

**School of University Polytechnic**

**Diploma in Civil Engineering  
Semester End Examination - Jun 2024**

**Duration : 180 Minutes  
Max Marks : 100**

**Sem IV - N1DB402B - Hydraulics***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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|-----|--|--------|
| 1)  | Define Unsteady Flow.  | K1(2)  |
| 2)  | Explain surface tension.   | K2(4)  |
| 3)  | Explain Non -Newtonian fluid.  | K2(6)  |
| 4)  | Derive the expression for measurement of velocity through pitot tube.                              | K3(9)  |
| 5)  | State the Pascal's Law and Explain it with example.  | K3(9)  |
| 6)  | Explain the Reynolds's experiment with neat diagram.   | K5(10) |
| 7)  | Differentiate between liquids and gases.   | K4(12) |
| 8)  | Derive the equation for measurement of guage pressure using U tube manometer.                      | K5(15) |
| 9)  | Determine the viscosity of a liquid having kinematic viscosity 6 stokes and specific gravity 1.9 . | K5(15) |
| 10) | Derive the expression for head losses due to friction in pipes.                                    | K6(18) |