

**SANT GADGE BABAB AMRAVATI UNIVERSITY, AMRAVAATI**  
**BACHELOR OF ENGINEERING SEMESTER VII(CGS) EXAMINATION OF S-2020**

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**H.V.P.Mandal's College of Engineering and Technology, Amravati**  
**Department of Mechanical Engineering**

**Academic Session:2019-20**

**Semester:V**

**Unit- I,II,III,IV,V,VI**

**Date:30/10/2020**

**Subject Name : Measurements System**

**Subject Code : 5ME03**

**Max Marks:20**

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**Solve any Two Questions out of Four Questions**

**All Questions carry equal marks**

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|-------------|---|----------|
| <b>Q.1)</b> | <b>a) What are the applications of measurement system?</b>                | <b>1</b> |
|             | <b>b) Define drift and reproducibility.</b>                               | <b>2</b> |
|             | <b>c) Explain in details atmospheric pressure.</b>                        | <b>1</b> |
|             | <b>d) What is hot wire anemometer?</b>                                    | <b>2</b> |
|             | <b>e) What is optical pyrometer?</b>                                      | <b>2</b> |
|             | <b>f) Explain how L.V.D.T.is used to measure the linear displacement.</b> | <b>2</b> |
| .....       | .....   | ..       |
| <b>Q.2)</b> | <b>a) Discuss any one application of measurement system.</b>              | <b>1</b> |
|             | <b>b) Define threshold and resolution.</b>                                | <b>2</b> |
|             | <b>c) Explain in details absolute pressure.</b>                           | <b>1</b> |
|             | <b>d) What is four strain gauge?</b>                                      | <b>2</b> |
|             | <b>e) What is RTD? Draw its working diagram.</b>                          | <b>2</b> |
|             | <b>f) Explain the piezoelectric accelerometer.</b>                        | <b>2</b> |
| .....       | .....   | ..       |
| <b>Q.3)</b> | <b>a) What are the various mode of measurement?</b>                       | <b>1</b> |
|             | <b>b) Define accuracy and sensitivity.</b>                                | <b>2</b> |
|             | <b>c) Explain in details gauge pressure.</b>                              | <b>1</b> |
|             | <b>d) Draw neat figure Electromagnetic flow meter.</b>                    | <b>2</b> |
|             | <b>e) Describe calibration process of liquid in glass thermometer.</b>    | <b>2</b> |
|             | <b>f) Explain piezoelectric pick up.</b>                                  | <b>2</b> |
| .....       | .....   | ..       |
| <b>Q.4)</b> | <b>a) Explain Borden pressure gauge.</b>                                  | <b>1</b> |
|             | <b>b) Define scale range and span.</b>                                    | <b>2</b> |
|             | <b>c) Classify resistance strain gauge.</b>                               | <b>2</b> |
|             | <b>d) What is turbine flow meter?</b>                                     | <b>1</b> |
|             | <b>e) Describe the calibration process of thermocouple.</b>               | <b>2</b> |
|             | <b>f) Explain magnetic pick up.</b>                                       | <b>2</b> |
| .....       | .....   | ..       |