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		Name of FDMA and TDA	e
AMGT IDMA	B.TECH. DEGREE EXAMINA	ATION, NOVEMBER	2011
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	1.0-		ng
		T) DATE CONTRACTOR (T)	
	ADVANCED COMMENTE	entary)	(b) Explain the fea
	(Suppleme	entary)	Maximum : 100 Marks
Time: Three	ee Hours		
		questions.	
	Part	cepts and applications A	too add analyzed (4)
	Fach question co	arries 4 marks.	III (n) Bicetch and exp
1 3375	nat are geosynchronous satellites? Explain	their advantages and lim	itations.
	1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	110	
2. Ex	hat is meant by orthogonal signals?	december of ICH appropriate	
4 84	ate the properties of the 'Codes' used in CD	MLA.	
5 W/	hat are the different sources of interference	e in mobile communication	nsystems?
6 WI	hy is the cell usually organized as hexagon	n in mobile communication	1.?
7. W	hat are the information contained in subsc	riber identity module?	
g Tely	rolain the functions of Base Station control	ller in GSM.	
9. Di	istinguish between slow and fast frequency	y hopping CDMA systems.	ı
10. W	hat is meant by jamming margin in DS-CI	DMA?	$(10 \times 4 = 40 \text{ marks})$
			$(10 \times 4 = 40 \text{ marks})$
	Par	rt B	
	Each question c	carries 12 marks.	(0. 1.)
11 (a	a) Explain parabolic reflector antenna and	d its gain pattern.	(6 marks)
11. (a	1 loss ver	rsus frequency for different	satellite distances. Explain (6 marks)
(~	its significance.		(•
		Or	
12. (8	a) Define the following:		
	(i) EIRP.		(4 marks)
			(= ===================================

(b) With a block diagram explain the different units in a satellite transponder.

(ii) Noise figure.

13. (a) Explain the switched-TDMA concept.

(8 marks) (6 marks)

(6 marks)

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		(I 2 square)		uržio ni
14	l. (a)	Compare the features of FDMA and TDMA.		F 9011
	(b)	Explain how network synchronisation is achieved to	(6	marks)
15	. Ex	Explain how network synchronisation is achieved between satellite and earth static system.	on in (6	TDMA marks)
		plain the strategies involved in channel assignment.	(12	marks)
16	. (a)	What is the need of a table of the second of		
	(b)	What is the need of sectoring? Discuss the different methods	(6)	marks)
17			(61	marks)
	o Maa	ch a block diagram explain GSM architecture.	(12 1	marks)
18.		Or		Tamp'
10,	(a) (b)	What are the different logical channels in GSM? Explain.	(6 г	narks)
19.		Explain the concepts and applications of GPS.		narks)
10.	(b)	Sketch and explain a scheme to generate PN sequence.		_
	(D)	Explain the performance of DS-spread spectrum in antijamming applications.	(6 n	narks)
00	D'	Or abbreakers from Apr. 176 1		
20.	Disc	ass the hoise performance of FH spread spectrum in AWGN channel.	19 m	norka)
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		and the state of t		Egi.
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		inguish between slow and that frequency hopping COMA systems		
(solt		(i. he magnet by Jamming conspin to DS-CDMA?)	H/W	
		ii Figg		
	nor (H	Explain parabolic reflector universe and its gass putture.		
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B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

Electronics and Communication Engineering, Applied Electronics and Instrumentation and Electronics and Instrumentation Engineering

ADVANCED MICROPROCESSORS (LAS)

[Supplementary] and Instrument and are limby (at 1)

Time: Three Hours

Maximum: 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

- 1. Describe the FKg bits in 8086 processor.
- 2. What is meant by DMA? Explain briefly.
- 3. Explain register direct and indirect addressing. Modes in 8086 with examples.
- 4. What is meant by scaled addressing and relative addressing? Give examples.
- What are the advanced features of 80286 processor compared to 8086 processor.
- 6. Discuss briefly what is meant by protected mode of operation.
- 7. Explain the terms memory segmentation and virtual memory.
- 8. What are the various interrupts in 80386 processor? Briefly explain the interrupt handling.
- 9. Compare RISC and CISC architectures.
- 10. Write a short note on MMX technology.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Each question carries 12 marks.

