

ITI Quiz - 28-Mar-2026

12:18 AM

Q. ID: ITISKILL2902HS

March 2026

Answer Key

Duration: 30 Mins

Total Marks: 98

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1. What is the centre of gravity of a sphere?

- A) At the diameter B) At the centre
C) On the circumference D) At the radius

Answer: B) At the centre

2. Which hand book referred by machine engineer?

- A) Mark standard B) Parry's cheorikal
C) Oxford Dictionary D) CRC

Answer: A) Mark standard

3. How much time is allowed normally in soaking zone for a 10mm thick metal piece while hardening?

- A) 20 minutes B) 10 minutes
C) 5 minutes D) 15 minutes

Answer: C) 5 minutes

4. What is the name of the heat treatment process, where the metal is heated and quenched in water or oil?

- A) Hardening B) Annealing
C) Tempering D) Normalising and Tempering

Answer: A) Hardening

5. Which standard schedule of rates to be considered for estimation?

- A) Standard schedule of rates of the average of the last 10 years B) Standard schedule of rates of the current year
C) Standard schedule of rates of the last year D) Standard schedule of rates of the average of last 5 years

Answer: B) Standard schedule of rates of the current year

6. Which state of equilibrium's example is A cone resting on its tip?

- A) Unstable B) Stable
C) Neutral D) Horizontal

Answer: A) Unstable

7. Which one is the most reliable estimate?

- A) Detailed estimate B) Preliminary estimate
C) Cube rate estimate D) Plinth area estimate

Answer: A) Detailed estimate

8. What is a under estimate?

- A) No work started as per estimate B) An estimate is fell short of the actual estimate
C) An estimate perfectly matches with actual D) An estimate is exceeded the actual estimate

Answer: B) An estimate is fell short of the actual estimate

9. What is the total cost of painting of a class room including ceiling, if the size of length is 6m, breadth is 5m and height is 4m. (Painting + labour cost Rs.150/- per sq.m)

- A) Rs.16700/- B) Rs.17700/-
C) Rs.18700/- D) Rs.15000/-

Answer: B) Rs.17700/-

10. Which affects the centre of gravity of the object?

- A) Shape B) Weight
C) Mass D) Density

Answer: C) Mass

11. Which is thermo plastic material?

- A) Butyl rubber B) Vinyl polymers
C) Nylon D) Neoprene

Answer: B) Vinyl polymers

12. Where the centre of gravity of a circle lies?

- A) At its centre B) Any where on its diameter
C) Any where on its radius D) Any where on its circumference

Answer: A) At its centre

13. Which is thermosetting plastic?

- A) Vinyl polymers B) Polystyrenes
C) Celluloid D) Melamine resins

Answer: D) Melamine resins

14. What is the safe stress if the ultimate stress of a material is 35 kg/mm² and factor of safety is 5?

- A) 7 B) 0.7
C) 0.143 D) 1.43

Answer: A) 7

15. What is the centre of gravity of a rectangular body?

- A) Shorter side of rectangle B) At the point of intersection of its diagonals
C) At the corners D) Longer side of rectangle

Answer: B) At the point of intersection of its diagonals

16. What is the ratio between stress and strain?

- A) Poisson's ratio
- B) Young's Modulus
- C) Yield point
- D) Factor of safety

Answer: B) Young's Modulus

17. What is the name of a booklet, the rates of various terms are indicated?

- A) Price bunch
- B) Price bank
- C) Price catalogue
- D) Price tag

Answer: C) Price catalogue

18. What is the minimum permissible area of conductor (U/G cable) for three and half cores cable?

- A) 25 sq.mm
- B) 50 sq.mm
- C) 5 sq.mm
- D) 100 sq.mm

Answer: B) 50 sq.mm

19. What is the name of the structure formed, if a steel is heated for about 723 Degree C?

- A) Austenite
- B) Ferrite
- C) Cementite
- D) Martensite

Answer: A) Austenite

20. What is the name of the point at which all the weight of the body concentrated?

- A) Central point
- B) Initial point
- C) Centroid
- D) Centre of gravity

Answer: D) Centre of gravity

21. Which specification is other than general specification?

- A) Brief specification
- B) Main specification
- C) Detailed specification
- D) Bulk specification

