	Hall	Ticket Number :													
Code: 5G452									R-15						
	III B.Tech. I Semester Supplementary Examinations November 2019														
	Automata and Compiler Design														
	(Information Technology) Max. Marks: 70 Time: 3 Hours														
	Answer all five units by choosing one question from each unit (5 x 14 = 70 Marks) ********														
		UNIT–I a) Write in brief about Chomsky hierarchy of languages and recognizers.													
1.	a)	Write in brief abo	ut Ch	noms	sky hi	erard	chy c	of lang	guag	es ai	nd re	ecogr	nizers.		
	b)	Construct a DFA for the recognizing the language of all strings over the alphabet {0, 1} and contain the substring 10. Show the acceptance of the string 001011.													
		OR													
2.	a)											ing languages			
		i) All strings of odd length													
		ii) All strings that end with either ab or bb													
		iii) All strings that contain even number of a's													
	b)	Construct NFA for recognizing the language generated by the regular expression. (a+b)*abb . Check the acceptance of the string abababb.													
							JNIT					_			
3.		What do you me ambiguous gramm		•	•	-				•				•	
								R		•					
4.		Explain the differe suitable example.	ent p	hase	s of t	the c	omp	iler, s	showi	ng tł	ne oi	utput	of eac	h phase using	
							JNIT-								
5.	a)	Design CLR pars				-	-								
	L.)	E E+T,						(E	:),⊢	id					
	b)	Briefly explain the) LR	pars	ing a	Igorit		R							
6.	a)	Write about the ty	/pe c	heck	ina a	of ove			uncti	ons a	and o	opera	ators		
	b)	Differentiate dyna	•		•										
						U	INIT-	-IV							
7.	,	Explain the syntax													
	b)	Different forms of Intermediate code? with example OR													
8.	a)) Construct Quadruples, Triples and Indirect Triples of the following expression											g expression:		
	 I = - J * (K + W). b) Write about the advantages of intermediate code. Discuss about three with secondary. 										t three	address code			
	with examples.														
9.	UNIT-V a) Construct quadruples and DAG for the following expression:														
	A = B * -C + B * -C														
	b)	 b) Discuss in brief about register allocation and assignment OR 													
10.	a)	Explain in detail a	about	pee	phole	e opt	imiza	ation							

b) What is the use of data flow analysis? Write short notes on data flow analysis of flow graph of basic blocks

Hall	Tick	et Number :												
Code	•• 5G	R-15												
III B.Tech. I Semester Supplementary Examinations November 2019														
		Computer Networks												
		(Common to CSE & IT)												
-		Time: 3 Hou ver all five units by choosing one question from each unit (5 x 14 = 70 Marks)	Jrs											
	-	*****												
1.	2)	UNIT-I	7M											
1.	a) b)	Discuss wireless transmission with its advantages and disadvantages.	71VI 7M											
	b)	Compare FDM and TDM. OR	7 111											
2.	a)													
	,													
	b)) Describe the Transmission Media. What are the types of Transmission Media?												
		UNIT–II												
3.	a)	Explain the following error detection techniques												
		i) Checksum ii) Hamming Code	7M											
	b)													
		1 msec and 49.5 msec respectively, then-												
		i. What should be the sender window size to get the maximum efficiency?ii. What is the minimum number of bits required in the sequence number field?												
		iii. If only 6 bits are reserved for sequence numbers, then what will be the												
		efficiency?												
		OR												
4.	a)	Discuss Framing Techniques in brief.	7M 7M											
	b)	List and explain different multiple access protocols in brief.												
5.	a)	a) Explain the function of Link state routing protocol with an example.												
	b)													
	,	shortest path routing in brief.												
		OR												
6.	a)	Elaborate on multicast routing protocol.	6M											
	b)	What is Congestion Control? What are the causes of congestion control?	014											
		Explain token bucket algorithm in brief. UNIT-IV	8M											
7.	a)	Explain how TCP manages a byte stream.	7M											
	b)	Define UDP and discuss the different fields format of a used datagram. List												
	,	out the uses of UDP protocol.												
