

THE LNM INSTITUTE OF INFORMATION TECHNOLOGY (LNMIIT)
Department of Mechanical-Mechatronics Engineering

Kinematics and dynamics Lab
End Term Practical Examination

Time: 60 min

Date: 25 /04 /2018 Max. Marks: 40

Instructions: No doubt clarifications in the examination hall. If assumptions are to be made, make your own assumptions, state it and use it. If assumptions are relevant and it makes sense it will be considered.

- ✓ 1) Define the slip & slip percentage formula.
- ✓ 2) Write the formula power transmitted by the belt.
- ✓ 3) Define creep & write the formula of theoretical creep.
- ✓ 4) What is angle of contact in the experiment of belt and pulley?
- ✓ 5) Write the various types of cam & follower.
- ✓ 6) Write the formula of ^{Torque} time period (actual & theoretical) of gyroscope.
- ✓ 7) Write two applications of gyroscope.
- ✓ 8) Write the formula of moment of inertia of flywheel.
- ✓ 9) Write the conditions for static & dynamic balancing.
- ✓ 10) Write the formula of time period (theoretical) for simple pendulum.
- ✓ 11) Write the formula of time period (actual & theoretical) for compound pendulum.
- ✓ 12) Write the formula of radius of gyration (actual & theoretical) for the Bi- filler suspension.
- ✓ 13) Write the formula of time period (theoretical) for single rotor system.
- ✓ 14) Write the formula of time period (theoretical) for two rotor system.
- ✓ 15) Write the formula of logarithmic decrement in damped torsional oscillation system.
- ✓ 16) Write the formula of damping coefficient in damped torsional system.
- ✓ 17) Write the formula of time period for helical spring oscillation.
- ✓ 18) Write the formula of coefficient of friction between belt and pulley.
- ✓ 19) What is meant by jump phenomenon in cam and follower system?
- ✓ 20) What is the difference between axis of spin and axis of precession in gyroscope?