

USN

--	--	--	--	--	--	--	--	--	--

15AU833

Eighth Semester B.E. Degree Examination, July/August 2022
Advanced IC Engines

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the stage of combustion in SI Engine with sketch. (08 Marks)
b. Explain the effect of engine variable on flame propagation in SI Engine. (08 Marks)

OR

- 2 a. Sketch and explain conventional ignition system for 4 cylinder SI Engine. (08 Marks)
b. Describe the phenomenon of abnormal combustions. (08 Marks)

Module-2

- 3 a. Explain with suitable sketch the working of direct injection system. (08 Marks)
b. Mention the different parameter which affects the ignition delay. (08 Marks)

OR

- 4 a. Mention the different types of diesel combustion system. Explain any one. (08 Marks)
b. With neat sketch explain the fuel spray behavior in CI Engine. (08 Marks)

Module-3

- 5 a. Sketch and explain chart for burnt mixture. (08 Marks)
b. Explain with suitable sketch the working of brayton cycle. (08 Marks)

OR

- 6 a. Explain with sketch the chart for unbrunt mixture. (08 Marks)
b. What are the modification required for the simple cycle, intercooling reheat and regeneration? (08 Marks)

Module-4

- 7 a. Sketch and explain the super charging. (08 Marks)
b. Explain with sketch the working of EGR. (08 Marks)

OR

- 8 a. Explain with suitable sketch working of the turbocharger. (08 Marks)
b. Sketch and explain the MPFI Engine. (08 Marks)

Module-5

- 9 a. Explain with suitable sketch the working of stratified charge engine. (08 Marks)
b. Discuss the effect of air cleaner and silencer on engine performance. (08 Marks)

OR

- 10 a. Explain with suitable sketch the working of Wankel Engine. (08 Marks)
b. Explain the working of variable compression engine. (08 Marks)

* * * * *