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**Score: 13/17 (76.47%)**

**Code: 2569**

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

- |            |                             |
|------------|-----------------------------|
| A) Weight  | <b>B) Mass</b>              |
| C) Density | <u>D) Shape (Incorrect)</u> |

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

- |                  |                                       |
|------------------|---------------------------------------|
| A) Initial point | <b>B) Centre of gravity (Correct)</b> |
| C) Centroid      | D) Central point                      |

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

- |                                   |                              |
|-----------------------------------|------------------------------|
| <b>A) At its centre (Correct)</b> | B) Any where on its radius   |
| C) Any where on its circumference | D) Any where on its diameter |

4. What are the various types of heat treatment processes?

- |   |   |
|---|---|
| <b>A) Annealing, Normalising, Hardening and Tempering (Correct)</b> | B) Normalising, Heating, Cooling and Painting |
| C) Hardening, Soaking, Painting and Packing                         | D) Tempering, Cooling, Packing and Solling    |

5. What is the process of heat treatment?

- |   |  |
|---|--|
| <b>A) The process of heating and cooling to change the structure and properties (Correct)</b> | 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 |

6. What are the various stages of heat treatment?

- |  |                                   |
|--|-----------------------------------|
| A) Heating, Cooling and Quenching                  | B) Quenching, Cooling and Heating |
| <b>C) Heating, Soaking and Quenching (Correct)</b> | D) Soaking, Quenching and Cooling |

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

- |               |                               |
|---------------|-------------------------------|
| A) Cementide  | <b>B) Austenite (Correct)</b> |
| C) Martensite | D) Ferrite                    |

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

- |              |                                 |
|--------------|---------------------------------|
| A) Annealing | <b>B) Normalising (Correct)</b> |
| C) Hardening | D) Tempering                    |

9. What is the name of heat treatment process done to relieve strain and stress?

- |                |                               |
|----------------|-------------------------------|
| A) Normalising | <b>B) Annealing (Correct)</b> |
| C) Hardening   | D) Tempering                  |

10. Which process produce equilibrium conditions?

- |   |                              |
|---|------------------------------|
| A) Annealing and Hardening                    | B) Normalising and Tempering |
| <b>C) Annealing and Normalising (Correct)</b> | D) Normalising and Tempering |

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

- |                                 |                        |
|---------------------------------|------------------------|
| A) Case hardening               | B) Nitriding           |
| <b>C) Carburising (Correct)</b> | D) Induction hardening |

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

- |                                |                                     |
|--------------------------------|-------------------------------------|
| A) Silver nitriding            | <b>B) Nitriding in salt-bath</b>    |
| C) Nitriding in Quenching tank | <u>D) Gas nitriding (Incorrect)</u> |

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

- |                               |                              |
|-------------------------------|------------------------------|
| <b>A) Hardening (Correct)</b> | B) Normalising and Tempering |
| C) Annealing                  | D) Tempering                 |

14. Which is a kind of surface hardening process?

- |                               |              |
|-------------------------------|--------------|
| A) Cementide                  | B) Ferrite   |
| <b>C) Nitriding (Correct)</b> | D) Tempering |

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

- |                     |                                  |
|---------------------|----------------------------------|
| <b>A) 5 minutes</b> | B) 10 minutes                    |
| C) 15 minutes       | <u>D) 20 minutes (Incorrect)</u> |

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

- |                            |                 |
|----------------------------|-----------------|
| <u>A) Blue (Incorrect)</u> | <b>B) Brown</b> |
| C) Purple                  | D) Pale         |

17. What is the purpose of tempering a steel?

**A) To reduce the  
brittleness (Correct)**

B) To remove the ductility

C) To increase the hardness D) To increase the brittleness

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