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# MECHANICAL ENGINEERING BOARD

IV.	LAC	HINE DESIGN & THEORY OF MACHINES	
Time:	3 Но	urs   [ Max. Marks : 1	00
Notes:	(1)	Question No 1 is compulsory.	
	(2)	Answer any two full questions from Sections - II, III & IV.	
	(3)	Missing data may be suitably assumed.  SECTION -1  I in the blanks:	
		SECTION -1	
1. (a)	Fil	l in the blanks : 5 × 1 ·	- 5
	(i)	Shaft with collars at both ends fitted in a circular hole is pair.	
	(ii)	Two shafts A and B are of the same material. Diameter of A is twice as that of B. The power transmitted by the shaft A will be times that of by Shaft B.	
	(iii	The frictional torque transmitted in a flat pivot bearing considering uniform pressure is	
	1572	The size of the cam depends upon	
1	(v)	The power transmitted by a belt is maximum when the maximum tension is equal to times the centrifugal tension.	
(b)	Sk	etch and explain elliptical trammel.	5
		SECTION - II	
2. (a)	De	fine the following:	4
	(i)	Kinematic pair	
	(ii)	Structure	
(b)	Di	fferentiate machine and structure.	4
(c)	Ex	plain with neat sketch, the Oldham's coupling.	7

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