Marking Scheme of BME T2 Paper Code - U127-103 (T2)

Q1 a) Definition of any 6 Mechanical Properties of Engineering material..... 6 marks
b) Classification of engineering material.....2 marks
Explanation of any two ferrous metals and alloy with application.....4 marks
c) Ergonomics consideration .....(6 point).....4 marks

OR

Q2 a) stress strain diagram for mild steel with salient features.....3 marks
Explanation of each salient features of the diagram.....3 marks
b) Definition of ergonomics.....2 marks
definition of aesthetics.....2 marks
explanation of aesthetic consideration.....2 marks
c) Explanation of two nonferrous metals and alloy with application..... 4 marks

Q3 a) classification of coupling.....2 marks
Explanation of bush pin type flexible coupling with neat sketch.....4 marks
b) comparison of flat belt and v belt.....4 point.....2 marks
Explanation of open and cross belt drive with diagram.....2 marks
c) N1/ N4 = (Z2*Z4/ Z1*Z3) = 63/20.....1 marks
N1/N4= 1500/ 3.15 = 476.19 rpm .....2 marks
Gear 4 rotates in clockwise direction.....1 mark

OR

Q4 a) Classification of gears.....2 marks
Explanation of gear terminology with diagram....minimum 4 points.....4 marks
b) Define key.....1 mark
Explanation of different types of key with sketch .....(Minimum 3 types)...3 marks
c) N1/N5= (Z2*Z4*Z5) / (Z1* Z3*Z4) = 2.....2 marks
N5 = (3000/2) = 1500 rpm.....2 marks