

Duration: 90 Mins

Total Marks: 90

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1. 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 B) 1000 kg/mm^2
C) 100 kg/mm^2 D) 1 kg/mm^2

Answer: A) 10 kg/mm^2

2. 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) Longer side of rectangle D) At the corners

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

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

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

Answer: C) Stable

4. Which authority publishes schedule of rates?

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

Answer: B) Government department

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

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

Answer: B) Unstable

6. Which force acts on crank shaft?

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

Answer: C) Torsional stress

7. What cables are used for 132KV lines?

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

Answer: C) Extra super voltage

8. 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

50 N/mm^2 (Pi = $22/7$)

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

Answer: A) 1571.4 N

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

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

Answer: A) 1875 gram

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

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

Answer: B) Stable

11. Which is thermosetting plastic?

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

Answer: C) Melamine resins

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

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

Answer: B) Hooks law

13. 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/cm^3)?

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

Answer: A) 312 kg

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

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

Answer: C) 300%

15. Which is thermo plastic material?

- A) Neoprene B) Vinyl polymers

C) Nylon

D) Butyl rubber

Answer: B) Vinyl polymers

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

A) Shape of material

B) Location of material

C) Quantity, availability and transportation of materials

D) Brand of the materials

Answer: C) Quantity, availability and transportation of materials

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

A) Shorter side of rectangle

B) Longer side of rectangle

C) At the corners

D) At the point of intersection of its diagonals

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

18. Which one is the ratio of stress?

A) Load and diameter

B) Load and area

C) Load and direction

D) Load and time

Answer: B) Load and area

19. What is a hand book?

A) Model book of various works

B) Design book of latest works

C) Type of reference work or other collection of instruction

D) Dictionary of materials

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

20. What is a total cost?

A) Raw material cost only

B) Advertisement cost only

C) Raw materials cost and machining cost

D) Machining cost only

Answer: C) Raw materials cost and machining cost

21. Which one is the most reliable estimate?

A) Plinth area estimate

B) Cube rate estimate

C) Detailed estimate

D) Preliminary estimate

Answer: C) Detailed estimate

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

A) Young's modulus

B) Factor of safety

C) Yield point

D) Ultimate stress

Answer: D) Ultimate stress

23. What is the safe stress if the ultimate stress of a material is 35 kg/mm^2 and factor of safety is 5?

A) 0.143

B) 7

C) 1.43

D) 0.7

Answer: B) 7

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

A) Factor of safety

B) Young's modulus

C) Bulk modulus

D) Modulus of rigidity

Answer: A) Factor of safety

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

A) Annealing

B) Normalising

C) Tempering

D) Hardening

Answer: A) Annealing

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

A) Price bank

B) Price catalogue

C) Price bunch

D) Price tag

Answer: B) Price catalogue

27. 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

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

A) Lateral strain

B) Poisson's ratio

C) Linear strain

D) Volumetric strain

Answer: C) Linear strain

29. 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.6,00,000

C) Rs.60,00,000

D) Rs.6,000,000

Answer: C) Rs.60,00,000

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

A) Modulus of elasticity

B) Modulus of rigidity

C) Yield point

D) Bulk modulus

Answer: B) Modulus of rigidity

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

A) Horizontal

B) Unstable

C) Neutral

D) Stable

Answer: B) Unstable

32. Which affects the centre of gravity of the object

A) Density

B) Mass

C) Soaking, Quenching and Cooling D) Quenching, Cooling and Heating

Answer: A) Heating, Soaking and Quenching

49. Which is elastic material?

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

Answer: D) Nylon

50. 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.250000/-
C) Rs.225000/- D) Rs.275000/-

Answer: D) Rs.275000/-

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

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

Answer: A) Less than 5%

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

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

Answer: B) At its centre

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

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

Answer: D) Hand book

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

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

Answer: A) Ultimate stress

55. 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. 2400 B) Rs. 3000
C) Rs. 1400 D) Rs. 2000

Answer: A) Rs. 2400

56. 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

Answer: B) 50 sq.mm

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

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

Answer: D) Specification of materials

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

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

Answer: C) At the centre

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

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

Answer: D) 1.5 sq.mm

60. What is the relative permittivity of rubber?

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

Answer: D) Between 2 and 3

61. 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) 340 W
C) 440 W D) 640 W

Answer: A) 540 W

62. 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

Answer: D) Rs.112

63. Who prepares the cost of estimation?

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

Answer: B) Estimator

64. Which one is related to estimation of work?

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

Answer: B) Bill of material

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

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

Answer: A) Poisson's ratio

66. 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 last year
C) Standard schedule of rates of the average of last 5 years D) Standard schedule of rates of the current year

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

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

- A) delta l B) L
C) l D) e

Answer: A) delta l

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

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

Answer: A) Mass

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

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

Answer: A) $3r/8$

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

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

Answer: A) Strain

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

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

Answer: D) At its centre

72. 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) When an estimate perfectly matches the actual estimate D) No work started as per estimate

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

73. What is a under estimate?

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

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

74. Which force acts on rivets?

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

Answer: C) Shear force

75. What is the process of heat treatment?

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

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

76. 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) 0.0001687 D) 0.0001786

Answer: D) 0.0001786

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

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

Answer: B) 2.54 cm

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

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

Answer: B) $3r/8$

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

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

Answer: A) At the centre

80. Which hand book referred by machine engineer?

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

Answer: A) Mark standard

81. What is the use of engineering drawing?

- A) For increasing the cost B) For colourful appearance

