Roll No. [ ] Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(IE/ME) (Sem.–3) (Batch All)

ENGINEERING MATERIALS AND METALLURGY

Subject Code : ME-205

Paper ID : [A0860]

Time : 3 Hrs. Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. **Write briefly :**

(a) Define packing fraction.

(b) What do you understand by slip?

(c) Define allotropy.

(d) Define toughness of a material.

(e) What is Gibb's phase rule?

(f) What are critical temperature lines in Iron-Carbon diagram?

(g) Why hardening is always followed by tempering treatment?

(h) Why alloying elements are added in steels?

(i) What is pack carburizing?

(j) What is tool steel?