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Roll No. ....

DVOC (Level 5 )

Sem 1st / Production Tech.

Subject : General Mechanical Engineering - II

Time : 2 Hrs.

M.M. : 50

### **SECTION-A**

**Note:** Very short answer type questions . Attempt all ten question  $(10 \times 1 = 10)$

- Q.1 Which of the following is a branch of thermodynamics?
- a) Equilibrium thermodynamics
  - b) Classical thermodynamics
  - c) Chemical thermodynamics
  - d) All of the mentioned
- Q.2 By first law of thermodynamics
- a)  $Q=\Delta E-W$
  - b)  $Q=\Delta E+W$
  - c)  $Q=-\Delta E-W$
  - d)  $Q=-\Delta E+W$
- Q.3 If petrol is used in a diesel engine, then \_\_\_\_\_.
- a) Low power will be produced
  - b) efficiency will be low
  - c) higher knocking will occur
  - d) Black smoke will be produced.

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- Q.4 Steam condensers are classified as \_\_\_\_\_.  
a) jet condensers and surface condensers  
b) jet condensers and fast condensers  
c) high condensers and surface condensers  
d) Slow condensers and jet condensers
- Q.5 Why casing is used in turbine?  
a) Forms the outside wall of the main flow duct to remain concentric  
b) Forms the inside wall of the main flow duct to remain concentric  
c) Forms the outside wall of the main flow duct to not remain concentric.  
d) None of the mentioned.
- Q.6 Thermodynamic process
- Q.7 Isothermal
- Q.8 External combustion
- Q.9 Condenser
- Q.10 Turbine
- Q.14 How heat capacity and temperature are related to each other?
- Q.15 What is Horse power? How is it calculated.
- Q.16 What are the various factors affecting knock in spark ignition engine?
- Q.17 What are boiler mountings? Why are they provided?
- Q.18 What are the advantages and limitations of regenerative air preheated over the recuperative type?

### SECTION-C

**Note:** Long answer type questions. Attempt any one question out of two questions. (10x1=10)

- Q.19 Explain the construction and working of coxon boiler.
- Q.20 Give the classification of steam turbine. Explain the principle construction and working of an impulse turbine with neat sketch.

### SECTION-B

**Note:** Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)

- Q.11 What is Thermodynamic process ? Write in brief about it.
- Q.12 Explain second Law of Thermodynamics.
- Q.13 Write short note on carnot cycle.