



Symbol of Secularism
& National Integration

ANJUMAN-I-ISLAM'S
KALSEKAR TECHNICAL CAMPUS, NEW PANVEL
School of Engineering & Technology

DEPARTMENT OF MECHANICAL ENGINEERING

CLASS:- TEME1 and TEME2

SEM:- V

SUBJECT:- TOM -2

/ 09 / 2016

DURATION:- 60 min.

MARKS:- 20

CLASS TEST 01

Q.01 Attempt any two: (08 Marks)

a)	Explain Self locking and self energizing effect in Block brake?	4
b)	What do you understand by dry clutch and wet clutch?	4
c)	How does a clutch differ from that of a Brake?	4

Q.02 Attempt any two: (12 Marks)

a)	A bicycle and a rider of mass 100kg are travelling at the rate of 16km/hr on a level road . A brake is applied to the rear wheel which is 0.9 m in diameter and this is the only resistance acting. How far will the bicycle travel and how many turns will it make before it comes to rest? The pressure applied on brake is 100N and coeff of friction is 0.05.	6
b)	A differential band brake has a drum with a diameter of 800 mm. The two ends of the band are fixed to the pins on the opposite sides of the fulcrum of the lever at distances of 40mm and 200mm from fulcrum. The angle of contact is 270 degree and the coeff of friction is 0.2 . Find braking torque when a force of 600N is applied to lever at a distance of 800mm from the fulcrum.	6
c)	A multi disc clutch has 3 discs on driving and 2 disc on driven shaft. The outside dia of contact surface is 240mm and inside is 120. Assume uniform wear and coeff of friction 0.3. Find max intensity of pressure between discs for transmitting 25 KW at 1575 Rpm.	6