

SUBJECT CODE:- 8188
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E.(Mechanical) Examination Nov/Dec 2015
Modern Engg. Materials
(Revised)

[Time: Three Hours]

[Max. Marks: 80]

“Please check whether you have got the right question paper.”

- N.B
- i) Solve any three questions from each section
 - ii) Assume suitable data wherever required
 - iii) Figures to right indicates full marks
 - iv) Draw a neat sketch wherever required

Section A

- Q.1 Creep strength is an important property of materials justify the statement also explain with a neat sketch how the creep strength is checked 13
- Q.2 Al - Alloy plays an important role in many of engineering application. Explain why? Also explain Al-mg – si alloy 13
- Q.3 What is role of matrix in composite material? Give example and also explain what are whiskers 13
- Q.4 Write short note on any two 14
- i. Ball bearing steel
 - ii. Heat treatment for hardening of steel
 - iii. Polymer matrix composite

Section – B

- Q.5 How polymer matrix composite is manufactured? Explain also state the note of matrix in composite 13
- Q.6 State the significance of critical volume fraction, rule of mixture equation and critical angle in component material 13
- Q.7 What are elastomers? Explain. state its application and properties 13
- Q.8 Write short note on any two 14
- i. Refractory material
 - ii. Fly ash composite
 - iii. Reinforcement in composite