S.B. Roll No..

THEORY OF MACHINES
5th Exam/Mech./5317/Feb'2021
(For 2018 Batch onwards)

Duration: 1.15Hrs.   **M.Marks:25**

SECTION-A

Q1. Attempt any three questions.   **3x5=15**
   i.   What do you mean by inversion of mechanism?
   ii. What are the difference between lower pair and higher pairs?
   iii. Explain with the help of sketches: a) Ball bearing   b) Thrust bearing.
   iv. What do you mean by slip of belt and creep of belt?
   v.   Explain the advantages and disadvantages of V-belt drive over flat belt drive.
   vi. What are the difference between Flywheel and Governor?
   vii. What is balancing and how it is achieved in rotating shafts?

SECTION-B

Q2. Attempt any one question.   **1x10=10**
   a. Draw a neat diagram of Oldham's coupling and explain its working.
   b. The distance between the centre lines of two pulleys is 15m and the diameter of driving pulley and driven pulley are 500cm and 300cm respectively. Calculate the required length of belt for cross belting.
   c. Draw and explain turning moment diagram for a four-stroke cycle Internal Combustion engine.
   d. Explain the method of several masses rotating in the same plane.