

[2]

UNIT-III

5. a) Describe briefly some recent advances in the field of surface texture measurement.
 b) Describe an instrument for measuring surface finish.

OR

- Why is the assessment of surface texture important? Describe two methods to obtain a numerical value of the texture from a given graphical record.

UNIT-IV

- a) Derive an expression for the best size wire.
 b) Explain how the various elements of internal threads are measured?

OR

- a) How would you check the accuracy of pitch of a plug screw gauge?
 b) Explain constant chord method with diagram.

UNIT-V

What do you understand by machine vision system give a overview of machine vision system and explain the principle of working.

OR

Explain any two

- a) Laser micro meter
 b) Laser interferometer
 c) Laser scanning guage

AU/IP/IEM - 503**B.E. V Semester**

Examination, December 2013

Metrology Measurement And Control*Time : Three Hours**Maximum Marks : 70***Note:** All questions carry equal marks.**UNIT-I**

1. a) Describe the following types of error and how they can be taken care of:-
 i) Environmental error
 ii) Parallax error
 iii) Error due to application of measuring force.
 b) Discuss the characteristics of line standards and end standards.

OR

2. a) What are the consideration for deciding the limits on the limits guage?
 b) Explain the principle of interferometer by suitable diagram.

UNIT-II

3. Explain the various instrument used for linear measurement.

OR

4. a) Discuss the relative advantages of vernier caliper and micrometer.
 b) What are the basic principles that should be observed in the design of instrument and guages?