Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester VI

Course Code: MEC604 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.

Q1.	**Extent of reproducibility of measurement is called as _____.**
Option A:	Precision
Option B:	Error
Option C:	Accuracy
Option D:	Calibration
Q2.	**If error occurs during each revolution of the meshing gear, it is called _____.**
Option A:	Cyclic error
Option B:	Periodic error
Option C:	Runout error
Option D:	Eccentricity
Q3.	**Errors due to human mistakes are called as _____.**
Option A:	Systematic Errors
Option B:	Random Errors
Option C:	Gross Errors
Option D:	Instrumental Errors
Q4.	**Two extreme permissible sizes for a dimension of a part are called as _____.**
Option A:	Limits
Option B:	Fits
Option C:	Tolerance
Option D:	Allowance
Q5.	**The following is used to check the diameters of holes**
Option A:	Plug gauge
Option B:	Ring gauge
Option C:	Slip gauge
Option D:	Standard screw pitch gauge

Q6.	**Which of the following is not a line standard?**
Option A:	Length bar
Option B:	Precision scale
Option C:	Yard
Option D:	Meter
Q7.	**Which of the following is not a type of direct measuring instrument?**
Option A:	micrometer
Option B:	vernier caliper
Option C:	divider
Option D:	Vernier Height Gauge
Q8.	**Johansson mickrocator is a type of**
Option A:	mechanical optical comparator
Option B:	mechanical comparator
Option C:	optical comparator
Option D:	electrical comparator
Q9.	**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
Q10.	**Sampling errors are caused due to _____.**
Option A:	Method used for sample selection
Option B:	Method used for sample manufacturing
Option C:	Method used for sample inspection
Option D:	Defective parts present in samples
Q11.	**Suppose a finite population contains 7 items and 3 items are selected at random without replacement, then all possible samples will be:**
Option A:	21
Option B:	35
Option C:	14
Option D:	7
Q12.	**A device used to measure the geometry of physical objects by sensing discrete points on the surface of the object with a probe is _____.**
Option A:	Tool maker's microscope
Option B:	Autocollimator
Option C:	Coordinate measuring machine
Option D:	Interferometer

Q13.	**The _____ to the ceramics are superior coatings.**
Option A:	Nano particles
Option B:	Nano powder
Option C:	Nano crystals coating
Option D:	Nano gel
Q14.	**Dispersion of a process in monitored in**
Option A:	Range chart
Option B:	Mean chart
Option C:	p-chart
Option D:	c-chart
Q15.	**Capillary action principle is used in _____ testing.**
Option A:	Probe test
Option B:	Dye penetrant testing
Option C:	Ultrasonic testing
Option D:	Eddy current testing
Q16.	**Eddy current testing is useful for detecting _____.**
Option A:	Thickness
Option B:	Roughness
Option C:	Waviness
Option D:	Cracks
Q17.	**Which among the following is a type of direct measuring instrument of roughness?**
Option A:	Micro interferometer
Option B:	Wallace surface dynamometer
Option C:	Profilometer
Option D:	Vernier Height Gauge
Q18.	**Tightness of the specifications for manufacturing the product is _____.**
Option A:	Quality of Design
Option B:	Quality of conformance
Option C:	Quality Assurance
Option D:	Quality control
Q19.	**The following is a line standard of measurement**
Option A:	Measuring tape
Option B:	Slip gauge
Option C:	Micrometer
Option D:	End bars

Q20.	**A data on any characteristic that is measurable is called _____.**
Option A:	Variable data
Option B:	Attribute data
Option C:	Discrete data
Option D:	Countable data
Q21.	**Identify the type of destructive testing**
Option A:	Radiographic test
Option B:	Dye penetrant test
Option C:	Creep test
Option D:	Logical Test
Q22.	**Cost of External failures includes _____.**
Option A:	The cost incurred to prevent quality problems
Option B:	The cost incurred to remedy defects discovered before a product is delivered to the customer
Option C:	The cost incurred to remedy defects discovered by the customers
Option D:	The cost incurred to remedy defects discovered by the manufacturer
Q23.	**On OC curve, producer's risk is denoted by ____.**
Option A:	α
Option B:	β
Option C:	γ
Option D:	σ
Q24.	**If smallest reading on main scale is 1mm and number of divisions on vernier scale are 50, the least count of such vernier is _____.**
Option A:	0.01
Option B:	0.02
Option C:	0.1
Option D:	0.2
Q25.	**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:	index ratio