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Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.



15EC81

Eighth Semester B.E. Degree Examination, July/August 2022 Wireless Cellular and LTE 4G Broadband

	Wireless	ess Cellular		LIE 40	Bioaubana
Time 2 her					Max. Marks: 80

	Tim	e· 3	hrs.	KS: 80
	1 111.	10. J	te: Answer any FIVE full questions, choosing ONE full question from each mod	dule.
		No	te: Answer any FIVE jun questions, choosing	
Se			Module-1	(04 Marks)
actic	1	a.	What are the key enabling features of LTE?	(08 Marks)
lpra		b.	Explain with necessary diagram LTE network architecture.	(04 Marks)
ma		C.	What are the advantages of OFDM in LTE?	(
g blank pages. = 50, will be treated as malpractice.			OR	
eate				(04 Marks)
e tr	2	a.	Explain cellular concept in wireless communication.	(06 Marks)
oage III b		b.	Explain effect of fading in communication.  Explain effect of fading in communication.	(06 Marks)
nk j		c.	Explain effect of fading in communication.  Explain coding and other learning technique with necessary encoder technique.	
bla = 50			Module-2	
ing +8 :				(04 Marks)
42	3	a.	Explain basics of OFDM.	(08 Marks)
eg,		b.	With necessary block diagram, explain OFDM and OFDM in LTE network.	(04 Marks)
the		C.	Explain concept of SC-FDE.	
on wri			OR	
ines				(08 Marks)
ss l uati	4	a.	Explain OFDM-FDMA, TDMA and CDMA.	(08 Marks)
cro r eq		b.	Briefly explain with diagram, working operation of OFDM.	
onal d/o			Module-3	
liag ran				(08 Marks)
ıw d	5	a.	Explain design principles followed in LTE.	(08 Marks)
dra		b.	Explain logical and transport channels of LTE.	
rily o ev			OR	
ulso eal t				(08 Marks)
ump	6		Explain convolution turbo coding.	(08 Marks)
s, co		b	Explain in brief multicast channels of LTE.	
vers			Module-4	
ansv			Explain uplink control information of LTE physical layer.	(08 Marks)
our	7	7 a	Explain uplink control information of 212 page.  Explain formats of PUCCH 1, 1a, 1b, 2a, 2b.	(08 Marks)
g ye		t	Explain formals of Pocciff 1, 14, 16, 24, 25	
etin Jing			OR	
mpl			Explain channel quality indicator and estimation techniques.	(08 Marks)
col y re			1-margod random access DIOCEUMO.	(08 Marks)
On An		1	Explain non-synchronized random access process.	
.1.			Module-5	
ote			to and functions of PDCP	(08 Marks)
Z			- 1 TIDO addure also in hriel blve lile lile states with	(08 Marks)
Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. 2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be the			b. Explain HRQ procedure, also in orier give the	
odu			OR	
II			a. With timing diagram, explain mobility management over the SI interface.	(08 Marks)
		10		(08 Marks)
			* * * *	