LESSON PLAN

NAME OF FACULTY: MANISH BANSAL

DISCIPLINE: AUTOMOBILE ENGINEERING

SEMESTER: 2nd

SUBJECT: ENGINEERING DRAWING – II

LESSON PLAN DURATION: 15 WEEKS

WORK LOAD (PRACTICAL) PER WEEK: PRACTICAL-6(3+3)

WEEK	PRACTICAL	
	PRACTICAL	**TOPIC**
1st	1	**Unit 1 Detail and Assembly Drawing** (2 sheets) Principle and utility of detail and assembly drawings Wooden joints i.e. corner mortice and tenon joint, Tee halving joint, Mitre faced corner joint.
	2	Tee bridle joint, Crossed wooden joint, Cogged joint, Dovetail joint, Through Mortise and Tenon joint, furniture drawing - freehand and with the help of drawing instruments
2nd	3	**Unit 2 Screw threads and threaded fasteners** (8 sheets) Thread Terms and Nomenclature Types of threads-External and Internal threads, Right and Left hand threads (Actual and Conventional representation), single and multiple start threads.
	4	Different Forms of screw threads-V threads (B.S.W threads, B.A thread, American National and Metric thread), Square threads (square, Acme, Buttress and Knuckle thread)
3rd	5	Drawing sheet of Nuts and Bolts Different views of hexagonal and square nuts and hexagonal headed bolt
	6	Assembly of Hexagonal headed bolt and Hexagonal nut with washer. Assembly of square headed bolt with hexagonal and with washer.
4th	7	Locking Devices Different types of locking devices-Lock nut, castle nut, split pin nut, locking plate, slotted nut and spring washer.
	8	Foundations bolts-Rag bolt, Lewis bolt, curved bolt and eye bolt.
5th	9	Drawing of various types of machine screw, set screw,
	10	Drawing sheet of studs and washer
6th	11	**Unit 3 Keys and Cotters** (3 sheets) Various types of keys and cotters and their practical application
	12	Preparation of drawing of various keys and cotters showing keys and cotters in position
7th	13	Various types of joints (3 sheets) Drawing sheet of Spigot and socket joint
	14	Drawing sheet of Gib and cotter joint
8th	15	Drawing sheet of Knuckle joint

	16	**Unit4 Rivets and Riveted Joints** (4 sheets) Types of general purpose-rivets heads Caulking and fullering of riveted joints
9th	**17**	Types of riveted joints
	18	Lap joint-Single riveted, double riveted (chain and zig-zag type)
10th	**19**	Drawing sheet of Single riveted, Single cover plate butt joint (chain type)
	20	Drawing sheet of Single riveted, double cover plate butt joint (chain type)
11th	**21**	Double riveted, double cover plate butt joint(chain and zig-zag type)
	22	**Unit 5 Couplings** (2 sheets) Flange coupling (Protected and non-protected),
12th	**23**	Drawing sheet of muff coupling
	24	Drawing sheet of half-lap muff coupling
13th	**25**	**Unit 6 Symbols and Conventions** (2 sheets) Civil engineering sanitary fitting symbols
	26	Electrical fitting symbols for domestic interior installations
14th	**27**	**Unit 7 AUTO CAD** (for practical and viva-voce only) Concept of AutoCAD, Tool bars in AutoCAD, coordinate system, snap, grid, and ortho mode
	28	Drawing commands – point, line, arc, circle, ellipse
15th	**29**	Editing commands – scale, erase, copy, stretch, lengthen and explode
	30	Viva voce and final evaluation

Lesson Plan

Name of Faculty : MANISH BANSAL
Discipline : Automobile Engineering
Semester : 2nd
Subject : ENVIRONMENTAL STUDIES
Lesson Plan Duration : 15 weeks

Week	Theory		Practical	
	Lecture Day	Topic (Including assignment /Test)	Practical Day	Topic
1st	1st	Unit 1:-Basics of ecology, eco system-concept		
	2nd	Structure and importance of ecosystem,Carbon, Nitrogen, Sulphur cycle		
	3rd	Sustainable development & revision		
2nd	4th	Unit 2:- Conservationoflandreforms,preservationofspecies,		
	5th	preventionofadvancementof desertsandloweringofwatertable rain water harvesting, ,		
	6th	Acid Rain . Maintenance of ground water		
3rd	7th	Deforestation – its effects and control measures. & Revision		
	8th	Unit 3:-Pollution: Sources of pollution - natural and manmade. Classification of pollutants		
	9th	Causes, effects and control measures of pollution (air, water, noise, soil, radioactive and nuclear).		
4th	10th	Prevention of Pollution		
	11th	Introduction to Cleaner Production Technologies		
	12th	Physical, chemical and biological treatment of pollutants		
5th	13th	photocatalytic degradation of pollutants		
	14th	Waste Minimization Techniques – Chemical degradation of waste		
	15th	Concept of Zero Discharge& revision.		
6th	16th	Unit 4:- Solidwastemanagement, classification of refusematerial		
	17th	Sources effects and control		

		measures		
	18th	Introduction to E-waste Management		
7th	19th	Revision of unit 4		
	20th	Unit 5 :-Environmental Legislation -		
	21st	Water (prevention and control of pollution) Act 1974		
8th	22nd	Air (Prevention and Control of Pollution) Act 1981		
	23rd	Environmental Protection Act 1986		
	24th	Role and Function of State Pollution Control Board		
9th	25 th	Some debate on pollution and control of pollution		
	26th	Environmental Impact Assessment (EIA)		
	27th	Introduction to Energy Conservation Act 2001		
10th	28th	Energy Conservation (Amendment) Act 2010 & its importance		
	29th	Revision of unit 5		
	30th	Unit 6 :-Energy Conservation: Introduction to Energy Management		
11th	31st	Energy Conservation, Energy efficiency & its need		
	32nd	Role of Non-conventional Energy Resources (Solar Energy)		
	33rd	Wind Energy, Bio Energy		
12th	34th	Hydro Energy) in environmental protection		
	35th	Impact of Energy Usage on Environment		
	36th	Global Warming		
13th	37th	Green House Effect		
	38th	Depletion of Ozone Layer & Revision		
	39th	Unit 7:- introduction of Eco-friendly Material		
14th	40th	Recycling of Material		
	41st	Concept of Green Buildings & revision		
	42nd	Revision of unit 1,2		
15th	43rd	Revision of unit 3		
	44th	Revision of unit 4,5		
	45th	Revision of unit 6,7		