

Subject code: 161803

Date: 25/11/2011

Subject Name: Marine Internal Combustion Engines-I

Time: 10.30 am -1.00 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 (a) What are the Advantages and disadvantages of a two stroke cycle Engine over a four stroke cycle Engine. **07**

(b) Briefly Describe the operations of a four stroke petrol engine. **07**

Q.2 (a) What is valve lead, valve lag, and valve overlap period. Explain **07**

(b) Explain four stroke diesel Engine valve timing diagram with sketch. **07**

OR

(b) Explain with sketch M.A.N. Marine Diesel Engine. **07**

Q.3 (a) Explain the Working of four stroke cycle piston with neat sketch. also explain various types of piston ring. **07**

(b) What are the functions of cylinder liners. Explain various jackets used in marine diesel engine. **07**

OR

Q.3 (a) Explain construction details of cylinder heads used in marine diesel engine. **07**

(b) Why supercharging is necessary in diesel engine. Explain with detail. **07**

Q.4 (a) Why cooling is necessary of I.C. Engine and Explain **07**

(b) Explain water cooling system used in diesel engine also explain various parts used in this system. **07**

OR

Q.4 (a) Explain Turbo charger scavenging system used in marine diesel engine. **07**

(b) Explain uniflow loop, cross loop and reverse loop scavenging. **07**

Q.5 (a) What are the different types of diesel combustion systems? explain any one. **07**

(b) What are the four stages of combustion in C.I. engine? explain **07**

OR

Q.5 (a) What are the effects on engine compression pressure during ignition delay, lack of compression pressure, air fuel ratio. **07**

(b) Explain maintenance of cooling system in marine diesel engine. **07**
