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	method	The mechan O1A = 100 1 O2D = 200 rad/s Find	The crank makes 18 dead Centre position 2) angular velocity from gudgeon pin, crosshead when the	Solve Any O	(b) State a	(c) (a) Define	(a) Body α  v If the links mov  (a) (ω <sub>1</sub> -ω <sub>2</sub> vi Direction of lin  on same link is  (a) Paralle		Solve  i A kinem (a) 1 (c) ii Which o	Instructions to the Students: 1. Figures to the right 2. Assume suitable da	Subject Name: Max Marks: 20	Course: B. T	DR. BABA
	200 m	ism of a wrappi nm ,AC =700 n mm and BD = the velocity of	The crank makes 180 rpm dead Centre position, determ 2) angular velocity of conn from gudgeon pin, 4) velocrosshead when the diamete	Solve Any One of the following.	d Explain Kenı	At 45° to the li Kinematic pair.	<ul> <li>(a) Body centrod le links moves in op (a) (ω<sub>1</sub>- ω<sub>2</sub>)</li> <li>(cection of linear velo same link is</li> <li>(a) Parallel to link</li> </ul>	(a) Watts indicator diagram (c) Elliptical Trammel Lead screw of a lathe with nut f (a) Sliding pair (b) Rollin The locus of the instantaneous c body is called as	nematic chain is known as a n (a) None of the link fixed (c) Two of the links are fixed ich of the following is an inven	the Students: es to the right ne suitable da	Subject Name: Theory of Machine - Max Marks: 20	Mid ch in Mechan	SAHEB AM
	A 300 mm	The mechanism of a wrapping machine, as shown in figure, has the dimensions are O1A = 100 mm, AC = 700 mm, BC = 200 mm, O2C = 200 mm, O2E = 400 mm, O2D = 200 mm and BD = 150 mm. The crank O1A rotates at a uniform speed of 100 mm. The crank O1A rotates at a uniform speed of 100 mm.	The crank makes 180 rpm in clockwise direction. When it has turned 45° from inner dead Centre position, determine by relative velocity method, 1) velocity of piston, 2) angular velocity of connecting rod,3) velocity of point E on connecting rod 1.5nr from gudgeon pin, 4) velocities of rubbing at the pins of crankshaft, crank and crosshead when the diameters of their pins are 50 mm,60 mm and 30 mm respectively.	Solve Any One of the following.  The crank and connecting rod of a steam engine are 0.5 m and 2 m long respectively.	State and Explain Kennedy's Theorem	(c) At 45° to the link joining 2 points Define Kinematic pair. Classify in detail	<ul> <li>(a) Body centrod (b) Space centrod (c) Axode (d) Indicates (d) Body centrod (b) Space centrod (c) Axode (d) Indicates (d) Indicates (d) Indicates (d) Indicates (e) (d) (ω<sub>1</sub> - ω<sub>2</sub>) (d) (ω<sub>1</sub> + ω<sub>2</sub>) (d) (ω<sub>1</sub> - ω<sub>2</sub>) (d) (ω<sub>1</sub> - ω<sub>2</sub>)</li> <li>(b) (ω<sub>1</sub> + ω<sub>2</sub>) (d) (ω<sub>1</sub> - ω<sub>2</sub>) (d) (π.ω<sup>2</sup>)</li> <li>(c) Direction of linear velocity of any point on a link with respect to another point on same link is</li> <li>(a) Parallel to link joining 2 points (b) perpendicular to link joining 2 points</li> </ul>	(a) Watts indicator diagram (b) Elliptical Trammel (d) All of these (e) Elliptical Trammel (d) All of these (e) Sliding pair (e) Screw pair (f) The locus of the instantaneous centre in space during a definite motion of body is called as	A kinematic chain is known as a mechanism when  (a) None of the link fixed (b) One of the link is fixed (c) Two of the links are fixed (d) None of these  Which of the following is an inversion of single slider crank chain?	ons to the Students: Figures to the right indicates full marks Assume suitable data, if and wherever necessary	Machine - I  Date:-	Mid Semester Examination - March 2019  B. Tech in Mechanical Engineering  Se	DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE
	B B A00 mm	shown in figur nm, O2C = 200 rank O1A rotat e bell crank le	irection. When velocity methovelocity of poining at the pinare 50 mm,60 n	ngine are 0.5 m	1	ail (d) None of these	od (c) Axoue , rubbing veloc (d) \( \omega \). It on a link with (b) perpendic	(c) Beam engine (d) All of these (c) Screw pair (d) 7 1 space during a defin	nism when (b) One of the lin (d) None of these of single slider crank of	marks ever necessar	Ÿ	camination -	CHNOLOG
	0	e, has the dim mm, O2E = 4( es at a uniforn ver by instant	then it has turned 45° ethod, 1) velocity of point E on connecting pins of crankshaft, 60 mm and 30 mm re	and 2 m long		of these	(d) reduced the control of the contr	(P .CT. (TC)	when (b) One of the link is fixed (d) None of these ngle slider crank chain?	y	Su Dı	March 2019 Se	ICAL UNIV
		ensions are 00 mm, n speed of 100 aneous Centre	15° from inner of piston, ting rod 1.5m and the crank and respectively.	respectively.			other point ning 2 points	Pair on of the	Š.		Subject Code: BT-N Duration:- 1 Hr.	19 Sem : III	ERSITY, LO
					3					-	BT-MEC 402 Hr.		NERE )
					<b>x</b>	3*2			6	Marks			