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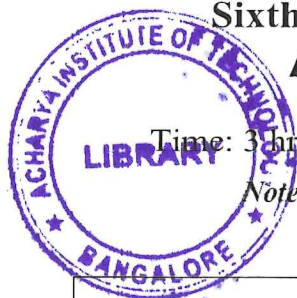
BMT613C

Sixth Semester B.E./B.Tech. Degree Examination, June/July 2026
Automotive Electronics and Hybrid Vehicles

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.



Module – 1			M	L	C
Q.1	a.	Describe engine control system with suitable diagram.	10	L2	CO1
	b.	Describe working of four strokes IC engine with suitable diagram.	10	L2	CO1
OR					
Q.2	a.	Explain drive train in brief.	10	L1	CO1
	b.	Explain air fuel management in brief.	10	L1	CO1
Module – 2					
Q.3	a.	Discuss the working principle of oxygen sensor with suitable diagram.	10	L3	CO2
	b.	Describe the working of optical crank shaft position sensor.	10	L2	CO3
OR					
Q.4	a.	Explain fuel injection system with suitable diagram.	10	L1	CO2
	b.	Explain Exhaust Gas Recirculation (EGR) with suitable diagram.	10	L2	CO2
Module – 3					
Q.5	a.	Describe the fuel quantity measurement system with suitable block diagram.	10	L2	CO3
	b.	Describe the oil pressure measurement instrumentation.	10	L2	CO3
OR					
Q.6	a.	Explain communication system with suitable block diagram.	10	L2	CO3
	b.	Write a note on : i) Remote Keyless Entry ii) GPS.	10	L1	CO3
Module – 4					
Q.7	a.	Explain : (i) Antilock brake system (ii) Power steering.	10	L1	CO4
	b.	Describe onboard diagnostics with suitable diagram.	10	L2	CO4
OR					
Q.8	a.	Describe Collision Avoidance Radar Warning System.	10	L2	CO4
	b.	Describe Advanced Driver Information System.	10	L2	CO4
Module – 5					
Q.9	a.	Explain electric vehicle with suitable block diagram.	10	L1	CO4
	b.	Explain electric hybrid vehicle components.	10	L1	CO4
OR					
Q.10	a.	Describe hybrid electric vehicle architecture.	10	L2	CO4
	b.	Describe power train components.	10	L2	CO4