

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: MEC 601 and Course Name: Metrology and Quality Engineering

SAMPLE PAPER

Q1.	Identify angle measurement instrument.
Option A:	Vernier caliper
Option B:	Sine bar
Option C:	Pirani gauge
Option D:	Parkinson gear tester
Answer	Option B: Sine bar
Q2.	Choose standard in which parallax error occur
Option A:	Specific standard.
Option B:	End standard.
Option C:	Wavelength standard.
Option D:	Line standard.
Answer	Option D: Line standard
Q3.	Identify Least count of vernier caliper.
Option A:	0.02 mm
Option B:	0.5 mm
Option C:	1 mm
Option D:	2mm
Answer	Option A: 0.02
Q4.	Vernier caliper not able to measure _____.
Option A:	Depth of hole.
Option B:	Length of workpiece.
Option C:	Internal diameter of hole.
Option D:	Flatness of surface.
Answer	Option D: Flatness of surface.
Q5.	In comparison measurement, precision depends on
Option A:	least count of the comparator.
Option B:	least count of the standard.
Option C:	least count of the scale of the instrument.
Option D:	Range of the instrument.
Answer	Option B: least count of the standard.
Q6.	Identify method of measurement of comparator.
Option A:	displacement method
Option B:	interchange method
Option C:	direct method

Option D:	Parkinson method
Answer	Option B: interchange method
Q7.	Choose type of movement and basic principal of the Johansson mikrokator.
Option A:	Johansson movement
Option B:	Abbey movement
Option C:	Abraham movement
Option D:	Abramson movement
Answer	Option D: Abramson movement
Q8.	In a Sigma mechanical comparator, magnification is obtained_____.
Option A:	in a single stage
Option B:	in two stages
Option C:	in three stages
Option D:	depending on the manufacturer's instruction
Answer	Option B: in two stages
Q9.	RMS value denote
Option A:	Least count of gauge.
Option B:	Surface roughness value.
Option C:	Range of measuring instrument.
Option D:	Accuracy of measuring instrument.
Answer	Option B: Surface roughness value.
Q10.	Choose gauge whose output is relatively free from operator's error.
Option A:	Filler gauge.
Option B:	Zeiss ultra-optimeters.
Option C:	Pneumatic gauge.
Option D:	Vernier caliper.
Answer	Option C: Pneumatic gauges.
Q11.	Identify optical comparators.
Option A:	Johansson mikrokator.
Option B:	Sheffield Reed.
Option C:	Sigma comparator.
Option D:	Dial Indicator.
Answer	Option B: Sheffield Reed.
Q12.	Choose the gauge used to inspect external thread.
Option A:	plug screw gauge.
Option B:	ring screw gauge.
Option C:	external screw gauge.
Option D:	Pinion gauge.
Answer	Option A: plug screw gauge.
Q13.	Identify the two methods of inspecting screw threads

Option A:	inspection by constants and variables.
Option B:	inspection by variables and attributes.
Option C:	inspection by quality and cost.
Option D:	inspection of attributes and constants.
Answer	Option B: inspection by variables and attributes.
Q14.	A NOT GO screw gauge applied to check
Option A:	outer diameter.
Option B:	inside diameter.
Option C:	effective diameter.
Option D:	specific diameter.
Answer	Option D: effective diameter.
Q15.	Identify first activity of Quality Spiral.
Option A:	Design.
Option B:	Customer services.
Option C:	Market research.
Option D:	Manufacturing.
Answer	Option D: Market research
Q16.	Grouping of articles as per the dimensions is called as
Option A:	Attribute.
Option B:	Method.
Option C:	Action.
Option D:	Variable.
Answer	Option A: Attribute.
Q17.	Identify three steps in Juran's trilogy
Option A:	Planning, Manufacturing, Inspection.
Option B:	Planning, Control, Improvement.
Option C:	Planning, Inspection, Conclusion
Option D:	Planning, Inspection, Testing
Answer	Option B: Planning, Control, Improvement.
Q18.	Choose approximate prevention cost In cost of quality.
Option A:	10 %
Option B:	20 %
Option C:	40 %
Option D:	50 %
Answer	Option A: 10%
Q19.	In cost of failure Rework is classified under_____.
Option A:	External failures
Option B:	Internal failures
Option C:	No failure
Option D:	Non-significant failure
Answer	Option B: Internal failure

Q20.	Identify equipment used for attribute inspection.
Option A:	Gauges.
Option B:	Measuring Instrument.
Option C:	Visual Inspection.
Option D:	Touch Inspection.
Answer	Option A: Gauges.
Q21.	Identify the least expensive and least time-consuming of all sampling techniques
Option A:	Stratified sampling.
Option B:	Snowball sampling.
Option C:	Convenience sampling.
Option D:	Judgmental sampling.
Answer	Option C: Convenience sampling.
Q22.	Identify most expensive sampling plan.
Option A:	Single sampling plan.
Option B:	Sequential sampling plan.
Option C:	Double sampling plan.
Option D:	Specific sampling plan.
Answer	Option B: Single sampling plan.
Q23.	Average sample size is low in case of
Option A:	Single sampling plan.
Option B:	Sequential sampling plan.
Option C:	Double sampling plan.
Option D:	Specific sampling plan.
Answer	Option B: Sequential sampling plan.
Q24.	Identify best suitable Non-Destructive Testing method for ferrous material.
Option A:	Radiographic testing.
Option B:	Magnetic Particle testing.
Option C:	Ultrasonic testing.
Option D:	Rigid Testing.
Answer	Option B: Magnetic Particle testing.
Q25.	Choose Non-Destructive Testing method used to detect change in composition of any material.
Option A:	Liquid penetration testing.
Option B:	Radiographic Testing.
Option C:	Rigid Testing.
Option D:	Eddy current testing.
Answer	Option B: Radiographic Testing.