

Duration: 180 Mins

Total Marks: 58

ID: ITISKILL3748EP

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| Student Name: _____ | Roll No: _____ |
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1. Which is thermosetting plastic?

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

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

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

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

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

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

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

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

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

6. Which one is related to estimation of work?

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

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

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

8. What is a hand book?

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

9. 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

10. 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

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

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

12. 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) 1 kg/mm^2
C) 1000 D) 100
 kg/mm^2 kg/mm^2

13. Who prepares the cost of estimation?

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

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

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

15. 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

16. Which is thermo plastic material?

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

17. What describes the detailed specification for the item of

work?

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

18. Which force acts on crank shaft?

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

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

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

20. What is the formula for bulk modulus?

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

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

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

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

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

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

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

24. What is a under estimate?

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

25. 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
D) Standard schedule of rates of the current year

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

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

27. What is the ratio between stress and strain?

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

28. 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) Plan
D) Drawing

29. Which one is the most reliable estimate?

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

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

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

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

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

32. 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

33. Which force acts on rivets?

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

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

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

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

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

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

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

37. What is an over estimate?

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

38. Which one is the ratio of stress?

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

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

- A) Δl
B) e
C) L
D) l

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

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

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

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

42. Which authority publishes schedule of rates?

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

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

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

44. Which one is included in machining estimation sheet?

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

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

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

46. Which hand book referred by machine engineer?

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

47. 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) 0.0001867
B) 0.0001687
C) 0.0001968
D) 0.0001786

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

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

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

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

50. 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) 12500 kg/mm²
D) 1.25 kg/mm²

51. What is a total cost?

- A) Machining cost only
B) Advertisement cost only
C) Raw material cost only
D) Raw materials cost and machining 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) Poisson's ratio
D) Stress

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

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

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

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

55. What is the unit of strain?

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

56. Which is elastic material?

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

57. 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
 - C) 0.0001
 - D) 0.001
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58. 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) 1575 N
 - B) 1757 N
 - C) 1577 N
 - D) 1571.4 N
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