

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV (NEW) - EXAMINATION – SUMMER 2017****Subject Code: 2140203****Date: 12/06/2017****Subject Name: Automobile Engines****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1	Short Questions	14
	1 Define TDC.	
	2 Define BDC.	
	3 Define IHP.	
	4 Define BHP.	
	5 Define FHP.	
	6 Define Detonation.	
	7 What do you mean by Supercharging?	
	8 Write the full form of LPG.	
	9 Write the full form of CNG.	
	10 Write the function of cooling system.	
	11 Write the function of lubrication system.	
	12 Define stroke.	
	13 Define Bore.	
	14 Define clearance volume.	
Q.2	(a) Write a short note on working principle of carburetor.	03
	(b) Explain properties of coolant.	04
	(c) Enlist different types of cooling system and explain any one.	07
	OR	
	(c) Explain the working of single jet carburetor with neat sketch.	07
Q.3	(a) Explain factors responsible for knocking.	03
	(b) Explain properties of lubricant.	04
	(c) Enlist different types of lubrication system and explain any one.	07
	OR	
Q.3	(a) Explain valve timing diagram of 4 stroke petrol engine.	03
	(b) Write advantages and limitation of supercharging.	04
	(c) Explain LPG system.	07
Q.4	(a) Write a short note on Air injection system and solid injection system.	03
	(b) Explain prony brake dynamometer.	04
	(c) Explain mechanical and pneumatic governor.	07
	OR	
Q.4	(a) Write a short note on different types of nozzle.	03
	(b) Compare 2-stroke and 4-stroke.	04
	(c) Draw 4-stroke single cylinder petrol engine and explain its components.	07
Q.5	(a) Give classification of engine.	03
	(b) Compare Diesel engine and Petrol engine.	04

- (c) Explain working of 4 stroke diesel engine with neat sketch. **07**

OR

- Q.5** (a) Write a short note on scavenging pump. **03**
(b) Explain Morse test. **04**
(c) Explain working of 2 stroke petrol engine with neat sketch. **07**
