

**These are sample MCQs to indicate pattern, may or may not appeared in examination**

Program: BE Automobile Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester V

Course Code: AE502 and Course Name: Metrology and Quality Engineering

Time: 1 hour

Max. Marks: 50

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Note to the students: - All the Questions are compulsory and carry equal marks

**Commented [S1]:** DELETE AT THE TIME OF SUBMISSION OF SET FOR THE SAME PUPURPOSE SELECT ENTIRE TEXT HIGHLIGHTED AND CUT.

Q1.	What do N, P and L mean in N.P.L. Gauge interferometer?
Option A:	Nikon pulsed laser
Option B:	Nuclear plasma laboratory
Option C:	National Physics Laboratory
Option D:	Nuclear physics laboratory
Q2.	Which of the following errors are also known as cumulative errors?
Option A:	Random errors
Option B:	Systematic errors
Option C:	Gross errors
Option D:	System interaction errors
Q3.	Why are pitch errors observed in threads?
Option A:	Lack of inspection
Option B:	Incorrect ratio of tool work velocity

Option C:	Interference between mating parts
Option D:	Manufacturing error
Q4.	Zero defects terminology was used by
Option A:	Crosby
Option B:	Deming
Option C:	Juran
Option D:	Taguchi
Q5.	What is meant by P, D, C and A in PDCA cycle?
Option A:	Progress Development Check Act
Option B:	Plan Do Check Act
Option C:	Project Development Check Act
Option D:	Prevention Do Check Act
Q6.	What is meant by Kaizen?
Option A:	card signal
Option B:	to avoid inadvertent errors
Option C:	change for better quality
Option D:	Fool proofing
Q7.	X bar chart indicates
Option A:	consistency of the process
Option B:	variability
Option C:	centering of the process
Option D:	proportion of defectives
Q8.	X bar and R charts are used to find out

Option A:	production control
Option B:	cost control
Option C:	process control
Option D:	material Control
Q9.	In a p chart large sample size is generally
Option A:	advisable
Option B:	economical
Option C:	uneconomical
Option D:	not required
Q10.	Which among the following is a type of control chart for variables?
Option A:	C chart
Option B:	P chart
Option C:	X chart
Option D:	U chart
Q11.	Who among the following suggested seven quality tools for controlling quality?
Option A:	Juran
Option B:	Kaoru Ishikawa
Option C:	Dr. W. Edward Deming
Option D:	Feigenbaum
Q12.	The average value of the quality characteristic corresponding to in control state is represented by
Option A:	control limit
Option B:	upper control limit

Option C:	lower control limit
Option D:	sample number
Q13.	The distribution of measured data can be studied by using
Option A:	X chart
Option B:	R chart
Option C:	C chart
Option D:	P chart
Q14.	Which type of chart uses the rule of 20:80?
Option A:	cause and effect chart
Option B:	Pareto chart
Option C:	fish bone diagram
Option D:	control chart
Q15.	OC curve of ideal sampling plan suggests that all lots less than 3% defectives have the probability of acceptance of
Option A:	0.25
Option B:	0.5
Option C:	0.75
Option D:	1
Q16.	Which is the best statement regarding an operating characteristic curve?
Option A:	As the lot tolerance percent defective decreases, the consumer's risk also decreases
Option B:	As the fraction defective decreases, the probability of accepting the lot also decreases.
Option C:	As the fraction defective increases, the probability of accepting the lot also increases.
Option D:	As the AQL decreases, the producer's risk also decreases.

Q17.	Acceptance sampling plans might call for selection of
Option A:	one or more samples
Option B:	a variable number of samples based on actual results
Option C:	random inspections
Option D:	100% inspection
Q18.	An OC curve shows
Option A:	average outgoing quality
Option B:	the average outgoing quality limit
Option C:	operating control
Option D:	probability of acceptance versus lot quality
Q19.	Which type of CMM is most suited for large heavy workpieces?
Option A:	Bridge type
Option B:	Horizontal boring mill type
Option C:	Floating bridge type
Option D:	Cantilever type
Q20.	What is tooth thickness?
Option A:	Circular pitch / 4
Option B:	Circular pitch / 2
Option C:	4 x Circular pitch
Option D:	2x Circular pitch
Q21.	An optical flat can be employed to measure height differences in the range of
Option A:	0.01–0.1 mm
Option B:	1–10 mm

Option C:	10–100 mm
Option D:	1–10 m
Q22.	Which of the following is true about Tomlinson surface meter?
Option A:	It is a mechanical instrument
Option B:	It is an electrical instrument
Option C:	It is a mechanical cum optical instrument
Option D:	It is an optical instrument
Q23.	What is the advantage of mechanical comparator over others?
Option A:	Less moving parts
Option B:	No need of external supply
Option C:	No error due to parallax
Option D:	Large range of instrument
Q24.	The main use of a tool maker's microscope is measuring
Option A:	phase shift of monochromatic light
Option B:	shape, size, and angle of small components
Option C:	biological degradation of small machine components
Option D:	contours of large machine parts
Q25.	The snap gauge having GO dimension corresponds to
Option A:	minimum metal condition
Option B:	maximum metal condition
Option C:	difference of metal condition
Option D:	Geometry of metal