

S.B. Roll No.....

THEORY OF MACHINES
5th Exam/MECH/5317/Jan'2022
(FOR 2018 BATCH ONWADS)

Duration: 1.15Hrs.

M.Marks:25

SECTION-A

Q1. Attempt any three questions.

3x5=15

- i. Name any four inversion applications of a slider crank chain.
- ii. What are the difference between a Machine and a Mechanism?
- iii. Explain with the help of sketch of Ball bearing.
- iv. What is centrifugal tension in belts and where does it count?
- v. Explain the disadvantages of V-belt drive over flat belt drive.
- vi. What are the difference between Flywheel and Governor?
- vii. Define the following.
 - a) Co-efficient of fluctuation of energy
 - b) Co-efficient of Fluctuation of Speed.

SECTION-B

Q2. Attempt any one question.

1x10=10

- a. Draw a neat diagram of Whitworth Quick Return Motion Mechanism 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 1000cm and 600cm respectively. Calculate the required length of belt for cross belting.
- c. Draw and explain turning moment diagram for a single cylinder double acting steam engine.
- d. What is balancing? Explain briefly how balancing of rotating masses is done.