		OR												
8.	a)	What are the elements of Transport layer? Discuss each in brief.	7M											
	b)	Explain congestion avoidance mechanism using random early detection in												
		transport layer with an example.	7M											
9.	a)	UNIT-V In DNS, can a single host have (i) multiple host names and (ii) Multiple												
•••	,	addresses? How the records are organized in such cases?	7M											
	b)	What is email privacy? Discuss the email security package PGP with its operation.	7M											
		OR												
10.	a)	Explain the major DNS resource record types and their meaning.	7M											
	b)	Explain authoritative and non-authoritative DNS.	7M											

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C	.oa	e: 5G454 III B.Tech. I Semester Supplementary Examinations November 2019												
		Data Warehousing and Data Mining												
		(Information Technology)												
	Max	x. Marks: 70 Time: 3 Hour	S											
		Answer all five units by choosing one question from each unit (5 x 14 = 70 Marks)												
		UNIT-I												
1.		Why do we need data preprocessing? Elaborate in detail about various steps and												
••		techniques used in data preprocessing.												
		OR												
2.	a)	Explain the different methods for data cleaning.	-											
	b)	Explain how Principal Component Analysis (PCA) will reduce the data dimensionality.	•											
		UNIT–II												
3.	a)	What are the steps in Association Rule mining? Explain with examples.	-											
	b)	Explain the various techniques to improve the efficiency of Apriori based mining.												
		OR												
4.		Can we design a method that mines the complete set of frequent itemsets without												
		candidate generation? If yes? Explain with an example.	1											
_	-)	UNIT-III												
5.	a)	 What is Classifier Accuracy? Justify that accuracy is function of sensitivity and specificity. 												
	b)													
	0)	regression model.												
		OR												
5.	a)	Construct and describe about Bayesian belief network for disease prediction.												
	b)	Demonstrate the fuzzy operations used in classification with example.												
		UNIT-IV												
7.	a)	List and describe major Categorization of clustering methods used in KDD.	-											
	b)	Describe DBSCAN method for clustering the data.	-											
		OR												
3.	a)	Elaborate COBWEB algorithm in model based clustering.												
	b)													
		for outlier detection.												
_	-		_											
Э.	a)	Explain about Web usage mining.	_											
	b)	Explain about Latent semantic indexing. OR												

Ficke	et Number :]												
									R-15	5					
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Mar	'ks: 70			(Co	omm	ion t	o C	SE &	11)				Time: 3 H	lours	
		sbya	choc	osing				n from	n ead	ch ur	nit (5	5 x 14			
						*****		т_і							
a)	Explain the	conce	ept o	f sec	ımen	ted n			Vhat	aret	the a	dvar	ntages?	7M	
b)	Write an 8086 ALP to find sum of numbers in the array of 10 elements?														
	OR														
a)	Draw and explain the read and write cycle timing diagrams of 8086 in maximum mode.													ım 7M	
b)	Explain at least 7 assembler directives of 8086 with suitable example.														
a)	Describe the	e inte	rfaci	ng of	D/A	con	/erto	r with	ane	eat s	ketch	า.		7M	
b)	Demonstrate	e the	mod	e-2 (opera	ation	used	d in 8	255	PPI i	n det	tail		7M	
,	_ "						-								
,									-					7M	
b)	Differentiate I/O interfacing methods in 8086 microprocessor. 7N													7M	
a)	Explain hard	dware	e and	d sof	twar	e inte			808	6. De	emor	nstrat	te the interru	ıpt	
	vector table of 8086.													7M	
b)	What is the need of DMA? Draw the internal structure of 8257 DMA and explain its operation.														
