CBCS SCHEME

1000	CONTRACTOR CONTRACTOR	Carried States	· · ·					
S	U	E O					824	18MT71
US	ME	A						
	d):	10	Seventh	Semester B	E. Degre	e Examin	ation, Jan./Feb. 202	3
Det	9 445	KS-1		In	dustria	I Roboti	cs	
a fri			34			4.0		Marks: 100
CI	im	e: 3	hrs.			Cary -		
	A PA	AL	ta. Answar	any FIVE full o	uestions, ch	oosing ONE	full question from each m	odule.
		IVC	ne. Answer	uny 11, 2 june 4				
					1:00	dule-1	rial Automation.	(10 Marks)
1		a.	Define Au	tomation. Explain	amerent ty	pes of madsu	That I have been seen as a	(10 Marks)
		b.	Describe h	istory of Robotic	8.		4	
				A		OR		(10 Mayles)
	2	a.	Define a R	obot. Classify Ro	bots based	on their config	gurations.	(10 Marks) (10 Marks)
	7	b.	Write a sh	ort note on Appli	cations of R	obots in Indus	stries.	(10 Marks)
			•		M	ndule-2		
	•		White a ch	ort note on differ	ant types of	drive systems	s used in Robots.	(10 Marks)
	3	a. b.	Evolain R	obot Anatomy an	d different t	ypes of joints	used in Industrial Robots.	(10 Marks)
		υ.	Explain R					
ĥ				*	4 I	OR	all lavouts.	(10 Marks)
	4	a.	With neat	diagrams, explai	n common in	selection and	design of Robot Grippers.	(10 Marks)
		b.	List out a	nd describe consi	derations in	Selection and		4
A CITI					<u>M</u>	odule-3	o Commission on	maga damner
dall	5	a.	Derive th	ne mathematical	model and	transfer fund	ction equation for spring	(10 Marks)
eal to evaluator and /or equations written es			evetem				44	(10 Marks)
0/ 0		b.	Explain c	lifferent position	sensors used	i in Robots.		
or ar			e .			OR	X, **	(10 Marks)
Inan	6	a.	Explain o	lifferent function	s of sensors	in Robots.	: Datata	(10 Marks)
eva		b.	Write a s	hort note on diffe	erent types o	f motors used	in Robots.	(2011-11-11)
al tc					A YN	Iodule-4		
appe	7	0	With the	help of block	diagram, ex	plain function	ns and steps involved in	machine vision
on,	7	a	system.	, no.p		Anna		(10 Marks)
icati		b	. With a c	ase study, describ	be the applic	ation of mach	nine vision system in Robo	iles. (10 Marks)
entif						OR		
of id			TT 71: 4		rs? Explain	the working	of proximity sensors.	(10 Marks)
Any revealing of identification, appr	8		. What are	Tactile sensors.	With a neat	figure, explain	n the working of Force Ser	nsor. (10 Marks)
veali		Ĺ	classify	T do the sense				
y re						Module-5	nrogramming	(10 Marks)
. An	9) a	a. Explain	capabilities and	limitations C	otions of Robe	ot Programming Language	
2.		1	o. Write a	short note on dif	rerent genera	ations of Root	0(1108:44:2	
ann por man rodinir				4		OR		(10 Marks)
	1	0	a. Describ	e different metho	ods used in r	obot program	ming.	(IU Marks)
ipor	Ī		b. Explair	the following te	rms used in	robot progran	nming:	
=			(i) N	lotion Interpolation	on			
				ait, signal and de	eiay			(10 Marks)
			(iii) B	ranching				

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 treated as malpractice.