

University of Mumbai
Online Examination 2020

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

Program: BE Mechanical

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: MEC601 and Course Name: Metrology & 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 [FloT1]: DELETE AT THE TIME OF SUBMISSION OF SET FOR THE SAME PUPURPOSE SELECT ENTIRE TEXT HIGHLIGHTED AND CUT.

Q1.	It is the physical quantity or property like length, angle, diameter etc. to be measured is called as
Option A:	Reference
Option B:	Comparator
Option C:	Measurement
Option D:	Measurand
Q2.	Gauges used for checking the holes are called as
Option A:	Plug gauges
Option B:	Snap gauges
Option C:	Gap gauges
Option D:	Simple gauges
Q3.	In a shaft basis system, the upper deviation of the size of shaft is
Option A:	1
Option B:	Less than 0
Option C:	0
Option D:	Not related to size
Q4.	The cost of processing complains from the customer is associated with
Option A:	Cost of Appraisal
Option B:	Cost of Prevention
Option C:	Cost of internal failures
Option D:	Cost of external failures
Q5.	Cost associated with the defective products, & materials that fail to meet quality resulting mfg. losses is called as
Option A:	Cost of external failures
Option B:	Cost of internal failures

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Option C:	Cost of Appraisal
Option D:	Cost of Prevention
Q6.	Following quality of a product is concerned with the how well the manufactured product gives its performance
Option A:	Quality of Design
Option B:	Quality of performance
Option C:	Quality of Conformance
Option D:	Quality of Control
Q7.	This is the unit of surface roughness
Option A:	Meters
Option B:	Centimeters
Option C:	Inch
Option D:	Microinch
Q8.	Among the stylus-based measurement systems, the _____ and Taylor–Hobson talysurf are popular.
Option A:	LVDT
Option B:	Parkinson Gear Tester
Option C:	Micrometer Screw Gauge
Option D:	Tomlinson surface meter
Q9.	The main use of spirit level-based instruments like clinometers is not for measuring angles per se. They are used for measuring alignment of machine parts and determination of _____ and straightness.
Option A:	Flatness
Option B:	Cylindricity
Option C:	Concentricity
Option D:	Surface Roughness
Q10.	Though an interferometer works on the same basic principle as that of an optical flat, it is provided with arrangements in order to control the lay and orientation of _____ .
Option A:	cracks
Option B:	holes
Option C:	temperature
Option D:	fringes
Q11.	Flatness error may be defined as the minimum separation of a pair of _____ planes that will just contain all the points on the surface.

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Option A:	perpendicular
Option B:	parallel
Option C:	angular
Option D:	circular
Q12.	_____ Controls the extent of deviation of a feature from a flat plane
Option A:	Flatness
Option B:	Cylindricity
Option C:	Concentricity
Option D:	Surface Roughness
Q13.	An _____ interferometer is being used to determine the error of flatness of a precision component.
Option A:	NPL flatness
Option B:	LVDT
Option C:	CMM
Option D:	CNC
Q14.	An optical flat is a disk of high-quality glass or quartz. The surface of the disk is ground and lapped to a high degree of _____.
Option A:	Flatness
Option B:	Cylindricity
Option C:	Concentricity
Option D:	Angularity
Q15.	Interferometers are optical instruments that are used for very small _____ measurements.
Option A:	linear
Option B:	angular
Option C:	Tertiary
Option D:	rotary
Q16.	What type of teeth is present in involute rack?
Option A:	Spiral
Option B:	helical
Option C:	spur
Option D:	straight
Q17.	What is the effect of improper alignment of each tooth?
Option A:	Tooth thickness increases
Option B:	Face width decreases
Option C:	Load will not be distributed evenly

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Option D:	Pitch of teeth reduced
Q18.	Which of the following is imaginary?
Option A:	Tooth thickness
Option B:	Module
Option C:	Pitch circle diameter
Option D:	Outer diameter
Q19.	Which of the following machine is used for rolling tests?
Option A:	Parkinson gear tester
Option B:	Tooth caliper
Option C:	Base pitch measuring instrument
Option D:	Involute profile testing machine
Q20.	Three wire method is used for _____
Option A:	angle measurement
Option B:	depth measurement
Option C:	flatness measurement
Option D:	screw thread measurement
Q21.	What is the effect of pitch error?
Option A:	Increase effective diameter of bolt
Option B:	Decrease effective diameter of screw
Option C:	Increase effective diameter of nut
Option D:	Increase effective diameter of both nut and screw
Q22.	What type of chart will be used to plot the number of defectives in the output of any process?
Option A:	x bar chart
Option B:	R chart
Option C:	np chart
Option D:	p chart
Q23.	Which of these is an advantage of attribute control chart?
Option A:	Much useful information about the process performance can be gathered
Option B:	Mean and variability is obtained directly
Option C:	One quality characteristic is observed at a time
Option D:	Several quality characteristics can be considered jointly
Q24.	On operating characteristics curve, producers' risk is denoted by
Option A:	α
Option B:	β
Option C:	γ
Option D:	q

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Q25.	Identify the CORRECT statement about Accepting Sampling ---
Option A:	The purpose of acceptance sampling is to accept or reject product lots (also known as lot disposition), based on a random sample of the product, rather than to estimate the quality of a lot.
Option B:	Acceptance sampling plans directly improves quality.
Option C:	The nature of sampling is such that acceptance sampling will reject product lots if they don't match the same the same quality.
Option D:	The most cannot be used as an auditing tool because it cannot ensure that the output of a process meets requirements.