

ITI Quiz - 31-Mar-2026

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Q. ID: ITISKILL3515UW

March 2026

Question Paper

Duration: 30 Mins

Total Marks: 98

ID: ITISKILL3515UW

Student Name: _____ Roll No: _____

1. 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.10 lakhs
- B) Rs. 12 lakhs
- C) Rs. 20 lakhs
- D) Rs. 15 lakhs

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

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

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

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

4. 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/mm^2 ? ($\pi = 22/7$)

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

5. 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) Drawing
- C) Raw materials
- D) Price catalogue

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

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

7. 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 to change the dimensions
- C) The process of heating and bending as per our requirement
- D) The process of cooling to measure the dimensions

8. What is the term used for the method of calculating

various quantities and expenditure on a particular job or process?

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

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

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

10. 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) 440 W
- B) 540 W
- C) 640 W
- D) 340 W

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

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

12. Which is thermo plastic material?

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

13. Which affects the centre of gravity of the object

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

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

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

15. Which is a kind of surface hardening process?

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

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

- A) Cone
C) Square

- B) Rhombus
D) Triangle

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

26. What is the unit of strain?

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

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

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

28. 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.18700/-
C) Rs.17700/-
B) Rs.15000/-
D) Rs.16700/-

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

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

30. 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. 2000
C) Rs. 2400
B) Rs. 1400
D) Rs. 3000

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

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

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

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

33. 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) 125 kg/mm²
C) 12.5 kg/mm²
B) 1.25 kg/mm²
D) 12500 kg/mm²

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

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

35. 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/-
C) Rs.250000/-
- B) Rs.275000/-
D) Rs.225000/-
- 36.** Which hand book referred by machine engineer?
- A) Parry's cheorikal
C) Oxford Dictionary
- B) CRC
D) Mark standard
- 37.** Which symbol is used to express change in length?
- A) delta l
C) L
- B) l
D) e
- 38.** What is the other term used for reference table?
- A) Information Table
C) Dictionary
- B) Bibliography
D) Biography
- 39.** What is the other term of pocket reference in engineering works?
- A) Good book
C) Hand tool
- B) New book
D) Hand book
- 40.** Which authority publishes schedule of rates?
- A) Individual
C) Partnership firm
- B) Corporate
D) Government department
- 41.** What is the purpose of tempering a steel?
- A) To remove the ductility
C) To increase the hardness
- B) To reduce the brittleness
D) To increase the brittleness
- 42.** Which one is the ratio of stress?
- A) Load and diameter
C) Load and time
- B) Load and area
D) Load and direction
- 43.** What are the various stages of heat treatment?
- A) Soaking, Quenching and Cooling
C) Quenching, Cooling and Heating
- B) Heating, Soaking and Quenching
D) Heating, Cooling and Quenching
- 44.** What is the ratio between stress and strain?
- A) Factor of safety
C) Youngs Modulus
- B) Yield point
D) Poisson's ratio
- 45.** Which force acts on rivets?
- A) Shear force
C) Bending force
- B) Tensile force
D) Compressive force
- 46.** What is the name of the point at which all the weight of the body concentrated?
- A) Centroid
B) Centre of gravity

- C) Initial point
D) Central point
- 47.** What is the centre of gravity of a right circular cone from its base?
- A) $h/5$
C) $h/2$
- B) $h/3$
D) $h/4$
- 48.** What is the formula for bulk modulus?
- A) Volumetric stress/Volumetric strain
C) Compressive stress/Compressive strain
- B) Shear stress/Shear strain
D) Tensile stress/Tensile strain
- 49.** Which is elastic material?
- A) Nylon
C) Celluloid
- B) Polycarbonates
D) Polystyrenes
- 50.** What is the centre of gravity of a rectangular body?
- A) Longer side of rectangle
C) Shorter side of rectangle
- B) At the point of intersection of its diagonals
D) At the corners
- 51.** Which one of the following geometrical shapes centre of gravity lies from its base is $1/3$ of its height?
- A) Cone
C) Triangle
- B) Rhombus
D) Square
- 52.** What is a total cost?
- A) Raw materials cost and machining cost
C) Machining cost only
- B) Advertisement cost only
D) Raw material cost only
- 53.** Which standard schedule of rates to be considered for estimation?
- A) Standard schedule of rates of the current year
C) Standard schedule of rates of the average of the last 10 years
- B) Standard schedule of rates of the average of last 5 years
D) Standard schedule of rates of the last year
- 54.** What is the tensile stress if a square rod of 10 mm side is tested for a tensile load of 1000 kg?
- A) 10 kg/mm^2
C) 100 kg/mm^2
- B) 1000 kg/mm^2
D) 1 kg/mm^2
- 55.** 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) 0.0001786
C) 0.0001867
- B) 0.0001687
D) 0.0001968

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

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

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

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

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

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

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

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

60. Who prepares the cost of estimation?

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

61. 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 |

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

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

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

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

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

- | | |
|--------------------|---------------------|
| A) Yield point | B) Factor of safety |
| C) Ultimate stress | D) Youngs modulus |

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

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

66. 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) 410 kg | B) 372 kg |
| C) 312 kg | D) 525 kg |

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

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

68. What is the use of engineering drawing?

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

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

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

70. What is a under estimate?

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

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

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

72. 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.6,00,000 | B) Rs.30,00,000 |
| C) Rs.6,000,000 | D) Rs.60,00,000 |

73. 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.752/- | B) Rs.572/- |
| C) Rs.960/- | D) Rs.652/- |

74. Which one is related to estimation of work?

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

75. Which process produce equilibrium conditions?

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

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

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

77. Which is thermosetting plastic?

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

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

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

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

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

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

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

81. Which one is the most reliable estimate?

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

82. Which one is included in machining estimation sheet?

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

83. 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 |

84. Which force acts on crank shaft?

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

85. What cables are used for 132KV lines?

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

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

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

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

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

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

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

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

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

90. 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.110 | B) Rs.102 |
| C) Rs.100 | D) Rs.112 |

91. Which specification is other than general specification?

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

92. What is the relative permittivity of rubber?

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

93. 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) 0.001 |
| C) 0.1 | D) 0.01 |

94. What is an over estimate?

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

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

- A) Newtons law
- C) Hooks law

- B) Joules law
- D) Charles law

96. What is a hand book?

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

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

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

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

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