- 11. (a) Describe with necessary diagrams the minimum mode and maximum mode of operation in 8086.
 - (b) What are the various multiprocessor configurations.

Or

- 12. (a) What is meant by memory banking? Describe briefly on even and odd memory banks.
 - (b) Describe the interrupt vector table in 8086 processor.
- 13. Describe with suitable examples the various data addressing modes in 8086 processor.

Or

- 14. (a) Describe with examples program memory addressing modes.
 - (b) Give examples stack memory addressing.
 - 15. With a neat block diagram explain the internal architecture of 80286 processor.

- What are descriptors and selectors? Explain the various descriptors associated with 80286 16. (a) processor.
 - (b) Explain the protected mode of operation in 80286 processor.
- 17. (a) What are the functions of the following pins in 80386 processor?
- (i) BEo#-BE3#
 - (ii) ADS #.
 - (iii) NA #.
 - (iv) BS16.
 - (v) D/C.
 - (b) Explain the real mode of operation of 80386.

- 18. (a) What is meant by paging? Describe the paging mechanism in 80386 processor.
 - (b) Describe the task switching in 80386.
- 19. Describe the model of 80486 processor. How pipelining is incorporated in 80486?

Or

What is meant by superscalar architecture? Describe the superscalar architecture of pentium processor.

 $(5 \times 12 = 60 \text{ marks})$

Describe with necessary diagrams the minimum mode and maximum mode of operation

(b) What are the various multiprocurier configurations.

What in mount by memory banking? Describe hearly on even and old memory banks

(b) Describe the unrecept vector table in fi080 processor

Describe with wattable examples the various data addressing andes in since promum.

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

Branch: ECE/Applied Electronics and Instrumentation/ Electronics and Instrumentation
Engineering

COMPUTER NETWORKS (LAS)

(Supplementary)

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

- 1. Write a note on protocol data unit.
- 2. Write a note on TCP/IP.
- 3. Write a note on U-format in HDLC.
- 4. Write a note on polling.
- 5. Write a note on the frame format in a ring network.
- 6. Write a note on call establishment in switched virtual circuits.
- 7. Write a note on the role of session layer.
- 8. Write a note on ARPANET.
- 9. Write a note on SONET.
- 10. Write a note on synchronisation in ATM networks.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Answer any **five** questions. Each question carries 12 marks.

11. Explain the ISO-OSI model of a network.

Or

- 12. Explain different media used in guided transmission.
- 13. Explain CCITT × .21 recommendations for circuit switched networks?

Or

14. Explain sliding Window flow control mechanism in DLL.

Turn over

15. Explain CSMA / CD.

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- 16. Explain the different LAN lopologies.
- Explain the underlying principles in cryptography.

18. Explain authentication protocols.

Or or or

19. Explain different ASEs used by application processes.

Or

20. Explain AAC type 3/4.

 $(5 \times 12 = 60 \text{ marks})$

Purt II.

