

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.TECH. (D.T.) DEGREE COURSE 2017-18

Semester : **I (V Dean)**
Course No. : DE-102
Credits : 2+1=3
Day & Date : Monday, 08.01.2018

Academic Year : **2017-2018**
Course Title : Fluid Mechanics
Total Marks : 50
Time : 11.00 to 13.00 Hrs.

- Note : 1) **Section "A"** is Compulsory..
2) Solve **Any Three** questions from Section **"B"**
3) The use of scientific tables, charts and calculator is allowed in case of engineering Courses.

SECTION - 'A'

Q. 1. A) Do as directed. (05)

- i) What is fluid mechanics?
- ii) Give the dimensions for Pressure and Energy.
- iii) What is gauge pressure?
- iv) What is stagnation tube, where it is used?
- v) Write the classification of fluid flow.

B) Give the Answer in one line. (05)

- i) What is Hydro-kinematics?
- ii) State the Bernoulli's theorem.
- iii) Enlist the properties of ideal fluid.
- iv) Define orifice.
- v) What is metacentric height.

Q. 2 A) State whether True or False. If false, rewrite the statement after making necessary corrections. (05)

- ~~i)~~ The tendency of a liquid surface to contract is due to the elasticity.
- ii) The bulk modulus of elasticity increases with pressure.
- ~~iii)~~ The increase of temperature results in decrease in viscosity of liquid.
- ~~iv)~~ Surface tension as a unit of N/m.
- ~~v)~~ Kinematic viscosity is equal to dynamic viscosity x density.

B) Choose the most appropriate answer from the options given below. (05)

- i) Fluid is a substance which offers no resistance to change of
 - a) Pressure
 - b) Flow
 - c) Shape
 - d) Volume
- ii) A fluid is said to be ideal, if it is
 - a) Incompressible
 - b) In viscous
 - c) In viscous and compressible
 - d) In viscous and incompressible
- iii) An ideal flow of any fluid must fulfill the following
 - a) Newton's law of motion
 - b) Newton's law of viscosity
 - c) Pascal's law
 - d) Continuity equation

(P.T.O.)

- ## SECTION - 'B'

- * * * * *

