CBCS SCHEME

USN | | | | | | | | | |

BAU301

Third Semester B.E./B.Tech Degree Examination, Dec.2023/Jan.2024
Automotive Engines

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.

			M	L	C
Module – 1					
Q.1	a.	Demonstrate the construction and working of 4 stroke SI engine.	10	L3	CO1
	b.	Define heat engine with example. Write a list of IC engines (classification).	10	L1	CO1
OR					
Q.2	a.	Compare the SI engine with CI engine.	10	L4	CO1
	b.	Show the working of diesel cycle with suitable diagram and equations.	10	L3	CO1
Module – 2					
Q.3	a.	Illustrate the air-fuel mixture requirements for steady state operation in SI engine.	10	L4	CO2
	b.	Demonstrate the petrol injection system.	10	L3	CO2
OR					
Q.4	a.	Demonstrate the inline fuel injection system.	10	L3	CO2
	b.	Explain the mechanical type of governor system.	10	L2	CO2
Module – 3					
Q.5	a.	Write the summary of stages of combustion in SI engine.	10	L2	CO3
	b.	Explain the effects of variables on flame propagation.	10	L2	CO3
OR					
Q.6	a.	Describe the variables which affect the delay period in CI engine.	10	L1	CO3
	b.	Discuss the induction swirl with advantages and disadvantages.	10	L2	CO3
Module – 4					
Q.7	a.	Discuss the centrifugal type supercharger. State the effects of supercharger on engine.	10	L2	CO3
	b.	Demonstrate the turbocharger control system with waste gate.	10	L3	CO3
OR					
Q.8	a.	Demonstrate the thermosyphon type of cooling system.	10	L3	CO3
	b.	Compare the liquid and air cooling system.	10	L4	CO3
Module – 5					
Q.9	a.	Describe the structure of petroleum products.	10	L1	CO4
	b.	Conclude the octane and cetane number of fuels.	10	L4	CO4
OR					
Q.10	a.	Explain the necessity of lubrication and working of splash lubrication system.	10	L2	CO4
	b.	Describe the properties of lubricants.	10	L1	CO4

* * * * *