							OF	R							
a)	With neat sketches explain the architecture of 8259A PIC													7M	
b)	Explain the various data transfer schemes. Specify the relative merits and demerits of each schemes.													nd 7M	
							UNI	Γ-Ιν							
a)												•	chronous a		
	synchronous mode transmission and reception using 8251A													7M	
b)	Explain various operating modes of 8253 PIT with suitable diagram. 7 OR													7M	
a)	Draw the architecture and list out the signal description of 8251A 7												7M		
b)	List out the synchronous and asynchronous data transfer schemes.											7M			
,													7M		
D)															
		9 110			•		OF	ξ						7 101	
	Illustrate the	salie	ent fe	eatur	es of		tium		Pent	ium p	oro p	roce	ssor.	14M	
	5G3 III E Mar a) b) a)	 III B.Tech. I Ser Marks: 70 Swer all five units a) Explain the ob Write an 808 a) Draw and exmode. b) Explain at leading a) Describe the bist operation a) Describe are bist operation a) Explain hare vector table b) What is the rest operation a) With neat sist operation a) With neat sist operation a) Describe may synchronous b) Explain varies a) Draw the are bist out the sist operation a) Draw the are bist out the sist operation b) Explain varies c) Draw the are bist out the sist operation 	 5G356 III B.Tech. I Semest Mia Marks: 70 nswer all five units by a a) Explain the concerb b) Write an 8086 AI a) Draw and explain mode. b) Explain at least 7 a) Describe the interb b) Demonstrate the interb b) Demonstrate the interb b) Differentiate I/O i a) Explain hardware vector table of 80 b) What is the need its operation. a) With neat sketch b) Explain the varia demerits of each a) Describe mode synchronous mode b) Explain various of a b Explain various of each a) Discuss the regis b) What is paging metabolic construction of a b and the synchronous mode 	 5G356 III B.Tech. I Semester Standing of Marks: 70 Marks: 70 mover all five units by choose a) Explain the concept of b) Write an 8086 ALP to a) Draw and explain the mode. b) Explain at least 7 assis a) Describe the interfacing b) Explain at least 7 assis a) Describe the interfacing b) Demonstrate the mode a) Describe architecture b) Differentiate I/O interf a) Explain hardware and vector table of 8086. b) What is the need of DI its operation. a) With neat sketches e b) Explain the various of demerits of each schee a) Describe mode instant synchronous mode transmission of the synchronous of the synchronous mode transmi	 5G356 III B.Tech. I Semester Supprover all five units by choosing a) Explain the concept of seg b) Write an 8086 ALP to find a) Draw and explain the read mode. b) Explain at least 7 assemble a) Describe the interfacing of b) Demonstrate the mode-2 of a) Describe architecture of 82 b) Differentiate I/O interfacing a) Explain hardware and sof vector table of 8086. b) What is the need of DMA? its operation. a) With neat sketches explained by Explain the various data demerits of each schemes a) Describe mode instructions a) Describe mode instructions a) Describe mode instructions c) Discuss the register organ c) What is paging? Draw the 80386 paging mechanism. 	 5G356 III B.Tech. I Semester Supplement Microprocess (Comm Marks: 70 a) Explain the concept of segment b) Write an 8086 ALP to find sum a) Draw and explain the read and mode. b) Explain at least 7 assembler di a) Describe the interfacing of D/A b) Demonstrate the mode-2 operation a) Describe architecture of 8255 F b) Differentiate I/O interfacing me a) Explain hardware and software vector table of 8086. b) What is the need of DMA? Drawits operation. a) With neat sketches explain the b) Explain the various data transidemerits of each schemes. a) Describe mode instruction synchronous mode transmission b) Explain various operating mode a) Draw the architecture and list of b) List out the synchronous and a a) Discuss the register organisation b) What is paging? Draw the bit 80386 paging mechanism. 	 