F 9011	(Pages: 2)	Reg. No
	AMSET book A	Name
AMOT al asina fairsan 31	B.TECH. DEGREE EXAMINATION, N	NOVEMBER 2011
	Eighth Semester	
	Branch-Electronics and Communicati	ion Engineering
	A Discourage of the second contract of the second of the s	
	(6	
Internation (II)		Maximum: 100 Marks
Time: Three Ho		
(Branchart B)		In the What are the different logical
instance 8):		(b) Explain the concepts and appli-
(natruum 87	Each question carries 4 mar	rks. rades a minigra han absect (a) 41
1. What are	e geosynchronous satellites? Explain their adva	ntages and limitations.
2. Explain	the need of LNA and its functioning.	
	meant by orthogonal signals?	
4. State the	e properties of the 'Codes' used in CDMA.	
5. What are	e the different sources of interference in mobile of	communication systems ?
6. Why is the	the cell usually organized as hexagon in mobile c	communication.?
	e the information contained in subscriber identif	
	the functions of Base Station controller in GSM.	
	ish between slow and fast frequency hopping Cl	DMA systems.
10. What is	meant by jamming margin in DS-CDMA?	$(10 \times 4 = 40 \text{ marks})$
		$(10 \times 4 = 40 \text{ marks})$
) .	Part B	
	Each question carries 12 mo	(0 1)
11. (a) Exp	plain parabolic reflector antenna and its gain pa	ttern. (6 marks)
	t curves showing propagation loss versus frequencesignificance.	cy for different satellite distances. Explain (6 marks)
	Or	
12. (a) Def	fine the following :	
	(i) EIRP.	
	(ii) Noise figure.	(4 marks)
(b) Wit	th a block diagram explain the different units in	a satellite transponder. (8 marks)
		10

Or

13. (a) Explain the switched-TDMA concept.

(b) Explain the signal to ratio aspects in FDMA system.

Turn over

(6 marks)

(6 marks)

		2	F 9011
14	. (a)	Compare the features of FDMA and TDMA.	(6 marks)
	(b)		ation in TDMA
15	. Ex	plain the strategies involved in channel assignment.	(6 marks) (12 marks)
		- determined mother man Or property services of	(12 marks)
16	(a)		(0 1)
	(b)	Explain the features of bluetooth technologies.	(6 marks)
17.	Wi	th a block diagram explain GSM architecture.	(6 marks)
		Or Street	(12 marks)
18.	(a)	What are the different logical channels in GSM? Explain.	(6 marks)
	(b)	Explain the concepts and applications of GPS.	(6 marks)
19.	(a)	Sketch and explain a scheme to generate PN sequence.	(6 marks)
	(b)	Explain the performance of DS-spread spectrum in antijamming applications.	(6 marks)
		Or grimilaria all has AVAL by Transpare	
20.	Dis	cuss the noise performance of FH spread spectrum in AWGN channel.	(19 marks)
			2 = 60 marks
		The different source of the so	

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

Electronics and Communication Engineering, Applied Electronics and Instrumentation and Electronics and Instrumentation Engineering

ADVANCED MICROPROCESSORS (LAS)

[Supplementary]

Time: Three Hours

Maximum: 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

- 1. Describe the FKg bits in 8086 processor.
- 2. What is meant by DMA? Explain briefly.
- 3. Explain register direct and indirect addressing. Modes in 8086 with examples.
- 4. What is meant by scaled addressing and relative addressing? Give examples.
- 5. What are the advanced features of 80286 processor compared to 8086 processor.
- 6. Discuss briefly what is meant by protected mode of operation.
- 7. Explain the terms memory segmentation and virtual memory.
- 8. What are the various interrupts in 80386 processor? Briefly explain the interrupt handling.
- 9. Compare RISC and CISC architectures.
- 10. Write a short note on MMX technology.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Each question carries 12 marks.

- 11. (a) Describe with necessary diagrams the minimum mode and maximum mode of operation in 8086.
 - (b) What are the various multiprocessor configurations.

Or

- 12. (a) What is meant by memory banking? Describe briefly on even and odd memory banks.
 - (b) Describe the interrupt vector table in 8086 processor.
- 13. Describe with suitable examples the various data addressing modes in 8086 processor.

Or

- 14. (a) Describe with examples program memory addressing modes.
 - (b) Give examples stack memory addressing.
- 15. With a neat block diagram explain the internal architecture of 80286 processor.

