

1333**Code : 15ME33T**Register
Number

--	--	--	--	--	--	--

III Semester Diploma Examination, April/May-2018**MECHANICAL MEASUREMENTS****Time : 3 Hours]****[Max. Marks : 100**

- Note :** (i) Answer any **six** questions from Part – A.
(ii) Answer any **seven** questions from Part – B.

BETA CONSOLE!**PART – A**

1. State the factors in selecting Measuring Instruments.

2. Define :

- (i) Accuracy
- (ii) Sensitivity
- (iii) Precision
- (iv) Repeatability

3. State the factors to be considered while selecting transducers.

4. State any five Requirements of Ideal Strain Gauge.

5. Define force. List any three types of force measuring instruments.

6. Sketch the resistance thermometer and label the parts.

7. Explain with the neat sketch of Revolution Counter Tachometer.

8. Explain with the neat sketch of Hydrometer.

9. Define :

- (i) Tolerance
- (ii) Deviation
- (iii) Tolerance Zone
- (iv) Limit



Diploma - [All Branches]

Beta Console Education 5



5



Diploma Question Papers [2015-19]

Beta Console Education



PART - B

10. (a) Explain with a neat sketch of screw thread micrometer. 5
(b) Explain with a neat sketch 5
(i) Plain Plug Gauge
(ii) Ring Gauge
11. (a) Explain with a neat sketch of Coordinating Measuring Machine (CMM). 5
(b) Explain Systematic Error and Random Errors. 5
12. (a) Explain with the neat sketch of Berry Type Mechanical Strain Gauge. 5
(b) Explain with a neat sketch of Piezo Electric Transducer. 5
13. (a) Explain the Mounting Procedure of Strain Gauge. 5
(b) Explain with the neat sketch of 2 element and 3 element rosetter. 5
14. (a) Explain with a neat sketch of McLeod Gauge. 5
(b) Explain with a neat sketch of Prony Brake Dynamometer. 5
15. (a) Explain the working of Spring Balance. 5
(b) Explain with the neat sketch of LVDT. 5
16. (a) Differentiate between Resistance Thermometer and Thermocouple. 5
(b) Explain with a neat sketch of working of Rotameter. 5
17. (a) Explain with a neat sketch of Hair Hygrometer. 5
(b) Explain with a neat sketch of Sight Glass Liquid Level Measurement. 5
18. (a) Distinguish between Hole Basis System and Shaft Basis System. 5
(b) Explain with neat sketch of 5
(i) Clearance fit
(ii) Interference fit
(iii) Transition fit
19. (a) Explain with a neat sketch, the procedure for checking the parallelism of spindle axis to the carriage movement in Lathe. 5
(b) List the various types of Testing Equipment used for machine Tool Alignment Test. 5