



DEPARTMENT OF AUTOMOBILE ENGINEERING

VISION

"To develop technically skilled engineers with value-based education in the automotive industry to face upcoming chances".

MISSION

- *Understanding the need for regional automotive industries.*
- *Provide hands on skills for lifelong professional development.*
- *To create responsible students with a sense of ethics & discipline.*

Subject Name: Fundamentals of Automobile Engines (313312)

Date:- 29/07/2025

Assignment No: - 1

Course Outcome: 313.3

Topic Name: - Basics of Automobile Engines

Q.1 Define the terms :- Volume, Clearance Volume and Stroke.

Q.2 Classify I.C engine on the basis of operation and cylinder arrangement.

Q.3 Describe the working of 4 stroke petrol engine with P-V diagram.

Q.4 Describe the working of 4 stroke Diesel engine with P-V diagram.

Q.5 Differentiate between 2-Stroke and 4-Stroke engines,

Q.6 Differentiate between 4 stroke S.I Engine and C.I Engine.



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Subject Name: Fundamentals of Automobile Engines (313312)

Date:- 29/07/2025

Assignment No: - 2

Course Outcome: 313.3

Topic Name: - Constructional Features of Engine Component

Q.1 Draw neat sketch of components of I.C Engine.

Q.2 Differentiate between dry liner and wet liner.

Q.3 State the function and materials of engine component – Piston, Connecting Rod with neat diagram.

Q.4 State the functions of Flywheel and Camshaft in engine.

Q.5 Differentiate between Camshaft and Crankshaft.

Q.6 Explain the working of overhead valve mechanism with neat sketch.

Q.7 Write short note on intake manifold.

Assign By :- Mr. Pravin Biramane



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Subject Name: Fundamentals of Automobile Engines (313312)

Date:- 29/07/2025

Assignment No: - 3

Course Outcome: 313.3

Topic Name: - Fuel and Air feed system

- Q.1 Explain gravity feed system with neat sketch?
 - Q.2 List different components of fuel supply system? Explain relevance of fuel filter with neat sketch.
 - Q.3 Write short note on solex carburetor.
 - Q.4 Write short note on air-fuel mixture requirement.
 - Q.5 Enlist various circuit in carburettor. Explain choke circuit with neat sketch.
 - Q.6 List different fuel injection systems used in C.I. engines? Explain any one in detail with neat sketch.
 - Q.7 List different types of nozzles used in fuel injection system? Explain with neat sketch.
 - Q.8 Write short note on fuel metering in FIP.
 - Q.9 Write short note on mechanical governor.
 - Q.10 Give principles of operation of carburettor? Explain with neat sketch.
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Assign By :- Mr. Pravin Biramane



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Subject Name: Fundamentals of Automobile Engines (313312)

Date:- 29/07/2025

Assignment No: - 4

Course Outcome: 313.4

Topic Name: - Ignition and Exhaust system

- Q.1 Explain magneto ignition system with sketch.
- Q.2 Write short note on battery ignition system.
- Q.3 Enlist four disadvantages of conventional ignition system.
- Q.4 List the types of exhaust systems used in automobiles? Explain any two in detail.
- Q.5 Write short note on catalytic converter.
- Q.6 List the different types of mufflers used in exhaust systems? Explain any three with neat sketch.



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Subject Name: Fundamentals of Automobile Engines (313312)

Date:- 29/07/2025

Assignment No: - 5

Course Outcome: 313.5

Topic Name: - Engine cooling and lubrication system

- Q.1 Enlist various methods of I.C. engine lubrication. Explain any two with neat sketch..
- Q.2 Give classification of lubrication oil based on viscosity.
- Q.3 Write short note on positive crankcase ventilation.
- Q.4 Give essential components of lubricating system. Explain any two with neat sketch.
- Q.5 Explain in brief the methods of cooling of I.C. engine.
- Q.6 Differentiate between air cooling system and water cooling system.
- Q.7 Explain the purpose of fins in an air-cooled system.

Assign By :- Mr. Pravin Biramane