Q.27 Name any four static characteristics of instruments and define any one.

Q.28 Define accuracy and precision.

Q.29 Explain the working principle of manometer with the help of diagram.

Q.30 Explain any one method for the measurement of viscosity.

Q.31 Explain the concept of automatic process control.

Q.32 Explain the working principle of pH meter

Q.33 Explain different types of controllers in process control.

Q.34 Write importance of instruments in process industries.

Q.35 Write a short note on industrial weighing systems.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Discuss humidity measurement methods. Also write its applications.

Q.37 How venturi meter is used for flow measurement. Also write its applications.

Q.38 Discuss differential method for liquid level measurement. Also write applications of level measurement.

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5th Sem / Food Tech.
Subject:- Instrumentation and Process Control

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Unit of temperature is

a) Celsius b) Fahrenheit
c) Kelvin d) All of these

Q.2 Thermocouple is device which works on the principle of

a) Seeback effect b) Seepoint effect
c) Halls effect d) None of these

Q.3 pH value of water is

a) 5 b) 7
c) 9 d) 0

Q.4 Venturi meter is used for measurement of

a) Control b) Flow
c) Humidity d) None of these

Q.5 Bar is the unit of

a) Temperature b) Level
c) Pressure d) Humidity

Q.6 Secondary Measurement involves_____ translations on the quantity to be measured

a) 1 b) 2

c) 3 d) 0

Q.7 Unit of density is_____

a) Mass/Volume b) Force/Area

c) Force / Volume d) None of these

Q.8 Instrumentation in an industry offers the advantage of_____

a) Less cost b) Better Quality

c) Greater safety d) All of the above

Q.9 Which instrument is used to measure liquid flow

a) Bourdon Tube b) Orifice meter

c) Load cell d) None of these

Q.10 Meaning of Pyro is_____

a) Light b) Weight

c) Pressure d) Radiation

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Write two advantages of thermocouple.

Q.12 Write down two units of pressure.

Q.13 Write formula for conversion of degree Celsius to degree kelvin.

Q.14 Orifice is used to measure _____ rate.

Q.15 Name two flow measuring instruments.

Q.16 Pyrometer is used to measure highly heated materials. (True/False)

Q.17 Name two pressure measuring instruments.

Q.18 Thermistor is combination of two words thermal plus_____

Q.19 Expand TSS.

Q.20 Hygrometer is used to measure the_____

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Describe the significance of flow measurement and write unit of flow.

Q.22 Explain thermocouple method for temperature measurement.

Q.23 Describe radiation pyrometer and its advantages.

Q.24 Describe the construction and working principle of bourdon tube.

Q.25 Describe the rotameter method for flow measurement.

Q.26 Explain any one method for liquid level measurement.