

Duration: 60 Mins

Total Marks: 78

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1. Which one is the most reliable estimate?

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

Answer: D) Detailed estimate

2. Which one of the following geometrical shapes centre of gravity lies from its base is $\frac{1}{3}$ of its height?

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

Answer: B) Triangle

3. 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) 540 W B) 640 W
C) 340 W D) 440 W

Answer: A) 540 W

4. What is the ratio between stress and strain?

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

Answer: B) Youngs Modulus

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

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

Answer: D) Poisson's ratio

6. What is the youngs 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 B) 12.5 kg/mm²
C) 1.25 kg/mm² D) 12500 kg/mm²

Answer: D) 12500 kg/mm²

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

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

Answer: B) Linear strain

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

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

Answer: A) Ultimate stress

9. What cables are used for 132KV lines?

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

Answer: D) Extra super voltage

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

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

Answer: B) Centre of gravity

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

- A) 1000 kg/mm² B) 1 kg/mm²
C) 100 kg/mm² D) 10 kg/mm²

Answer: D) 10 kg/mm²

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

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

Answer: A) Stable

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

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

Answer: B) At the centre

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

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

Answer: B) Less than 5%

15. 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. 1400
- B) Rs. 2000
- C) Rs. 2400
- D) Rs. 3000

Answer: C) Rs. 2400

16. Which specification is other than general specification?

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

Answer: D) Detailed specification

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

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

Answer: B) $h/4$

18. 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) 525 kg
- B) 372 kg
- C) 410 kg
- D) 312 kg

Answer: D) 312 kg

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

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

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

20. 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) 0.0001687
- B) 0.0001786
- C) 0.0001867
- D) 0.0001968

Answer: B) 0.0001786

21. 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.100
- C) Rs.110
- D) Rs.102

Answer: A) Rs.112

22. Which force acts on rivets?

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

Answer: D) Shear force

23. What is a under estimate?

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

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

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

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

Answer: C) Hooks law

25. Which force acts on crank shaft?

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

Answer: B) Torsional stress

26. Which is elastic material?

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

Answer: D) Nylon

27. Which affects the centre of gravity of the object

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

Answer: B) Mass

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

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

Answer: A) $h/4$

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

- A) Δl
- B) e
- C) l
- D) L

Answer: A) Δl

30. Which authority publishes schedule of rates?

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

Answer: A) Government department

31. 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.225000/-
- B) Rs.265000/-
- C) Rs.275000/-
- D) Rs.250000/-

Answer: C) Rs.275000/-

32. 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) 0.1
- C) 0.001
- D) 0.01

Answer: D) 0.01

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

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

Answer: C) 1.5 sq.mm

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

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

Answer: C) Factor of safety

35. 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. 15 lakhs
- B) Rs. 20 lakhs
- C) Rs. 12 lakhs
- D) Rs.10 lakhs

Answer: A) Rs. 15 lakhs

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

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

Answer: C) Sulphur

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

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

Answer: B) Unstable

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

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

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

39. Which is thermosetting plastic?

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

Answer: D) Melamine resins

40. 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/-
- B) Rs.17700/-
- C) Rs.16700/-
- D) Rs.15000/-

Answer: B) Rs.17700/-

41. What is a total cost?

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

Answer: C) Raw materials cost and machining cost

42. What is the use of engineering drawing?

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

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

43. Which one is included in machining estimation sheet?

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

Answer: A) Raw material cost

44. What is the relative permittivity of rubber?

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

Answer: D) Between 2 and 3

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

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

Answer: D) 1875 gram

46. What is a hand book?

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

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

47. Which one is the ratio of stress?

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

Answer: C) Load and area

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

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

Answer: C) Information Table

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

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

Answer: C) 7

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

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

Answer: A) Price catalogue

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

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

Answer: C) Strain

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

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

Answer: C) Modulus of rigidity

53. 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.652/-
- B) Rs.572/-
- C) Rs.752/-
- D) Rs.960/-

Answer: C) Rs.752/-

54. 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.60,00,000
- B) Rs.6,00,000
- C) Rs.6,000,000
- D) Rs.30,000,000

Answer: A) Rs.60,00,000

55. 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

56. Who prepares the cost of estimation?

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

Answer: B) Estimator

57. Which hand book referred by machine engineer?

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

Answer: C) Mark standard

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

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

Answer: C) $3r/8$

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

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

Answer: B) IE Rules, 1956

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

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

Answer: C) At its centre

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

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

Answer: D) 2.54 cm

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

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

Answer: A) Mass

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

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

Answer: B) Hand book

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

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

Answer: C) Quantity, availability and transportation of materials

65. Which is thermo plastic material?

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

Answer: C) Vinyl polymers

66. Which one is related to estimation of work?

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

Answer: D) Bill of material

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

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

Answer: D) Ultimate stress

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

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

Answer: A) 50 sq.mm

69. What is an over estimate?

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

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

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

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

Answer: D) 300%

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

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

Answer: D) At its centre

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

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

Answer: A) Centre of gravity

73. What is the unit of strain?

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

Answer: C) No unit

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

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

Answer: A) Estimation

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

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

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

76. 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

77. What is the formula for bulk modulus?

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

Answer: A) Volumetric stress/Volumetric strain

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

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

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