# MGM’S College of Engineering, NANDED.

**Department of Mechanical Engineering**

**QUESTION BANK FOR TEST-** **I**

ACADEMIC YEAR 2013-14, SEM – II

Class: T.E. (Mech.) Subject: SGT Date:15/02/2014

Duration : 01 Hr. Max. Marks: 20

Q.1 Why is the water used as working fluid in steam turbine power plant?

Q.2 & Q.3 Define and explain the following :

(i) Dryness fraction

(ii) Dry saturated steam

(iii) Sensible and Latent heat

(iv) Superheated steam

Q.4 Explain with a neat diagram the working of a Rankine cycle. Derive the expression for its thermal efficiency.

Q.5 Explain, what are the effects of Boiler pressure, Condenser pressure and Superheating on steam power plant.

Q.6 Explain with a neat diagram the working of a Binary vapour cycle. Derive the expression for its thermal efficiency.

Q.7 Why Carnot cycle is not a practical cycle for steam power plant even though its efficiency is higher?

Q.8 “ Water boils at lower temperature on hill station”, Comment on the statement with suitable sketch.

Q.9 to Q.14 Numerical on simple steam power plant.

Q.15 & 16 Numerical on Binary vapour cycle.

**D.N. Hatkar**

**Subject Incharge**