

SANT GADGE BABA AMRAVATI UNIVERSITY
BACHELOR OF ENGINEERING SEMESTER VII (CGS) EXAMINATION S-2020

H.V.P.Mandal's College of Engineering and Technology, Amravati
Department Of Mechanical Engineering

Academic Session: 2019-2020

Semester : VII

Unit : I,II,III,IV,V,VI

Date: 29/10/2020

Subject Name: Machines Design and Drawing-II

Subject Code : 7ME01

Max Marks 20

Note: Solve any 2 questions out of 4 questions.

All Questions Carry Equal Marks.

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- Q.1st** a) Discuss the bending stresses induced in the pin of bolt used in flexible bush pin type coupling. **2 Marks**
b) List different types of Governness. **2 Marks**
c) Discuss the various types of stresses induced in a flywheel rim. **3 Marks**
d) What are the important properties of sliding contact bearing materials from design point of view ? Explain **3 Marks**
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- Q. 2nd** a) What is the Effect of viscosity, temperature, diameter, bearing pressure on the performance of the Journal bearing. **2 Marks**
b) Discuss the various stresses developed in connecting rod. **2 Marks**
c) Compare flat belt & V - Belt **3 Marks**
d) Explain the following terms used in bevel gears : (i) Cone distance (ii) Addendum angle (iii) Face angle (iv) Dendum angle. **3 Marks**
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- Q.3rd** a) What is the effect of groove angle an performance of v-belt **2 Marks**
b) State the function of following in IC Engine **2 Marks**
i) Piston rings ii) iii) Piston pin il) Ribs Piston skirt
c) How are the bevel gears classified? Explain wit neat sketch. **3 Marks**
d) What are the advantages of wire ropes ? **3 Marks**
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- Q 4th** a) What is equivalent number of teeth in helical gear? **2 Marks**
b) What is significance of pitch line velocity? **2 Marks**
c) Discuss tie design of Piston for IC engine. **3 Marks**
d) Explain working of Hartnell Governor. **3 Marks**