5G356 III B.Tech. I Semester Supplementor Microprocessors (Common f Marks: 70 a) Explain the units by choosing one que ******* a) Explain the concept of segmented m b) Write an 8086 ALP to find sum of nu a) Draw and explain the read and write mode. b) Explain at least 7 assembler directive a) Describe the interfacing of D/A conv b) Demonstrate the mode-2 operation a) Describe architecture of 8255 PPI w b) Differentiate I/O interfacing methods a) Explain hardware and software intervector table of 8086. b) What is the need of DMA? Draw the its operation. a) With neat sketches explain the arch b) Explain the various data transfer sedemerits of each schemes. a) Describe mode instruction contrisynchronous mode transmission an b) Explain various operating modes of a) Draw the architecture and list out th b) List out the synchronous and asynce a) Discuss the register organisation of b) What is paging? Draw the block 80386 paging mechanism. 	SG356 III B.Tech. I Semester Supplementary E Microprocessors and (Common to C. Marks: 70 Iswer all five units by choosing one question ********* a) Explain the concept of segmented memore b) Write an 8086 ALP to find sum of number off a) Draw and explain the read and write cycl mode. b) Explain at least 7 assembler directives of Long a) Describe the interfacing of D/A convertor b) Demonstrate the mode-2 operation used OF a) Describe architecture of 8255 PPI with r b) Differentiate I/O interfacing methods in 8 Long UNIT a) Explain hardware and software interrup vector table of 8086. b) What is the need of DMA? Draw the interrup vector table of 8086. b) What is the need of DMA? Draw the interrup vector table of 8086. b) What is the need of DMA? Draw the interrup vector table of 8086. b) What is the need of DMA? Draw the interrup vector table of 8086. b) What is the need of DMA? Draw the interrup vector table of sochemes. UNIT a) Describe mode instruction control w synchronous mode transmission and read b) Explain various operating modes of 8257 of a) Draw the architecture and list out the sig b) List out the synchronous and asynchron uNIT a) Discuss the register organisation of 8022 b) What is paging? Draw the bloc	5G356 III B.Tech. I Semester Supplementary Exam Microprocessors and Int (Common to CSE & Marks: 70 Inswer all five units by choosing one question from ********* UNIT-I a) Explain the concept of segmented memory. V b) Write an 8086 ALP to find sum of numbers in mode. b) Explain at least 7 assembler directives of 808 UNIT-II a) Describe the interfacing of D/A convertor with b) Demonstrate the mode-2 operation used in 8. OR a) Describe architecture of 8255 PPI with neat of b) Differentiate I/O interfacing methods in 8086 UNIT-III a) Explain hardware and software interrupts in vector table of 8086. b) What is the need of DMA? Draw the internal so its operation. OR a) With neat sketches explain the architecture of b) Explain the various data transfer schemes. demerits of each schemes. UNIT-I-V a) Describe mode instruction control word synchronous mode transmission and receptic b) Explain various operating modes of 8253 PIT oR a) Draw the architecture and list out the signal did b)	SG356 III B.Tech. I Semester Supplementary Examinat Microprocessors and Interfor (Common to CSE & IT) Marks: 70 Inswer all five units by choosing one question from each interference of segmented memory. What b) Write an 8086 ALP to find sum of numbers in the OR a) Draw and explain the read and write cycle timing d mode. b) Explain at least 7 assembler directives of 8086 wi UNIT-II a) Describe the interfacing of D/A convertor with a nub b) Demonstrate the mode-2 operation used in 8255 OR a) Describe architecture of 8255 PPI with neat diagras b) Differentiate I/O interfacing methods in 8086 micro UNIT-III a) Explain hardware and software interrupts in 8086 vector table of 8086. b) What is the need of DMA? Draw the internal struct its operation. OR a) With neat sketches explain the architecture of 82 b) Explain the various data transfer schemes. Spe demerits of each schemes. UNIT-IV a) Describe mode instruction control word forr synchronous mode transmission and reception us b) Explain various operating modes of 8253 PIT with OR a) Draw the architecture and list out the signal descr b) List out the synchronous and asynchronous data transfer con a) Discuss the register organisation of 80286 b) What is paging? Draw