3039: MECHANICAL ENGINEERING

Important questions for series test-1

Topic: Module1

Study these questions and their answers

1)Define Fluid?

2) Define Viscosity? Also list the S.I unit of dynamic viscosity?

3) State Newtons law of viscosity?

4) State Pascal's law of fluid pressure and list it's two applications.

5) Calculate the specific weight, density,& specific gravity of one litre of a liquid which weighs 7N

6)Explain pressure head?

7) Explain the following fluid properties (i) Mass Density (ii) Specific weight(iii) Specific gravity.

8) Explain guage pressure,vacuum pressure& Absolute pressure along with relation between these pressures with atmospheric pressure.?Also illustrate different types of pressure with line diagram.

9) The right limb of a simple U-tube manometer containing mercury is open to the atmosphere while the left limb is connected to a pipe in which a fluid of specific gravity 0.9 is flowing.The centre of the pipe is 12cm below the level of mercury in the right limb.Find the pressure of fluid in the pipe if the difference of mercury level in the two limbs is 20cm.

10) A simple U-tube manometer containing mercury is connected to a pipe in which a fluid of specific gravity 0.8 and having vacuum pressure

is flowing.The other end of the manometer is open to atmosphere.Find the vacuum pressure in pipe, if the difference of mercury level in the two limbs is 40 cm and the height of the fluid in the left from the centre of pipe is 15cm below.

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