle SECTION-IV	[7M]
7	\boldsymbol{A}	Demonstrate pandas and numpy module with examples?	[7M]
·	В	What is the importance of 'pip'? Explain.	[7M]
		OR	[· - · -]
8	\boldsymbol{A}	What are the advantages of modularizing code in large applications?	[7M]
	В	Write a python program to write the content "welcome to python world" for the existing file?	[7M]
		SECTION-V	
9	\boldsymbol{A}	Write a python program to create an empty class?	[7M]
	В	Differentiate between compile-time and run-time polymorphism? OR	[7M]
10	\boldsymbol{A}	Write a program to find sum of two numbers using class and methods?	[7M]
	В	Develop your choice of application using Django framework? ****	[7M]

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 Embedded Systems

(CSE & IT)

(652 64 11)												
Roll No												

Time: 3 hours Max. Marks: 70

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

		SECTION-I	
1	\boldsymbol{A}	Explain the different addressing modes of 8086 microprocessor.	[7M]
	\boldsymbol{B}	Discuss about the memory segmentation in 8086.	[7M]
		OR	
2	\boldsymbol{A}	Discuss the Logical and Program Branching instructions of 8051 with	[7M]
		examples.	
	\boldsymbol{B}	Explain in detail of about memory organization in 8051.	[7M]
		SECTION-II	
3	\boldsymbol{A}	Explain the classification of embedded systems based on the complexity and	[7M]
	ъ	generation.	F#3 #1
	B	Describe the characteristics of Embedded Systems.	[7M]
4	4	OR Discuss in detail about operation attributes of ambedded systems	[7] [7]
4	A	Discuss in detail about operation attributes of embedded systems.	[7M]
	\boldsymbol{B}	Explain any two applications of embedded systems in detail.	[7M]
5	4	SECTION-III List all the actorograms of ambedded agree and any two in detail	[7] [7]
3	$oldsymbol{A}{oldsymbol{B}}$	List all the categories of embedded core and any two in detail. Discuss about LED, seven segment display	[7M] [7M]
	D	OR	[/1/1]
6	\boldsymbol{A}	Explain the I2C bus interfacing with neat schematic.	[7M]
v	B	Describe the different pin connections of RS-232 communication interface.	[7M]
		SECTION-IV	[,1,2]
7	\boldsymbol{A}	Explain the limitations/drawbacks of assembly language based embedded	[7M]
		firmware development	
	\boldsymbol{B}	Discuss about super loop based approach of embedded firmware design.	[7M]
		OR	
8	\boldsymbol{A}	Explain the declaration and initialization of structure variables.	[7M]
	\boldsymbol{B}	What is interrupt? Explain its properties. What is its role in embedded	[7M]
		application development?	
		SECTION-V	
9	A	Explain the loops and conditional statements in Embedded C.	[7M]
	\boldsymbol{B}	Discuss the various functions in Embedded C.	[7M]
10	4	OR Explain the logical and relational energtors in Embedded C	[7]
10	A B	Explain the logical and relational operators in Embedded C. Discuss about usage of pointers in Embedded C with syntaxes.	[7M] [7M]
	D	Discuss about usage of pointers in Embedded C with syntaxes.	[\TAT]

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech I Semester Supplementary Examinations, June/July 2024 Enterprise Resource Planning

(CSE)											
Roll No											

Time: 3 hours

Max. Marks: 70

Note: This question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE

Question from each SECTION and each Question carries 14 marks.

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	<u>SECTION-I</u>										
1	\boldsymbol{A}	What is ERP? give an overview.	[7M]								
	\boldsymbol{B}	What is Enterprise Resource Planning? List out the benefits (tangible and	[7M]								
		intangible) of ERP to an organization.									
		OR									
2	\boldsymbol{A}	What is meant by business process reengineering?	[7M]								
	\boldsymbol{B}	Discuss the reasons of growth of ERP Market.	[7M]								
		SECTION-II									
3	\boldsymbol{A}	Discuss the important parameters to be considered for preparing of ERP	[7M]								
	_	Systems for business organization.									
	\boldsymbol{B}	Explain the major ERP supported functions in organizations and its benefits.	[7M]								
4		OR	[#N #3								
4	A	State some major subsystems of manufacturing module.	[7M]								
	В	Explain in detail the concept of Product Life Cycle Management. SECTION-III	[7M]								
5	\boldsymbol{A}	Explain The Subsystems of Plant Maintenance Module in ERP.	[7M]								
3	\boldsymbol{B}	Explain the Subsystems of Flant Maintenance Module in EKF. Explain the major ERP supported functions in organizations and its benefits.	[7M]								
	D	OR	[/141]								
6	\boldsymbol{A}	Describe about the ERP functional module in financial management	[7M]								
	\boldsymbol{B}	What are the main modules of Materials Management module?	[7M]								
		SECTION-IV									
7	\boldsymbol{A}	What are the implementation methodologies of ERP software?	[7M]								
	\boldsymbol{B}	What sort of analysis is carried out at post-implementation stage of ERP?	[7M]								
		OR									
8	\boldsymbol{A}	State the process of ERP maintenance and how to reduce the ERP	[7M]								
		maintenance cost?									
	\boldsymbol{B}	How does a company ensure that its ERP investment pays off in increased	[7M]								
		profitability?									
•		SECTION-V	F#3 #3								
9	A	How are the ERP systems enabled with internet?	[7M]								
	В	How is ERP used in CRM? OR	[7M]								
10	\boldsymbol{A}	How is the internet used in Cloud computing process?	[7]								
10	\boldsymbol{B}	How is the Business Analytics process used in ERP?	[7M] [7M]								
	D	***	[/1/1]								