

**Final Exam**

*CE 321 Fluid Mechanics  
 First semester 1425/1426 H  
 Time: 3 hours*

Student Name:- .....  
 Student No.:- .....

Mark:-.....

**Useful Information**

$\rho = 1000 \text{ kg/m}^3 = 1.94 \text{ slug/ft}^3$ $g = 9.81 \text{ m/sec}^2 = 32.174 \text{ ft/sec}^2$ $P_{\text{atm}} = 101.33 \text{ kPa} = 14.7 \text{ psi} = 760 \text{ mm Hg}$ $P_{\text{abs}} = P_{\text{atm}} + P_{\text{gauge}}$ $h_p = h_c + \frac{I_{\text{cx}}}{h_c A}$ $h = \frac{4\sigma \cos \theta}{\rho g d}$	$MG = MB - BG$ $\frac{P}{\rho g} + \frac{u^2}{2g} + z = H$ $F_x = \rho Q(u_2 - u_1)$ $P = \rho g QH$	$\tau = \mu \frac{du}{dz}$ $\frac{dP}{dz} = -\gamma$ $MB = \frac{I_{yy}}{V}$
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*Instructor:- Prof. Abdulaziz A. Alhamid*









