

STAFF TEACHING PLAN (2019-20)

IVth Year B.E. (VIII Sem) Mechanical

Subject :ELECTIVE-III Advance Internal Combustion Engine (BEME803T5)

Subject Teacher: Dr. S.R. Ikhar

Sr No	Unit	Topic	Expected Date	Topic Description
1	I	101		Engine and their Classification
2	I	102		Engine components and material selection
3	I	103		Different operating cycles
4	I	104		Comparison of S.I. and C.I. Engine
5	I	105		Comparison of 2-S and 4-S engine
6	I	106		Engine lubrication
7	I	107		Engine cooling
8	I	108		Frictional losses, blow by losses, pumping losses
9	II	201		S.I. Engine fuel characteristics, rating of S.I. Engine fuel
10	II	202		Alternative fuel for S.I. engine
11	II	203		Carburetion
12	II	204		Numerical on Carburetion
13	II	205		C.I. engine characteristics, rating of C.I. fuel
14	II	206		Alternative fuel for C.I. engine
15	II	207		Fuel injection system
16	II	208		Problem of fuel injection system
17	III	301		Combustion in S.I. engine
18	III	302		Stages of combustion of S.I. engine
19	III	303		Flame propagations
20	III	304		Factor affecting combustion stages
21	III	305		Abnormal combustion
22	III	306		Types of combustion chamber
23	III	307		Ignition system
24	III	308		Supercharging, Scavenging
25	IV	401		Combustion in C.I. engine
26	IV	402		Stages of combustion
27	IV	403		Factor affecting combustion stages
28	IV	404		Abnormal combustion
29	IV	405		combustion chamber of C.I. engine
30	IV	406		Turbo charging
31	IV	407		Supercharging
32	IV	408		Comparison of abnormal combustion in S.I. & C.I. Engine
33	V	501		Atmospheric pollution from engines, global warming Greenhouse effect
34	V	502		Pollution from gasoline engine
35	V	503		Causes & control
36	V	504		Diesel emission and its control
37	V	505		Euro norms & Bharat stage norms,
38	V	506		Emission measurement equipments
39	V	507		Catalytic converter
40	V	508		Adiabatic engine, rotary engine , Stratified charge engine , free piston engine
41	VI	601		Engine testing and performance parameters,

				Important engine characteristics of engine- Brake, Torque & power
42	VI	602		Mechanical efficiency, mean effective pressure (Numerical)
43	VI	603		Specific fuel consumption and efficiency, volumetric efficiency and emission index (Numerical)
44	VI	604		Relationship between performance parameters, measurement
45	VI	605		Testing – Measurements of friction power, indicated power (Numerical)
46	VI	606		Brake power, fuel consumption (Numerical)
47	VI	607		Air consumption, engine efficiencies (Numerical)
48	VI	608		Variables affecting engine performance characteristics

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