			CBCS SCHEME	
1. TE 08 P	USN			18MT46
18 wer	Ę.	1	Fourth Semester B.E. Degree Examination, June/July 2024	ļ
A Course	1400	3)	Instrumentation and Measurements	
131 ode	Tin	ie: 2	3 hrs. Max. M	[arks: 100
No C		N	ote: Answer any FIVE full questions, choosing ONE full question from each mo	dule.
N. English	and a start	S.P.	Module-1	
trice,	1	a.	Explain the working of deflection type and null type instruments with neat diagram	ms. (10 Marks)
orily draw diagonal cross lines on the remaining blank pages. to evaluator and /or equations written eg, $42+8 = 50$ , will be treated as malpractice.		b.	Explain the functions and applications of instrument and measurement systems.	(10 Marks)
ma				
ed as			OR	
reat	2	a.	With neat block diagram, explain the elements of generalized measurement system	
ges. I be t		b.	Explain the different methods of correction for interfering and modifying inputs.	(10 Marks) (10 Marks)
On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or equations written eg, $42+8 = 50$ , will be		0.		(10
blan = 50,			Module-2	
+8 =	3	a.	Explain the working of voltage to frequency converter type DVM.	(10 Marks)
, 42-		b.	Explain the successive approximation type DVM with an example.	(10 Marks)
e ret			OR	
in th ritte	4	a.	Explain the working of digital multimeter with neat block diagram.	(10 Marks)
les c hs w	-	b.	Explain the working of digital frequency meter.	(10 Marks) (10 Marks)
atio				
cros			Module-3	
onal d /oı	5	a.	Explain the working of CRT with neat block diagram.	(10 Marks)
diag or an		b.	Explain the dual beam oscilloscope with necessary diagrams.	(10 Marks)
raw luato			OB	
lly d eval	6	a.	Explain delayed time base oscilloscope with neat diagram.	(10 Marks)
lsori al to		b.	Explain the working of digital storage oscilloscope with neat diagrams.	(10 Marks)
On completing your answers, compuls Any revealing of identification, appeal				
s, co on, a	_		Module-4	
wers	7	a.	Explain the working of Wheatstone bridge and derive the condition for balance.	(10 Marks)
ans ans		b.	Explain the working of Kelvin bridge and derive the condition for balance.	(10 Marks)
your f ide			OR	
ing o gu	8	a.	Derive the expression for frequency of oscillations in Wein's bridge with	neat circuit
ıplet 'cali			diagram.	(10 Marks)
con y rev		b.	With neat diagram, explain Wagner's earth connection.	(10 Marks)
On			Module-5	
.1.	9	a.	Define transducer and explain the factor need to be consider in selecting a transdu	icer.
Note				(05 Marks)
ant		b.	Explain the working of Resistive position transducer.	(05 Marks)
Important Note : 1.		C.	Explain the construction and working of LVDT.	(10 Marks)
IIr			OR	
	10	a.	Explain the working of piezoelectric pressure transducer.	(10 Marks)
		b.	Explain the construction and operation of thermo couple.	(10 Marks)
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