

# Trinity, College udhyavara udupi

## ITI QuizW/C 2 - 04-Apr-2026 09:28 AM

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40.00% 20 / 50

Student Name	Srujan	Access Code	0816
Attempt No.	#1	Completion Time	11:09 AM
Rank	#1	Total Questions	50

20 SCORE

50 MAX MARKS

20 CORRECT

30 INCORRECT

### Answer Review

Q1 **CORRECT** Which affects the centre of gravity of the object?

A. Weight

B. Mass

C. Density

D. Shape

Q2 **INCORRECT** 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

Q3 **INCORRECT** Where the centre of gravity of a circle lies?

A. At its centre

B. Any where on its radius

C. Any where on its circumference

D. Any where on its diameter

Q4 **CORRECT** What is the centre of gravity of a right circular cone from its base?

A.  $h/2$

B.  $h/3$

C.  $h/4$

D.  $h/5$

Q5 **CORRECT** 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

Q6 **INCORRECT** What is the centre of gravity of a solid hemisphere from its base?

A.  $4r/5$

B.  $3r/8$

C.  $3r/4$

D.  $r/2$

Q7 **INCORRECT** Which state of equilibrium's example is A cone resting on its tip?

A. Stable

B. Neutral

C. Unstable

D. Horizontal

Q8 **INCORRECT** Which one of the following geometrical shapes centre of gravity lies from its base is  $\frac{1}{3}$  of its height?

A. Square

B. Rhombus

C. Triangle

D. Cone

Q9 **INCORRECT** Which state of equilibrium's example is, A cone resting on its base?

A. Un-stable

B. Neutral

C. Stable

D. Bothe A and B

Q10 **INCORRECT** What is the centre of gravity of a semi circle of diameter 12 cm?

A. 2.24 cm

B. 2.54 cm

C. 3.25 cm

D. 2.75 cm

Q11 **INCORRECT** Which is elastic material?

A. Nylon

B. Polystyrenes

C. Celluloid

D. Polycarbonates

Q12 **CORRECT** Which is thermo plastic material?

A. Butyl rubber

B. Nylon

C. Neoprene

D. Vinyl polymers

Q13 **INCORRECT** What is the maximum percentage of stretch of its original length is allowable for elastic materials?

A. 100%

B. 200%

C. 300%

D. 400%

Q14 **INCORRECT** What is the ratio between the change in dimension to its original dimension of the substance?

A. Stress

B. Strain

C. Poisson's ratio

D. Factor of safety

Q15 **INCORRECT** What is the unit of strain?

A.  $\text{Kg/cm}^2$

B.  $\text{Newton/metre}^2$

C. Metre

D. No unit

Q16 **INCORRECT** What is the ratio of change in length to original length?

A. Linear strain

B. Lateral strain

C. Volumetric strain

D. Poisson's ratio

Q17 **INCORRECT** What is the ratio between lateral strain and longitudinal strain?

A. Hooks law

B. Young's modulus

C. Bulk modulus

D. Poisson's ratio

Q18 **INCORRECT** Which symbol is used to express change in length?

A. L

B.  $\Delta l$

C. l

D. e

Q19 **INCORRECT** Which one is the ratio of stress?

A. Load and area

B. Load and direction

C. Load and diameter

D. Load and time

Q20 **INCORRECT** Which force acts on rivets?

A. Tensile force

B. Compressive force

C. Shear force

D. Bending force

Q21 **CORRECT** 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

Q22 **INCORRECT** Which law states that within elastic limit stress is directly proportional to strain?

A. Newtons law

B. Hooks law

C. Joules law

D. Charles law

Q23 **CORRECT** What is the term used for maximum stress attained by a material before rupture?

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

Q24 **CORRECT** What is the ratio between ultimate stress to working stress?

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

Q25 **INCORRECT** What is the ratio of ultimate load to area of original cross section?

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

Q26 **CORRECT** What is the ratio of shear stress to shear strain?

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

Q27 **INCORRECT** What is the ratio between stress and strain?

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

Q28 **INCORRECT** Which force acts on crank shaft?

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

Q29 **CORRECT** Which is thermosetting plastic?

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

Q30 **INCORRECT** 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  $50\text{N/mm}^2$ ? ( $\pi = 22/7$ )

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

Q31 **CORRECT** What is the tensile stress if a square rod of 10 mm side is tested for a tensile load of 1000 kg?

A.  $1 \text{ kg/mm}^2$

B.  $10 \text{ kg/mm}^2$

C.  $100 \text{ kg/mm}^2$

D.  $1000 \text{ kg/mm}^2$

Q32 **INCORRECT** 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. 0.0001786

B. 0.0001687

C. 0.0001867

D. 0.0001968

Q33 **CORRECT** 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. 0.001

D. 0.0001

Q34 **CORRECT** What is the young's modulus if a wire of 2m long,  $0.8 \text{ mm}^2$  in cross section increases its length by 1.6 mm on suspension of 8 kg weight from it?

A.  $1.25 \text{ kg/mm}^2$

B.  $12.5 \text{ kg/mm}^2$

C.  $125 \text{ kg/mm}^2$

D.  $12500 \text{ kg/mm}^2$

Q35 **INCORRECT** What is the safe stress if the ultimate stress of a material is  $35 \text{ kg/mm}^2$  and factor of safety is 5?

A. 0.143

B. 0.7

C. 1.43

D. 7

Q36 **CORRECT** 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. Specification

D. Plan

Q37 **CORRECT** Which authority publishes schedule of rates?

A. Individual

B. Corporate

C. Partnership firm

D. Government department

Q38 **INCORRECT** What is the relative permittivity of rubber?

A. Between 2 and 3

B. Between 5 and 6

C. Between 8 and 10

D. Between 12 and 14

Q39 **CORRECT** 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/-

C. Rs.572/-

D. Rs.960/-

Q40 **CORRECT** 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

Q41 **CORRECT** Which affects the centre of gravity of the object

A. Weight

B. Mass

C. Density

D. Shape

Q42 **INCORRECT** What is the name of the point at which all the weight of the body concentrated?

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Q45 **INCORRECT** What is the centre of gravity of a rectangular body?

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Q46 **CORRECT** What is the centre of gravity of a solid hemisphere from its base?

A.  $4r/5$

B.  $3r/8$

C.  $3r/4$

D.  $r/2$

Q47 **INCORRECT** What is the centre of gravity of a sphere?

A. At the centre

B. On the circumference

C. At the diameter

D. At the radius

Q48 **CORRECT** Which state of equilibrium's example is A cone resting on its tip?

A. Stable

B. Neutral

C. Unstable

D. Horizontal

Q49 **INCORRECT** Which state of equilibrium's example is, A cone resting on its base?

A. Un-stable

B. Neutral

C. Stable

D. Bothe A and B

Q50 **CORRECT** What is the centre of gravity of a semi circle of diameter 12 cm?

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