Answer: C) Detailed specification

22. What is the centre of gravity of a semi circle of diameter 12 cm?

- A) 3.25 cm
- B) 2.24 cm
- C) 2.54 cm
- D) 2.75 cm

Answer: C) 2.54 cm

23. Who prepares the cost of estimation?

- A) Draughts man
- B) Operator
- C) Estimator
- D) Quality Inspector

Answer: C) Estimator

24. What is the tensile strain if a force of 3.2 KN is applied to a bar of original length 2800 mm extends the bar by 0.5 mm?

- A) 0.0001968
- B) 0.0001867
- C) 0.0001786
- D) 0.0001687

Answer: C) 0.0001786

25. Which one of the following geometrical shape's centre of gravity lies from its base is 1/3 of its height?

- A) Cone
- B) Square
- C) Rhombus
- D) Triangle

Answer: D) Triangle

26. What is the ratio of shear stress to shear strain?

- A) Yield point
- B) Modulus of elasticity
- C) Modulus of rigidity
- D) Bulk modulus

Answer: C) Modulus of rigidity

27. What is the ratio of ultimate load to area of original cross section?

- A) Young's modulus
- B) Ultimate stress
- C) Factor of safety
- D) Yield point

Answer: B) Ultimate stress

28. Which state of equilibrium's example is, A cone resting on its base?

- A) Stable
- B) Un-stable
- C) Neutral
- D) Both A and B

Answer: A) Stable

29. What is the ratio between ultimate stress to working stress?

- A) Modulus of rigidity
- B) Factor of safety
- C) Bulk modulus
- D) Young's modulus

Answer: B) Factor of safety

30. What is the weight of the iron ball has volume of 250 cc and density 7.5 gm/cc?

- A) 1785 gram
- B) 1975 gram
- C) 1750 gram
- D) 1875 gram

Answer: D) 1875 gram

31. What is the other term used for reference table?

- A) Information Table
- B) Bibliography
- C) Dictionary
- D) Biography

Answer: A) Information Table

32. What is the use of engineering drawing?

- A) For reducing the cost
- B) For colourful appearance
- C) For increasing the cost
- D) For estimation of material and execution of work

Answer: D) For estimation of material and execution of work

33. Which one is related to estimation of work?

- A) Packing
- B) Information table
- C) Bill of material
- D) Hand book

Answer: C) Bill of material

34. What percentage of water absorbed by a good building stone?

- A) Less than 20%
- B) Less than 8%
- C) Less than 10%
- D) Less than 5%

Answer: D) Less than 5%

35. What is the ratio between the change in dimension to its original dimension of the substance?

- A) Stress
- B) Strain
- C) Factor of safety
- D) Poisson's ratio

Answer: B) Strain

36. What is a hand book?

- A) Type of reference work or other collection of instruction
- B) Model book of various works
- C) Design book of latest works
- D) Dictionary of materials

Answer: A) Type of reference work or other collection of instruction

37. Which symbol is used to express change in length?

- A) l
- B) e
- C) Δl
- D) L

Answer: C) Δl

38. What is the centre of gravity of a right circular cone from its base?

- A) $h/5$
- B) $h/3$
- C) $h/2$
- D) $h/4$

Answer: D) $h/4$

39. Which one is the ratio of stress?

- A) Load and direction
- B) Load and time
- C) Load and area
- D) Load and diameter

Answer: C) Load and area

40. What is the total estimation cost for making the component of 8 drilled hole dia 10 mm and 4 Numbers of M6 taps in the plate, if Rs.8/- per drilled holes and Rs.12 per drill and tap?

