



ABES ENGINEERING COLLEGE, GHAZIABAD

Department of Mechanical Engineering

Fundamentals of Mechanical Engineering (BME 101)

ASSIGNMENT 2 / QUESTION BANK		Unit II
Topic	IC Engine Electric Vehicles and Hybrid Vehicles	
Course	B. Tech	
Semester	I	

Q. NO.	Short Types Question
1.	Define Heat Engine and IC engine?
2.	Write the any six components of IC Engine.
3.	Define scavenging process in IC Engine.
4.	What are Internal Combustion engines?
5.	Differentiate between SI and CI engine?
6.	Define the Followings terms: (i) Top Dead Centre (TDC) (ii) Bottom Dead Centre (BDC) (iii) Bore (iv) Stroke (v) Compression Ratio (vi) Clearance volume
7.	What is the difference between electric and hybrid vehicle?
8.	Name the different types of batteries being employed with electric vehicles.
9.	Name the different types of motors being employed with electric vehicles.
10.	Enlist various types of electric and hybrid vehicles.
Q. NO.	Long Types Question
11.	Discuss 10 differences between 2 Stroke Engine and 4 Stroke Engine.
12.	Discuss 10 differences between SI and CI Engine.
13.	Explain with suitable sketches the working of a four-stroke SI Engine.
14.	Explain with suitable sketches the working of a four-stroke CI Engine.
15.	Explain with suitable sketches the working of a two-stroke SI Engine.
16.	Compare the relative advantages and disadvantages of Electric and Hybrid Electric vehicle.
17.	Mention the different components of an electric vehicle and state the function of those components.
18.	Explain with suitable sketches the working principle of Hybrid electric vehicles.
19.	Describe briefly the drive train components of Hybrid electric vehicles.
20.	Discuss the different types of batteries used in electric vehicles.