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**Question Paper Code: 55502**

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Fifth Semester

Electronics and Instrumentation Engineering

15UEI502 - INDUSTRIAL INSTRUMENTATION – II

(Regulation 2015)

Duration: 1:45 hour

Maximum: 50 Marks

PART A - (10 x 2= 20 Marks)

**(Answer any ten of the following questions)**

11. How did impeller works in mass flow meters?
2. Determine the velocity of flow in an electromagnetic flow meter for the following indications. The flux density in the liquid has  $0.08 \text{ Weber/m}^2$ . The diameter of the pipe is 10 cm. The induced voltage is 0.2mV.
3. Mention the advantages of sight glass level instrument.
4. Brief the operation of thermal level sensor.
5. Calculate Dew point using difference in temperature in dry and wet bulb Psychrometer?
6. How did impeller works in mass flow meters?
7. Write the principle of vortex shedding flow meter operates.
8. Mention the advantages of sight glass level instrument.
9. Brief the operation of thermal level sensor.
10. Calculate Dew point using difference in temperature in dry and wet bulb Psychrometer?
11. How did impeller works in mass flow meters?

12. Determine the velocity of flow in an electromagnetic flow meter for the following indications. The flux density in the liquid has  $0.08 \text{ Weber/m}^2$ . The diameter of the pipe is 10 cm. The induced voltage is 0.2mV.
13. Mention the advantages of sight glass level instrument.
14. Brief the operation of thermal level sensor.
15. Calculate Dew point using difference in temperature in dry and wet bulb Psychrometer?

PART – B (3 x 10= 30 Marks)

**(Answer any three of the following questions)**

16. Pressure before orifice plate rises and pressure after it reduces but velocity increases-Justify the statement. Describe its construction and Working in detail. (10)
17. With a neat diagram explain about the construction and working operation of Electromagnetic flow meter and also discuss its advantages and limitations. (10)
18. Explain in detail about different types of Level detectors used in Level measurement. (10)
19. Draw and explain different types of Contact level sensors. (10)
20. Describe the working principle of Rota meter type viscosity measurement. Mention the effect of temperature on viscosity. State the application of viscosity measurements in process industries. (10)