- 16. (a) What are descriptors and selectors? Explain the various descriptors associated with 80286 processor.
 - (b) Explain the protected mode of operation in 80286 processor.
- 17. (a) What are the functions of the following pins in 80386 processor?
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 - (ii) ADS #.
 - (iii) NA #.
 - (iv) BS16.
 - (v) D/C.
 - (b) Explain the real mode of operation of 80386.

- 18. (a) What is meant by paging? Describe the paging mechanism in 80386 processor.
 - (b) Describe the task switching in 80386.
- 19. Describe the model of 80486 processor. How pipelining is incorporated in 80486?

20. What is meant by superscalar architecture? Describe the superscalar architecture of pentium processor.

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12. (a) What is mean by memory harding? Dimental briefly or even sad out memory hardin

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

ECE/Applied Electronics and Instrumentation Engineering

VHDL (Elective II) (LA)

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Time: Three Hours

(6 × 12 = 60 market

Maximum: 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

- 1. Describe entity declaration in VHDL.
- 2. How are arrays represented in VHDL.
- 3. When do we use a 'Next' statement in VHDL?
- 4. How does a behavioural modelling differ from data flow modelling?
- 5. What is configuration?
- 6. What is incremental binding?
- 7. Why is overloading used in VHDL?
- 8. How does implicit visibility differ from explicit visibility?
- 9. How is a qualified expression useful in VHDL?
- 10. How are guarded signals assigned in VHDL.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Each question carries 12 marks.

11. Describe the different classes of data objects in VHDL.

Or

- 12. Describe the different types of operators used in VHDL.
- 13. Write a VHDL program to find the factorial of the given numbers in an array.

Or

14. Describe a 3 × 8 decoder using sequential statements.

Turn over

15. With an example, show how configuration is implemented in VHDL.

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- 16. Design a multiplexer using generic statements.
- With an example, show how 'AND' operator can be overloaded. gainenigall collapsemental of a soluginis

- With an example, show how a package is declared and used in VHDL.
- 19. Write a VHDL program to detect 1011 in Moore model. Overlapping sequences are accepted.

Or

20. Write a test bench program for a 4 bit counter circuit.

 $(5 \times 12 = 60 \text{ marks})$

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B.TECH. DEGREE EXAMINATION, NOVEMBER 2011

Eighth Semester

Branch: Electronics and Communication Engineering, AE and Electronics and Instrumentation Engineering

MULTIMEDIA SYSTEMS (Elective III) (LAS)

(Supplementary)

 $16 \times 12 = 60 \text{ market}$

Time: Three Hours

Answer all questions.

Part A

Each question carries 4 marks.

- 1. Briefly explain the need for multimedia authoring tools.
- List some applications for multimedia. Give brief description.
- What is hyper text? Discuss how is it powerful in multimedia context.
- What do you understand by lossy compression? Explain.
- Write notes on CD-I.
- Explain Microsoft Multimedia Extensions.
- Discuss synchronization issues.
- Discuss the use of transform classes.
- 9. What are the applications for image synthesis?
- 10. Write notes on multimedia network.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Each question carries 12 marks.

11. Explain in detail some of the hardware output devices.

(12 marks)

- (a) Discuss how digital audio is superior to analog audio.
 - (6 marks)
 - (b) Write notes on computer animation. (a) Describe the MPEG standard.

(6 marks) (6 marks)

(6 marks)

(b) Discuss the file types for images.

14. Discuss the various audio standards for multimedia. Compare them.

(12 marks)

Turn over

15. Discuss the principle of DVI.

- 16. Explain the features of the members of compact disk family.
- 17. Explain in detail the principle and issues in synchronisation. base introvitation time AA aminopolitical Or militarione

- 18. Explain the use of classes in multimedia programming.
- 19. Explain the concepts of virtual reality. Discuss its applications.

20. What is full motion video? Discuss its need, technical hurdles and applications. Or

 $[5 \times 12 = 60 \text{ marks}]$