- A) Rs.112
- B) Rs.102
- C) Rs.100
- D) Rs.110

Answer: A) Rs.112

41. What is the relative permittivity of rubber?

- A) Between 2 and 3
- B) Between 5 and 6
- C) Between 8 and 10
- D) Between 12 and 14

Answer: A) Between 2 and 3

42. Where the centre of gravity of a circle lies?

- A) Any where on its diameter
- B) Any where on its radius
- C) Any where on its circumference
- D) At its centre

Answer: D) At its centre

43. What is the total construction cost of a house construction area of 3000 sq.ft. (cost of construction Rs.2000/- per sq.ft including material and labour)?

- A) Rs.30,000,000
- B) Rs.60,00,000
- C) Rs.6,000,000
- D) Rs.6,00,000

Answer: B) Rs.60,00,000

44. Which one is included in machining estimation sheet?

- A) Advertisement cost
- B) Transport cost
- C) Tax
- D) Raw material cost

Answer: D) Raw material cost

45. What is the centre of gravity of a rectangular body?

- A) At the point of intersection of its diagonals
- B) Shorter side of rectangle
- C) At the corners
- D) Longer side of rectangle

Answer: A) At the point of intersection of its diagonals

46. What is the minimum permissible size of aluminium wire used in estimation?

- A) 3.5 sq.mm
- B) 1.5 sq.mm
- C) 5 sq.mm
- D) 2.5 sq.mm

Answer: B) 1.5 sq.mm

47. What is the weight of a rectangular block of a cast iron of 250cm X 20cm X 8cm (density of cast iron is 7.8 gm/cm³)?

- A) 312 kg
- B) 410 kg
- C) 372 kg
- D) 525 kg

Answer: A) 312 kg

48. What describes the detailed specification for the item of work?

- A) Tax, Transport, Overhead expenses
- B) Colour
- C) Maintenance, Stock, Cost
- D) Quality, Quantity, Workmanship, Method of execution

Answer: D) Quality, Quantity, Workmanship, Method of execution

49. What is the centre of gravity of a solid hemisphere from its base?

- A) $3r/8$
- B) $4r/5$
- C) $r/2$
- D) $3r/4$

Answer: A) $3r/8$

50. What is the total labour charges for a particular wiring work completed in 2 days by one electrician and one helper.(Electrician @ ₹800/day and helper @ Rs 400/day)

- A) Rs. 3000 B) Rs. 1400
C) Rs. 2000 D) Rs. 2400

Answer: D) Rs. 2400

51. Which of the impurity in cast iron makes it hard and brittle?

- A) Phosphorus B) Sulphur
C) Manganese D) Silicon

Answer: B) Sulphur

52. What is the ratio between lateral strain and longitudinal strain?

- A) Young's modulus B) Hooks law
C) Bulk modulus D) Poisson's ratio

Answer: D) Poisson's ratio

53. What is the name of heat treatment process done to relieve strain and stress?

- A) Normalising B) Annealing
C) Hardening D) Tempering

Answer: B) Annealing

54. Which affects the centre of gravity of the object

- A) Density B) Weight
C) Mass D) Shape

Answer: C) Mass

55. What is the formula for bulk modulus?

- A) Shear stress/Shear strain B) Compressive stress/Compressive strain
C) Tensile stress/Tensile strain D) Volumetric stress/Volumetric strain

Answer: D) Volumetric stress/Volumetric strain

56. What is colour of a metal piece when heated to 250 Degree C while doing the tempering process?

- A) Brown B) Pale
C) Blue D) Purple

Answer: A) Brown

57. What is the maximum percentage of stretch of its original length is allowable for elastic materials?

- A) 100% B) 200%
C) 400% D) 300%

Answer: D) 300%

58. What is the estimation of milling cost of a rectangular block size 100 X 80 X60 mm, if cost of the milling is Rs.2/sq.cm?

