Roll No. _____

END SEMESTER EXAMINATION
SEMESTER-V (New/Old Course)

COURSE CODE : ME506 | **DURATION : 3 (THREE)HRS**
COURSE TITLE : MECHANICAL MEASUREMENT | **MAXIMUM MARKS : 75**
SESSION : JULY-DEC'2021 | **PASS MARKS : 35 %**

NOTE:
1. Attempt any 5 (five) questions
2. Mark for each question is shown against it.
3. Assume suitable logical data wherever necessary.

1. **(a)** With help of neat sketch write the use and care of steel rule? **(5)**
(b) What do you mean by mechanical comparator and explain the working principle of dial indicator with neat sketch? **(6)**
(c) Write down the advantages and disadvantage of mechanical comparator? **(4)**

2. **(a)** With the help of neat diagram state the working principle of electrical and electronic comparator? **(7)**
(b) How do you classify slip gauges explain them? **(5)**
(c) What do you mean by metrology? **(3)**

3. **(a)** Describe with a sketch the working principle of auto-collimator? **(6)**
(b) With the help of neat diagram write the use of micro optic autocollimator? **(5)**
(c) Write down the advantage and disadvantage of pneumatic comparator? **(4)**

4. **(a)** With the help of neat diagram write the use of vernier bevel protractor? **(5)**
(b) Define following term **(3x2)**
1)ISO 2)ISA 3)NPL

(c) With neat sketch, write down the uses of vernier depth gauge? **(4)**

5. **(a)** Write down the uses of following measuring instrument with the help of neat diagram; **(2x5)**
1)sine bar 2)spirit level
(b) Explain briefly about standard terminology? **(5)**

6. **(a)** With neat sketch, write down the uses of inside micrometers calipers? **(5)**
(b) With neat sketch, write down the uses of vernier height gauge? **(5)**
(c) With help of neat sketch write the uses of optical bevel protractor? **(5)**

7. **(a)** With neat sketch, write down the uses of vernier caliper? **(6)**
(b) With help of neat sketch write the use and care of sine table? **(5)**
(c) Write down the general cares should be taken for measuring instruments? **(4)**

8. **(a)** Define the following term? **(5X3)**
1)Scale interval 2)Measuring range 3)Bias
4) Response time 5)Precision & Accuracy

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