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Score: 31/50 (62.00%)

Code: 2117

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

A) Initial point

B) Centre of gravity (Correct)

C) Centroid

D) Central point

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

A) At its centre (Correct)

B) Any where on its radius

C) Any where on its circumference

D) Any where on its diameter

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

A) $4r/5$

B) $3r/8$ (Correct)

C) $3r/4$

D) $r/2$

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

A) At the centre (Correct)

B) On the circumference

C) At the diameter

D) At the radius

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

A) Stable

B) Neutral

C) Unstable (Correct)

D) Horizontal

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

A) Square

B) Rhombus

C) Triangle (Correct)

D) Cone

7. Which is elastic material?

A) Nylon (Correct)

B) Polystyrenes

C) Celluloid

D) Polycarbonates

8. Which is thermo plastic material?

A) Butyl rubber

B) Nylon (Incorrect)

C) Neoprene

D) Vinyl polymers

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

A) 100%

B) 200%

C) 300% (Correct)

D) 400%

10. What is the ratio between the change in dimension to its

original dimension of the substance?

A) Stress

B) Strain (Correct)

C) Poisson's ratio

D) Factor of safety

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

A) L

B) Δl (Correct)

C) I

D) e

12. Which one is the ratio of stress?

A) Load and area (Correct)

B) Load and direction

C) Load and diameter

D) Load and time

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

A) Newtons law

B) Hooks law (Correct)

C) Joules law

D) Charles law

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

A) Factor of safety

B) Yield point

C) Ultimate stress (Correct)

D) Youngs modulus

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

A) Modulus of elasticity
(Incorrect)

B) Modulus of rigidity

C) Bulk modulus

D) Yield point

16. Which is thermosetting plastic?

A) Vinyl polymers

B) Polystyrenes

C) Celluloid

D) Melamine resins (Correct)

17. 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) 0.1

B) 0.01 (Correct)

C) 0.001

D) 0.0001

18. 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) 0.7

C) 1.43

D) 7 (Correct)

19. Which hand book referred by machine engineer?

A) Parry's cheorikal

B) CRC

C) Mark standard

D) Oxford Dictionary
(Incorrect)

20. What is a hand book?

A) Model book of various works (Incorrect)

B) Type of reference work or other collection of instruction

C) Design book of latest works

D) Dictionary of materials

21. 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 the last 10 years

C) Standard schedule of rates of the average of last 5 years (Incorrect)

D) Standard schedule of rates of the current year

22. Which authority publishes schedule of rates?

A) Individual

B) Corporate

C) Partnership firm

D) Government department (Correct)

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

A) Price bank

B) Price bunch (Incorrect)

C) Price tag

D) Price catalogue

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

A) Drawing

B) Specification of materials (Correct)

C) Raw materials

D) Price catalogue

25. What is the use of engineering drawing?

A) For estimation of material and execution of work

B) For colourful appearance

C) For reducing the cost (Incorrect)

D) For increasing the cost

26. What is a total cost?

A) Raw material cost only (Incorrect)

B) Machining cost only

C) Raw materials cost and machining cost

D) Advertisement cost only

27. Which one is included in machining estimation sheet?

A) Transport cost

B) Advertisement cost

C) Raw material cost (Correct)

D) Tax

28. 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 (Correct)

C) 5 sq.mm

D) 100 sq.mm

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

A) Quality, Quantity, Workmanship, Method of execution

B) Colour

C) Tax, Transport, Overhead expenses

D) Maintenance, Stock, Cost (Incorrect)

30. What cables are used for 132KV lines?

A) High tension

B) Super tension

C) Extra high tension

D) Extra super voltage (Correct)

31. Which specification is other than general specification?

A) Brief specification

B) Bulk specification

C) Detailed specification

D) Main specification (Incorrect)

32. 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.102

B) Rs.100

C) Rs.112 (Correct)

D) Rs.110

33. 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.752/- (Correct)

C) Rs.572/-

D) Rs.960/-

34. 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) 340 W

B) 440 W

C) 540 W

D) 640 W (Incorrect)

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

A) Initial point

B) Centre of gravity (Correct)

C) Centroid

D) Central point

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

A) At its centre (Correct)

B) Any where on its radius

C) Any where on its circumference

D) Any where on its diameter

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

A) $h/2$

B) $h/3$ (Incorrect)

C) $h/4$

D) $h/5$

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

A) Longer side of rectangle

B) Shorter side of rectangle

C) At the point of intersection of its diagonals

D) At the corners (Incorrect)

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

A) At the centre (Correct)

B) On the circumference

C) At the diameter

D) At the radius

40. What are the various stages of heat treatment?

A) Heating, Cooling and Quenching (Incorrect)

B) Quenching, Cooling and Heating

C) Heating, Soaking and Quenching

D) Soaking, Quenching and Cooling

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

A) Cementite

B) Austenite

C) Martensite (Incorrect)

D) Ferrite

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

A) Annealing (Incorrect)

B) Normalising

C) Hardening

D) Tempering

43. Which process produce equilibrium conditions?

A) Annealing and Hardening

B) Normalising and Tempering

C) Annealing and Normalising (Correct)

D) Normalising and Tempering

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

A) Case hardening

B) Nitriding

C) Carburising (Correct)

D) Induction hardening

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

A) Silver nitriding (Incorrect)

B) Nitriding in salt-bath

C) Nitriding in Quenching tank

D) Gas nitriding

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

A) Hardening (Correct)

B) Normalising and Tempering

C) Annealing

D) Tempering

47. Which is a kind of surface hardening process?

A) Cementite

B) Ferrite

C) Nitriding (Correct)

D) Tempering

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

A) 5 minutes

B) 10 minutes

C) 15 minutes (Incorrect)

D) 20 minutes

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

A) Blue

B) Brown (Correct)

C) Purple

D) Pale

50. What is the purpose of tempering a steel?

A) To reduce the brittleness

B) To remove the ductility

C) To increase the hardness

D) To increase the brittleness (Incorrect)