

## SECTION-C

**Note:** Long answer type questions. Attempt any three questions. HSBTEonline.com 3x10=30

- Q.3 Explain working of 2 stroke petrol engine.
- Q.4 Explain various types of lubricants used.
- Q.5 Compare two stroke engine with four stroke engine.
- Q.6 Discuss in detail water cooling system for automotive engines.
- Q.7 What are oil additives? Explain commonly used additives?

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No. of Printed Pages : 4  
Roll No. ....

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**4th Sem. / Mechanical / CNC**

**Subject : I.C. Engines**

Time : 3 Hrs. HSBTEonline.com M.M. : 100

## SECTION-A

**Note:** Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) What is MPFI?  
b) What is function of Cylinder head?  
c) What is stroke? HSBTEonline.com  
d) Explain 2 stroke engine.  
e) What is the function of gasket?  
f) Define air fuel ratio.  
g) What is Viscosity?  
h) Define flash point.  
i) Explain crank throw.  
j) Define mechanical efficiency.

- k) What is IP? HSBTEonline.com
- l) What is brake Power?
- m) What is relative efficiency?
- n) Explain the function of spark Plug.
- o) List any two properties of lubricant.
- p) List quantities to be measured in engine testing.
- q) What is a pour point of fuel?
- r) List various types of fuels used in IC engine.

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### SECTION-B

**Note:** Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Define IP and BP. State their units.
  - ii) What is an Otto Cycle?
  - iii) What is the difference between CI and SI Engines. HSBTEonline.com
  - iv) List main parts of IC Engine.

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- v) State functions of oil sump.
- vi) Name the parts that are attached to engine block. HSBTEonline.com
- vii) Explain the function of Cylinder head.
- viii) Name main parts of crank shaft. Explain super charging.
- ix) Explain various methods of engine cooling.
- x) Name various components of water cooling System.
- xi) List various types of lubricants.
- xii) What is boundary lubrication?
- xiii) What is synthetic lubricant? Give example. HSBTEonline.com
- xiv) What is the material used for following engine parts.
  - a) Cylinder block
  - b) Cylinder head
- xv) Explain the objectives of lubrication.

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