	Paga No.
	Date
	Name - Shreerang Mhatre
	Rollno - 111056
	Division - Il poi coniged hours down in Anta Ga
	Class - BME
100	Batch = k3 out at a consider to the bound of the
	Date - 3/10/2021 Mais to testing of
700	TOPIC - BME Assignment-1
0 8	O Med Danical anginers and y the principle
	nechance and every to the design of
.35	mediantes and desides
-	Less of and privating that arrow and (a)
7	the generalization and application of head
	and use of machines and hadsiss calle
	mechanical engineering must altique
0	(1) Mechanical Engineening is prebably the 18
rd	ner of many branches of Exiginatering and
	of op arimmy we are their companion up to
	present los established and a service and a service as
	to very large by the analysis of the second
	(Se) What are the various branches of
	Marufacturing Engineraring
	Committee on the same of the s
10	453 The various branches of Manufacturing a
	(Dimechanics)
	(2) Kine monds
	Control of the point and the p
	- A madising Totals and model toloricabions
	Ocumputes Integrated manifesturing
	(C) Mecha branics:
	(1) Textile engineering. (3) Advanced comparite materials.
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Unit-1

(SI) What is Mechanical Engineering?

Ans Direction I engineering is the largest and one of the oldest disciplines; broadest of all engineering disciplines.

2) Mechanical engineers apply the principles of mechanics and energy to the design of mechanics and devices

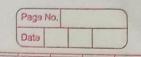
(3) The branch of engineering that encompasses the generation and application of heat and mechanical power and the design, production and use of machines and tools is called mechanical engineering.

Mechanical Engineering is probably the forerun ner of many branches of Engineering and has persistently been their companion up to the present.

(36) What are the various branches of Manufacturing Engineering?

Ans > The various branches of Manufacturing engine-

- 1 Kinematics
- 3 Drafting
- 9 Machine Tools and Matel Fabrication-
- 6 Mechatronics.
- 1) Textile engineering.
- (8) Advanced composite materials.



gil) List any 2 inventions where mechanical engineering and your discipline (branch of engineering) have contributed together

and Electrical & computer Engineering have contributed together are-

DELECTRIC Vehicles
Electric vehicles have steadily been gaining in popularity, and they are almost certainly the vehicles of the future because of their energy efficiency and reduced carbon emissions. Automatic gear technology, advanced battery and computer technology, energy management systems etc are making Evs ever more efficient and appealing to the mass-market.

different e.g. Rectangular causes minimum vi

Robotics is an interdisciplinary field that integrates fields of mechanical, electrical computer, mechanics, computer, software etc engineering. Robotics dove loves machines that can substitute for humans and replicate human actions. Many robots are built to do jobs that are hazardous to people, such as defusing bombs, finding survivors in unstable ruins, and exploring machine mines and shipwecks etc.

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on Unit - 2 miloavois you tou (10

Q.1) Differentiate between Axle and shaft

1	1	differentiate between		Axie and Shaft.	1
_					
1	1	Axle manning	9	sient shaft and co	I
V	0	Axle is a non rotating	0	shaft is rotating	
		member - ovo			
	2	Primary function is to	2	Primary function is	
		provide support to		to transmit torque.	
9	00	elements like wheely		(9V simple ve)	
0		pulley etcil ban with	5/4	Boyang of position	
0		Axle is subjected to	3	Shaft is subjected to	
Y	0	bonding moment		bending moment, as	
		atic gear technology	VV	well as torsional	
1	00	Loudest spaturemen bun		moment (to rave)	
15	9	Depending upon loading	9	cross sectional area	
1	a	condition, cross sectional	1	of shaft is generally	
9		area of axle can be		eircular because it	
		different e.g. Roctangular		causes minimum vibratio	
		, circular, I-section,	39.8	ns and peaking of	
	6	T-section etc. byorday		torsional stress. (For a	
V	1	ale chargedong 76 ship	-	given cross section are	1
1		apropies, computer so		aircular shape provides	
10	1	Reporte dans logs not		minimum peak stress	
2	10	194 but sandon of 91		inder same torsional	
34	1	of thed are staden van	M	loading)	
9	(5)	Examples: Axles of	3	Examples shaft of	
1	1	automobiles, vailvau		electric motor, shart	
	-	buggies a sail and sail	-	of IC engine	

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of what is Grear Ratio? Also explain functions of gear.

Ans > Grear Ratio -

The ratio of the angular speed of the initial or driving member of a gear train or equivalent mechanism to that of the final or driven member (specifically: the number of orgine revolutions per revolution of the rear wheels of an automobile) is called as gear ratio.

Functions of Gloar ave.

- 1) Greats for setting the Rotate speed
- 3 Gears for Transmitting Power
- 3 Grears for changing Torque 30 Ho
- Glears for changing the Power Direction.

OII) Differentiate between VBelt and Flat Belt

	Flat Belts		V-Belts	I
-	Dlarge centre distances	0	Smaller contre distances	
	2 More flexibility in centre	2	Less flexibility in centre	
	to centre distance		distances.	
	adjustments.			
-		3	slip is very less	
			cost is more.	
	El cross section is rectangular			
- 11			Higher efficiency.	
	D Pulley sizes are more			
-			prives are compact.	
(9 wide range of materials			١
	leather, cotton, fabric, etc		materials are used.	

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(316)	16) How are machine elements classified?						
		YAGA T					
Ans >	> The classification is as follows -						
-7	AND A PA PAGE	Mac	hine Elements				
	un on aind x		of far poderson				
	print to love			Me mand sold			
V-)			Supporting Type				
2100	Mysor sall		cochilosox saci	Elements			
×->-			los la Validam				
×->	Keys		Body Frame	Grears			
A P	couplings	foto	Bearings	Pullays &			
1			Frames	Beits			
×->-		1	T paripands	Sprockets&			
- CA	power pivectic			chains !			
~	(412 1 117 13 13 13			dutches			
44-	that the hour	11108	IN volutor a.	(all) oillerealta			
200	V-Belts		24108	Hol			
29770			D'esnateib av				
and or	of villations	1626	@ manaixtildi	x9B axama			
A	1 29300	Haih	Listano Mark	artanol			
×	The state of the s	A	1169 1.26	pontanito			
W.	esal evan es	qila	(a) (1) (1) (a) (b)	n a 9/2 (6)			
· lobio	· Syon air	foot	(1)	GIACOS COST			
A4 _	V MOINTA	200 V)	a war in	1500 BENNE			
Q-	allogia avo avo	Well !	A gypen gyp eg	HO PAROLO			
~	are are compar	Wird	(a) UNIMO O	Vov a Decolia			
1 00	And how waddon	VIOR	Melnington a	som show (b)			
	hors are shin	odna	the sador and	100 they co			