

B. Tech. 3rd Semester (ME) F-Scheme Examination,

December-2014

MATERIAL SCIENCE

Paper-ME-207-F

Time allowed : 3 hours] [Maximum marks : 100

Note : Attempt any five questions.

1. (a) Explain the point defects and line defects in brief. 10
- (b) Describe the edge and screw dislocations in detail. 10
2. What do you understand by phase diagram? Explain with neat sketches the Iron-carbon equilibrium diagram. 20
3. Explain the principles, classification, purpose of heat treatment processes in brief with neat sketches. 20
4. (a) Describe the mechanism of plastic deformation. 10
- (b) What is meant by fatigue, also write its characteristics ? 10
5. (a) Define the creep and define the mechanism of creep with neat sketch. 10
- (b) Explain properties of ceramic and mechanical behaviour of ceramic. 10

6. Explain the following :

- | | | |
|----------------------|------------------|----|
| (i) stress relieving | (ii) hardening | |
| (iii) tempering | (iv) carburizing | |
| (v) nitriding. | | 20 |

7. (a) Describe the surface defects in detail. 10
- (b) Explain the formation of polymers. 10

8. Write short notes on the properties of following :

- | | |
|-----------------|----|
| (a) Austenite | |
| (b) Ferrite | |
| (c) Pearlite | |
| (d) Martensite. | 20 |

<http://www.HaryanaPapers.com>

Whatsapp @ 9300930012

Your old paper & get 10/-

पुराने पेपर्स भेजे और 10 रुपये पायें,

Paytm or Google Pay से