

Total No. of Printed Pages: 02

SUBJECT CODE NO:- H-631
FACULTY OF SCIENCE AND TECHNOLOGY
B.E. (MECHANICAL) (Sem-I)
Metrology & Quality Control
[CGPA]

[Time: Three Hours]**[Max.Marks:80]**

Please check whether you have got the right question paper.

N.B

1. Attempt any three questions from each section.
2. Assume suitable data if necessary.
3. Figures to the right indicate full marks.

Section A

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|-----|--|----|
| Q.1 | a) What are the different sources of error? | 07 |
| | b) Explain the working of sine bar with a neat sketch. | 06 |
| Q.2 | a) Explain Reed type mechanical comparator. | 07 |
| | b) Explain the phenomenon of light wave interference. | 06 |
| Q.3 | a) Explain the construction and working of Taylor Hobson Taly surf. | 07 |
| | b) What are the different types of fits? Give an example of each. | 06 |
| Q.4 | a) Explain construction and working of profile projector. | 07 |
| | b) Explain construction and working of co. ordinate measuring machine (CMM). | 06 |
| Q.5 | Write short notes on (any two) | 14 |
| | a) NPL Interferometer | |
| | b) Angle Dekkor | |
| | c) LASER in Metrology | |

Section B

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|-----|--|----|
| Q.6 | a) Explain the concept of quality circle. | 07 |
| | b) What is cause & effect Diagram? Explain with an example. | 06 |
| Q.7 | a) What is scatter diagram? Explain its three types. | 07 |
| | b) What is fault Tree analysis (FTA)? Explain with an example. | 06 |
| Q.8 | a) What is "Kaizen"? Explain with an example. | 07 |
| | b) What is "Kanban"? Explain with an example. | 06 |
| Q.9 | a) What is process capability? Explain with an example. | 07 |
| | b) What is Acceptance sampling? State its advantage and disadvantages. | 06 |

Q.10 Write short notes on (any two)

- a) OC Curve
- b) JIT
- c) FMECA