the block diagrammatic 80386 paging mechanism. OR IIIustrate the salient features of Pentium and Pent	SG356 III B.Tech. I Semester Supplementary Examinations Microprocessors and Interfacion (Common to CSE & IT) Marks: 70 swer all five units by choosing one question from each ur ********* UNIT-I a) Explain the concept of segmented memory. What are the b) Write an 8086 ALP to find sum of numbers in the array OR a) Draw and explain the read and write cycle timing diagramode. b) Explain at least 7 assembler directives of 8086 with su UNIT-II a) Describe the interfacing of D/A convertor with a neat st b) Demonstrate the mode-2 operation used in 8255 PPI in OR a) Describe architecture of 8255 PPI with neat diagram b) Differentiate I/O interfacing methods in 8086 microproc UNIT-III a) Explain hardware and software interrupts in 8086. Devector table of 8086. b) What is the need of DMA? Draw the internal structure of its operation. OR a) With neat sketches explain the architecture of 8259A b) Explain the various data transfer schemes. Specify demerits of each schemes. UNIT-IV a) Describe mode instruction control word format synchronous mode transmission and reception using 8 b) Explain various operating modes of 8253 PIT with suit OR a) Draw the architecture and list out the signal descriptior b) List out the synchronous and asynchronous data transfer sout	SG356 III B.Tech. I Semester Supplementary Examinations Nor Microprocessors and Interfacing (Common to CSE & IT) Marks: 70 swer all five units by choosing one question from each unit (Explain the concept of segmented memory. What are the a b) Write an 8086 ALP to find sum of numbers in the array of 1 OR a) Draw and explain the read and write cycle timing diagrams of mode. b) Explain at least 7 assembler directives of 8086 with suitable UNIT-II a) Describe the interfacing of D/A convertor with a neat sketch b) Demonstrate the mode-2 operation used in 8255 PPI in def OR a) Describe architecture of 8255 PPI with neat diagram b) Differentiate I/O interfacing methods in 8086 microprocesso UNIT-III a) Explain hardware and software interrupts in 8086. Demor vector table of 8086. b) What is the need of DMA? Draw the internal structure of 825 its operation. OR a) With neat sketches explain the architecture of 8259A PIC b) Explain the various data transfer schemes. Specify the demerits of each schemes. UNIT-IV a) Describe mode instruction control word format in a synchronous mode transmission and reception using 8251. b) Explain various operating modes of 8253 PIT with suitable OR a) Draw the architecture and list out the signal description of 8 b) List out the synchronous and asynchronous data transfer s So386 paging mechanism. OR IIIustrate the salient features of Pentium and Pentium pro p	SG356 III B.Tech. I Semester Supplementary Examinations Novem Microprocessors and Interfacing (Common to CSE & IT) Marks: 70 Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing on from each unit (5 x 1) Inswer all five units by choosing one question from each unit (5 x 1) Inswer all five units by choosing on from each unit (5 x 1) Inswer all east 7 assembler directives of 8086 with suitable exa Inswer all east 7 assembler directives of 8086 with suitable exa Inswer and explain the read and write cycle timing diagrams of 80 Inswer all east 7 assembler directives of 8086 with suitable exa Inswer all east 7 assembler directives of 8086 microprocessor. Inswer all five units all east 7 assembler directives of 8086 microprocessor. Inswer all five and software interrupts in 8086. Demonstrative vector table of 8086. What is the need of DMA? Draw the internal structure of 8257 DP its operation. OR With neat sketches explain the architecture of 8259A PIC b) Explain the various data transfer schemes. Specify the relat demerits of each schemes. INIT-IV a) Describe mode instruction control word format in asyme synchronous mode transmission and reception using 8251A b) Explain various operating modes of 8253 PIT with suitable diag OR a) Draw the architecture and list out the signal description of 8251. b) List out the synchronous and asynchronous data transfer	Barbon Section 2019 B	