

Duration: 90 Mins

Total Marks: 58

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Student Name: _____ Roll No: _____

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

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

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

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

3. Which force acts on rivets?

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

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

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

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

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

6. Who prepares the cost of estimation?

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

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

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

8. Which hand book referred by machine engineer?

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

9. 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

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

- A) L B) e
C) l D) Δl

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

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

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

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

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

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

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

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

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

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

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

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

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

A) $3r/8$
C) $3r/4$

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

A) Hand book
C) Hand tool

B) New book
D) Good book

18. What is a hand book?

A) Model book of various works
C) Type of reference work or other collection of instruction

B) Design book of latest works
D) Dictionary of materials

19. Which one is related to estimation of work?

A) Packing
C) Hand book

B) Bill of material
D) Information table

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

A) Tensile stress
C) Working stress

B) Compressive stress
D) Ultimate stress

21. 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
C) 0.001

B) 0.01
D) 0.0001

22. What is an over estimate?

A) When an estimate is exceeded to actual estimate
C) When an estimate is fell short of the actual estimate

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

23. 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

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

A) Unstable
C) Stable

B) Neutral
D) Horizontal

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

A) IE Rules, 1960
C) IE Rules, 1956

B) IE Rules, 1961
D) IE Rules, 1967

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

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

A) 3.25 cm
C) 2.24 cm

B) 2.75 cm
D) 2.54 cm

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

A) Modulus of rigidity
C) Bulk modulus

B) Yield point
D) Modulus of elasticity

29. 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) 12500 kg/mm²
C) 125 kg/mm²

B) 1.25 kg/mm²
D) 12.5 kg/mm²

30. Which force acts on crank shaft?

A) Shear stress
C) Torsional stress

B) Tensile stress
D) Compressive stress

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

A) Bulk modulus
C) Hooks law

B) Young's modulus
D) Poisson's ratio

32. Which one is included in machining estimation sheet?

A) Raw material cost
C) Advertisement cost

B) Transport cost
D) Tax

33. Which authority publishes schedule of rates?

A) Corporate
C) Government department

B) Individual
D) Partnership firm

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

A) Shape
C) Weight

B) Density
D) Mass

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

A) Factor of safety
C) Young's modulus

B) Modulus of rigidity
D) Bulk modulus

36. What is the unit of strain?

A) No unit
C) Newton/metre²

B) Metre
D) Kg/cm²

37. 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

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

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

39. Which is thermosetting plastic?

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

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

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

41. Which one is the ratio of stress?

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

42. What is the use of engineering drawing?

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

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

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

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

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

45. 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

46. What is the ratio between stress and strain?

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

47. 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 ? ($P_i = 22/7$)

- A) 1575 N
- C) 1757 N

- B) 1577 N
- D) 1571.4 N

48. 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/mm^2
- B) 1 kg/mm^2
- C) 100 kg/mm^2
- D) 10 kg/mm^2

49. Which is elastic material?

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

50. What is the formula for bulk modulus?

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

51. 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

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

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

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

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

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

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

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

56. Which is thermo plastic material?

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

57. 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

58. Which one is the most reliable estimate?

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