

Total No. of Questions – [8]

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G.R. No.

V218-156 (ESE)

DECEMBER 2018/ENDSEM

S. Y. B. TECH. (PROGRAM) (SEMESTER - I)

COURSE NAME: MATERIAL SCIENCE AND ENGINEERING

METALLURGY

MARKING SCHEME

Q.1) a) 2 marks for each With Suitable example for each [6 marks]

OR

b) Examine 3 marks Show it for BCC structure 3 marks? [6 marks]

Q.2) a) 2 marks for slip 4 marks for Compare the slip & twinning. [6 marks]

OR

b) Discuss factor affecting Fatigue strength 3 marks and Fatigue fracture 3 marks? [6 marks]

Q.3) a) Drawing the equilibrium diagram for Fe-Fe₃C and 3 Explanation [6 marks]

OR

b) Explanation Flow line detection in detail 6 marks. [6 marks]

Q.4) a) Discussion 4 marks [4 marks]

OR

b) Drawing 2 marks each for the microstructure [4 marks]

Q.5) a) Definition 2 marks each. [6 marks]

b) Definition c [4 marks]

c) Each changes 2 marks [4 marks]

OR

Q.6) a) Definition 2 marks each [6 marks]

b) Explain min 4 characteristics neat diagram with its. [4 marks]

c) Drawing the self-explanatory TTT diagram for AISI 1065 4 marks. [4 marks]

Q.7) a) Definition 2 marks each

[6 marks]

b) Drawing of annealing band on steel 2 and explanation 2marks.

[4 marks]

c) 4 advantages of cu base alloys?

[4 marks]

OR

Q.8) a) Explain 2 marks? Which gives fast cooling 2 marks? Why 2 marks ?

[6 marks]

b) Justification 4 marks.

[4 marks]

c) 4 advantages of nonferrous cu alloys over cast ir

[4 marks]