

# CBCS Scheme

15ME655

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## Sixth Semester B.E. Degree Examination, Automobile Engineering - Model QP

Time: 3 hrs

Max marks: 80

**Note: Answer any FIVE full questions, choosing one full question from each module**

<b>Module-1</b>		
<b>1</b>	a.	Explain wet and dry liners with the help of diagrams.(08 Marks)
	b.	Explain the various methods of cylinder arrangements in multi-cylinder engine.(08 Marks)
<b>OR</b>		
<b>2</b>	a.	Explain the working principle of hybrid vehicle with the block diagram. (08 Marks)
	b.	With a neat sketch, explain pump circulation system of water cooling.(08 Marks)
<b>Module-2</b>		
<b>3</b>	a.	With a neat sketch, explain the construction and working of single plate clutch.(08 Marks)
	b.	Explain the construction and working principle of torque converter.(08 Marks)
<b>OR</b>		
<b>4</b>	a.	Explain master cylinder of hydraulic parking system with a neat sketch.(10 Marks)
	b.	Differentiate between disc brakes and drum brakes.(06 Marks)
<b>Module-3</b>		
<b>5</b>	a	Explain the effect of following on steering (i) Camber (ii) Castor (iii) King pin inclination (iv) toe-in (v) toe-out.(10 Marks)
	b	With a neat sketch, explain the working of torsion bar.(06 Marks)
<b>OR</b>		
<b>6</b>	a	What are the requirements of a suspension system? Explain the air-suspension system with a neat sketch.(08Marks)
	b	List out the different types of ignition system. Explain the construction and working principle of electronic ignition system.(08Marks)
<b>Module-4</b>		
<b>7</b>	a	Define supercharging. Also explain the centrifugal type supercharger.(08 marks)
	b	Explain with a neat sketch normal and abnormal combustion in SI engine. (08 marks)
<b>OR</b>		
<b>8</b>	a	Explain the construction and working principle of zenith carburettor with neat sketch. (08Marks)
	b	With neat sketch, explain the working of electronic fuel injection system.(08Marks)
<b>Module-5</b>		
<b>9</b>	a	What is catalytic converter? How they are helpful in reducing exhaust gas emission? Explain with neat sketch the 3-way catalytic converter system.(08 Marks)
	b	Explain the controlling of crank case emission with sketch. (08Marks)
<b>OR</b>		
<b>10</b>	a	What are the methods used to reduce amount of pollutants in the exhaust gas? Explain the Exhaust Gas Recirculation (EGR) with a neat diagram.(10Marks)
	b	Write a note on emission standards.(06 marks)

