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Roll No. 121762/31762/84532/
031846/105355

6th Sem. / Mech. Engg.

Subject : Inspection & Quality Control

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

- Q.1 Define unit.
- Q.2 List any two factors contributing in error during taking measurement.
- Q.3 Define precision.
- Q.4 Tell the least count of micrometer.
- Q.5 Define interchangeability.
- Q.6 Define standard.
- Q.7 Tell the prime use of dial indicator?
- Q.8 Define dedendum in gears.
- Q.9 Tell the function of depth gauge.

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- Q.10 List two instruments used for measuring flatness.

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions. (10x2=20)

- Q.11 How sine bar is used for angular measurement in brief?
- Q.12 Differentiate between transition fit & clearance fit with neat sketch.
- Q.13 Explain working of clinometer.
- Q.14 Explain in-process inspection.
- Q.15 Explain straight edge method for measurement to straightness.
- Q.16 Explain procedure for alignment test on milling machine.
- Q.17 Explain indicator method for measurement of squareness.
- Q.18 Explain working principle of Vernier calliper.

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- Q.19 Describe a method to measure displacement by electromechanical transducer of any type.
- Q.20 Explain 'X' type control chart & its applications.
- Q.21 Write short note on wavelength standards.
- Q.22 Explain the effect of temperature, dirt & vibration in precision measurement.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8×5=40)

- Q.23 Explain the importance of TQM in industry.
- Q.24 Illustrate various sampling plans in brief.
- Q.25 Show & explain normal distribution with diagram in brief.
- Q.26 Illustrate the working of snap gauge.
- Q.27 Show & explain any alignment test on lathe.
- Q.28 Illustrate method of measurement of vibration by capacitance type electro mechanical transducer.
- Q.29 Illustrate the methodology of any two QC tools.

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- Q.30 Show & Explain 'C' type control chart & its applications.
- Q.31 Illustrate any two measurement errors with their effect on quality.
- Q.32 Differentiate between incoming and in-process inspection.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions. (3×10=30)

- Q.33 Illustrate the various factors influencing the quality of manufacture.
- Q.34 Explain the working principle & constructional detail of micrometer in detail with help of neat sketch.
- Q.35 Explain the construction & working of profile projector with neat sketch in detail.
- Q.36 Illustrate the working principle & constructional details of mechanical comparator in detail with help of neat sketch.

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