

TRINITY ITI UDYAVARA

ITI Quiz - 07-Feb-2026 01:36 PM

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Student Name	Uday	Access Code	1143
Attempt No.	#1	Completion Time	02:30 PM
Rank	#10	Total Questions	25

10 SCORE

25 MAX MARKS

10 CORRECT

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

A. $4r/5$

B. $3r/8$ ☒

C. $3r/4$

D. $r/2$

Q7 **CORRECT** 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 ☐

Q8 **INCORRECT** Which state of equilibrium's example is A cone resting on its tip?

A. Stable ☐

B. Neutral ☐

C. Unstable ☒

D. Horizontal ☐

Q9 **INCORRECT** Which one of the following geometrical shape's centre of gravity lies from its base is $\frac{1}{3}$ of its height?

A. Square ☐

B. Rhombus ☐

C. Triangle ☒

D. Cone ☐

Q10 **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 ☐

Q11 **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 ☐

Q12 **CORRECT** What are the various types of heat treatment processes?

A. Annealing, Normalising, Hardening and Tempering ☐

B. Normalising, Heating, Cooling and Painting ☐

C. Hardening, Soaking, Painting and Packing ☐

D. Tempering, Cooling, Packing and Solling ☐

Q13 **INCORRECT** What is the process of heat treatment?

A. The process of heating and cooling to change the structure and properties ☐

B. The process of heating to change the dimensions ☐

C. The process of cooling to measure the dimensions ☐

D. The process of heating and bending as per our requirement ☐

Q14 **CORRECT** What are the various stages of heat treatment?

A. Heating, Cooling and Quenching ☐

B. Quenching, Cooling and Heating ☐

C. Heating, Soaking and Quenching ☐

D. Soaking, Quenching and Cooling ☐

Q15 **CORRECT** What is the name of the structure formed, if a steel is heated for about 723 Degree C?

A. Cementite

B. Austenite ☒

C. Martensite

D. Ferrite

Q16 **CORRECT** Which heat treatment process is done to refine the grain structure of the steel?

A. Annealing

B. Normalising ☒

C. Hardening

D. Tempering

Q17 **INCORRECT** What is the name of heat treatment process done to relieve strain and stress?

A. Normalising ☐

B. Annealing ☒

C. Hardening

D. Tempering

Q18 **INCORRECT** Which process produce equilibrium conditions?

A. Annealing and Hardening ☐

B. Normalising and Tempering

C. Annealing and Normalising ☒

D. Normalising and Tempering

Q19 **INCORRECT** Which process steel is heated in a carbonaceous atmosphere for the penetration of carbon?

A. Case hardening ☐

B. Nitriding

C. Carburising ☐

D. Induction hardening

Q20 **CORRECT** Which is the suitable nitriding process for all alloyed and unalloyed steels?

A. Silver nitriding

B. Nitriding in salt-bath ☐

C. Nitriding in Quenching tank

D. Gas nitriding

Q21 **INCORRECT** What is the name of the heat treatment process, where the metal is heated and quenched in water or oil?

A. Hardening ☐

B. Normalising and Tempering

C. Annealing ☐

D. Tempering

Q22 **INCORRECT** Which is a kind of surface hardening process?

A. Cementite ☐

B. Ferrite

C. Nitriding ☐

D. Tempering

Q23 **INCORRECT** 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

D. 20 minutes ☐

Q24 **INCORRECT** What is colour of a metal piece when heated to 250 Degree C while doing the tempering process?

A. Blue

B. Brown ☐

C. Purple

D. Pale ☐

Q25 **INCORRECT** 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