



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg.) 2016 Admission
III Semester Final Examination-January-2018
Kinematics of Machinery (2+1)

Meen.2105

Marks: 50
Time: 2 hours

I Fill in the blanks:

(10x1=10)

- 1 The centrifugal tension in the belt is -----
- 2 -----is the positive drive.
- 3 The diameter of the hub of the flywheel is usually-----
- 4 A jaw clutch is essentially a -----
- 5 In thrust bearing the load acts-----

State True or False

- 6 In a full journal bearing, the angle of contact of the bearing with the journal is 360° .
- 7 A brake commonly used in railway trains is shoe brake.
- 8 Zero film bearing operate without lubricant.
- 9 The friction force acts tangent to the surfaces of contact.
- 10 Tapered roller bearing takes axial load only

II Write Short notes on ANY FIVE of the following

(5x2=10)

- 1 Define foot step bearing?
- 2 Draw the diagram of quarter turn belt drive?
- 3 Define co-efficient of friction?
- 4 State about rack and pinion?
- 5 Define thin film bearings?
- 6 What is meant by links?
- 7 Write the disadvantageous of chain drive?

III Answer ANY FIVE of the following

(5x4=20)

- 1 Define angle of friction?
- 2 Write the types of brakes and its uses?
- 3 Define speed and energy?
- 4 Write the advantages of V-belt drive?
- 5 What are the materials is used for manufacturing of belts?
- 6 Write the difference between gear drive and chain drive?
- 7 Write the radial bearing with neat sketch

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 Explain the various terms used to denote the gears?
- 2 Describe about the various types of flat belt drive?
