

Lesson Plan

Name of faculty : RAJAN SARIN

Discipline : Automobile Engg

Semester : VIth

Subject : Tractors and special Purpose Vehicles

Lesson Plan duration : Jan - April 2018

Work load (Lec/Prac) : 03 Hrs (Lecture)
per week in hrs

Week	Lecture day	Theory	Practical
		Topic (including assignment/test)	Topic
1st	1	Classification of tractors	N/A
	2	Main tractor assemblies	
	3	Types of engine used	
2nd	4	Human factors in tractor design	
	5	Application of tractors	
	6	Basic trends in tractor design	
3rd	7	forces acting on a tractor	
	8	Tractor stability	
	9	Types of clutch used in tractors	
4th	10	Transmission system	
	11	final drive	
	12	Reduction gear	
5th	13	Tractor brake system	
	14	Operator seat design	
	15	Power take off shaft and Ist test	

6th	16	Draw bar working
	17	double clutch system, belt pulley
	18	Three point linkages.
7th	19	Salient features of wheels.
	20	Tyres, wheel base, wheel track.
	21	Specifications of wheels and tyres.
8th	22	dual versus tandem tyres
	23	Tread design
	24	Effect of tyre inflation.
9th	25	Differential lock.
	26	functions of hydraulic system.
	27	Hydraulic system layout
10th	28	Various components of hydraulic system.
	29	Methods of attaching implements.
	30	Various control systems and 2nd test.
11th	31	Position control
	32	Draft control
	33	Working of hydraulic control levers.
12th	34	Uses of hydraulic control system.
	35	Description of working principle of bulldozer
	36	Five station vehicle
13th	37	front-end loader
	38	Cranes
	39	Faults in tractors

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Practical
N/A

14th

- 40 Rectification of faults
- 41 Maintenance of tractor
- 42 Prominent makes of Indian tractors

15th

- 43 Selection criteria of a tractor
- 44 Repair of tractors
- 45 Repair of earth moving machinery and 3rd Test

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