

Reg. No. :

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Question Paper Code: 45702

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Fifth Semester

Mechanical Engineering

14UME502 - ENGINEERING MATERIALS AND METALLURGY

(Regulation 2014)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

- Increase of ferrite phase in steel increases
 - Strength
 - Hardness
 - Ductility
 - Brittleness
- Eutectic reaction for iron carbon system occurs at
 - 600⁰ C
 - 723⁰ C
 - 1147⁰ C
 - 1493⁰ C
- Hardness of steel is greatly improved with
 - Annealing
 - Cyaniding
 - Normalising
 - Tempering
- Which one of the following mediums is used for fastest cooling rate of steel quenching
 - Air
 - Oil
 - Water
 - Brin
- The ability of a material to absorb energy in the plastic range is called
 - resilience
 - creep
 - fatigue strength
 - toughness
- Poisson's ratio is
 - linear stress/lateral stress
 - Linear strain/lateral strain
 - lateral stress/lateral stress
 - lateral strain/linear strain