- A) Rs.572/- B) Rs.652/-
C) Rs.752/- D) Rs.960/-

Answer: C) Rs.752/-

59. What are the various stages of heat treatment?

- A) Heating, Cooling and Quenching B) Quenching, Cooling and Heating
C) Heating, Soaking and Quenching D) Soaking, Quenching and Cooling

Answer: C) Heating, Soaking and Quenching

60. Which heat treatment process is done to refine the grain structure of the steel?

- A) Annealing B) Hardening
C) Tempering D) Normalising

Answer: D) Normalising

61. What is the name of the point at which all the weight of the body concentrated?

- A) Centroid B) Initial point
C) Central point D) Centre of gravity

Answer: D) Centre of gravity

62. What is the centre of gravity of a sphere?

- A) At the radius B) On the circumference
C) At the diameter D) At the centre

Answer: D) At the centre

63. Which IE rules are to be verified on completion of wiring on any new installation?

- A) IE Rules, 1956 B) IE Rules, 1967
C) IE Rules, 1960 D) IE Rules, 1961

Answer: A) IE Rules, 1956

64. What is the total wattage in a room if 2 tube lights of 50W rating, 2 fans of 80W rating, 2 numbers of light points of 60W rating, one fan point of 60W rating and one 3 pin socket of 100W rating?

- A) 640 W B) 340 W
C) 540 W D) 440 W

Answer: C) 540 W

65. Which process produce equilibrium conditions?

- A) Normalising and Tempering B) Normalising and Tempering
C) Annealing and Normalising D) Annealing and Hardening

Answer: C) Annealing and Normalising

66. What is the centre of gravity of a solid hemisphere from its base?

- A) $3r/8$ B) $3r/4$

C) $4r/5$ D) $r/2$

Answer: A) $3r/8$

67. Which force acts on crank shaft?

- A) Torsional stress B) Compressive stress
C) Tensile stress D) Shear stress

Answer: A) Torsional stress

68. What is the term, for the details of materials, brand name, grade of quality, rating of current and voltage etc.?

- A) Specification of materials B) Price catalogue
C) Drawing D) Raw materials

Answer: A) Specification of materials

69. What are the various types of heat treatment processes?

- A) Normalising, Heating, Cooling and Painting B) Annealing, Normalising, Hardening and Tempering
C) Hardening, Soaking, Painting and Packing D) Tempering, Cooling, Packing and Solling

Answer: B) Annealing, Normalising, Hardening and Tempering

70. What is the centre of gravity of a right circular cone from its base?

- A) $h/5$ B) $h/3$
C) $h/4$ D) $h/2$

Answer: C) $h/4$

71. Which is elastic material?

- A) Celluloid B) Nylon
C) Polycarbonates D) Polystyrenes

Answer: B) Nylon

72. What is the other term of pocket reference in engineering works?

- A) Good book B) Hand book
C) New book D) Hand tool

Answer: B) Hand book

73. What is an over estimate?

- A) When an estimate is fell short of the actual estimate B) No work started as per estimate
C) When an estimate perfectly matches the actual estimate D) When an estimate is exceeded to actual estimate

Answer: D) When an estimate is exceeded to actual estimate

74. What is the centre of gravity of a semi circle of diameter 12 cm?

- A) 2.24 cm B) 2.75 cm
C) 3.25 cm D) 2.54 cm

Answer: D) 2.54 cm

75. Which is a kind of surface hardening process?

- A) Nitriding B) Cementide
C) Tempering D) Ferrite

Answer: A) Nitriding

76. What is the term used for the method of calculating various quantities and expenditure on a particular job or process?

- A) Estimation B) Specification
C) Drawing D) Plan

Answer: A) Estimation

77. What is the ratio of change in length to original length?

- A) Poisson's ratio B) Volumetric strain
C) Lateral strain D) Linear strain

Answer: D) Linear strain

78. What is the process of heat treatment?

- A) The process of heating and cooling to change the structure and properties B) The process of heating and bending as per our requirement
C) The process of cooling to measure the dimensions D) The process of heating to change the dimensions

Answer: A) The process of heating and cooling to change the structure and properties

79. What is the unit of strain?

- A) Newton/metre² B) Kg/cm²
C) No unit D) Metre

Answer: C) No unit

80. How much strain is developed in an iron rod of 1 metre length gets elongated by 1 cm, if a force of 100 kg is applied at one end?

