**Annexure No. SA/14**

**School of Aeronautics (Neemrana)**

**I-04, RIICO Industrial Area, Neemrana, Dist. Alwar, Rajasthan**

**QUESTION PAPER OF INTERNAL ASSESSMENT EXAMINATION (THEORY)**

IAE-1 Date: 28.01.19

Subject: Applied **Hydraulics & Pneumatics**  Batch: MT-2

Faculty Name: Mr. Ashok Bhatia Semester: 6th

**(Answer any Four Questions. All Questions carry equal marks)**

**Total No. of Questions: 07** **Total Marks: 30**

Q1. Derive an expression of Darcy Equation for pipe loss.

Q.2 Explain the classification of pump.

Q.3 Explain the fluid power symbols for different hydraulic system components.

Q4. Explain General types of fluid.

Q.5 Explain the construction and working of piston pump with neat sketch.

Q6. Explain the construction and working of vane pump with neat sketch.

Q7. Define the followings:

1. Pascal’s Law
2. Reynolds Number
3. Laminar flow
4. Turbulent flow

Q8. Oil, with ρ = 900kg/m3 and kinematic coefficient of viscosity ν = 0,00001m2/s, flows at qv = 0,2m3/s through 500 m of 200-mm diameter cast-iron pipe. Determine (a) the head loss and (b) the pressure drop if the pipe slopes down at 10 in the flow direction.