- A) 0.0001 B) 0.01
C) 0.001 D) 0.1

Answer: B) 0.01

81. Which authority publishes schedule of rates?

- A) Government department B) Individual
C) Corporate D) Partnership firm

Answer: A) Government department

82. What is the tensile stress if a square rod of 10 mm side is tested for a tensile load of 1000 kg?

- A) 1 kg/mm^2 B) 1000 kg/mm^2
C) 10 kg/mm^2 D) 100 kg/mm^2

Answer: C) 10 kg/mm^2

83. What is the young's modulus if a wire of 2m long, 0.8 mm² in cross section increases its length by 1.6 mm on suspension of 8 kg weight from it?

- A) 1.25 kg/mm² B) 12.5 kg/mm²
C) 125 kg/mm² D) 12500 kg/mm²

Answer: D) 12500 kg/mm²

84. What is the term used for maximum stress attained by a material before rupture?

- A) Working stress B) Ultimate stress
C) Tensile stress D) Compressive stress

Answer: B) Ultimate stress

85. Which process steel is heated in a carbonaceous atmosphere for the penetration of carbon?

- A) Nitriding B) Induction hardening
C) Carburising D) Case hardening

Answer: C) Carburising

86. Which law states that within elastic limit stress is directly proportional to strain?

- A) Hooks law B) Newtons law
C) Joules law D) Charles law

Answer: A) Hooks law

87. Which state of equilibrium's example is A cone resting on its tip?

- A) Unstable B) Neutral
C) Horizontal D) Stable

Answer: A) Unstable

88. What force will be required to punch a hole of 10 mm dia in a 1 mm thick plate, if the allowable shear stress is 50N/mm²? ($\pi = 22/7$)

- A) 1577 N B) 1575 N
C) 1757 N D) 1571.4 N

Answer: D) 1571.4 N

89. Which is the suitable nitriding process for all alloyed and unalloyed steels?

- A) Nitriding in salt-bath B) Gas nitriding
C) Silver nitriding D) Nitriding in Quenching tank

Answer: A) Nitriding in salt-bath

90. What cables are used for 132KV lines?

- A) High tension B) Extra super voltage
C) Extra high tension D) Super tension

Answer: B) Extra super voltage

91. What is a total cost?

- A) Machining cost only B) Raw material cost only
C) Raw materials cost and machining cost D) Advertisement cost only

Answer: C) Raw materials cost and machining cost

92. What is the purpose of tempering a steel?

- A) To remove the ductility B) To increase the brittleness
C) To increase the hardness D) To reduce the brittleness

Answer: D) To reduce the brittleness

93. What is the total cost to assemble 10 personal computer systems, spares cost as given for one system: 1 TB hard disc Rs.4500/-, Intel i3 mother board Rs.7000/-, SMPS Rs.2500/-, monitor Rs.6000/-, keyboard Rs.1000/-, other material cost (Switches, USB, Cabl

- A) Rs.265000/- B) Rs.275000/-
C) Rs.250000/- D) Rs.225000/-

Answer: B) Rs.275000/-

94. Which one of the following geometrical shapes centre of gravity lies from its base is 1/3 of its height?

- A) Triangle B) Rhombus
C) Cone D) Square

Answer: A) Triangle

95. What is the main factor to be considered while preparing a detailed estimate?

- A) Quantity, availability and transportation of materials B) Shape of material
C) Brand of the materials D) Location of material

Answer: A) Quantity, availability and transportation of materials

96. Which force acts on rivets?

- A) Compressive force B) Shear force
C) Tensile force D) Bending force

Answer: B) Shear force

97. Which state of equilibrium's example is, A cone resting on its base?

- A) Both A and B B) Stable
C) Un-stable D) Neutral

Answer: B) Stable

98. What is the total cost of Air-conditioners installed in a college, 40 class room-each 1 Air-conditioner, Computer lab 5 Air- conditioners and conference hall 5 Air-conditioners (Cost of one air conditioner Rs.30000/- including installation)?

- A) Rs. 20 lakhs B) Rs. 12 lakhs
C) Rs. 15 lakhs D) Rs.10 lakhs

Answer: C) Rs. 15 lakhs