

Sample Questions

Metallurgical Engineering

1. Which of the following heat treatment creates a case hardened surface?
 - a. Flame hardening
 - b. Carburizing
 - c. Nitriding
 - d. Cyaniding

2. The breaking stress of a particular steel is 1.5 GPa. What force will be needed to break a piece of wire of diameter 1 mm?
 - a. 1178 N
 - b. 1195 N
 - c. 1170 N
 - d. 1180 N

3. Which of the following elements in steel can enhance the machinability by increasing sulphur content?
 - a. Alum
iniu
m
 - b. M
a
n
g
a
n
e

- s
- e
- c. C
o
p
p
e
r
- d. C
a
l
c
i
u
m

4. Flaws in conductive material can be detected by _____.

- a. Radiogr
aphy
- b. Hologra
phy
- c. Eddy
current
testing

d. Ultrasonic testing

5. Flaws in conductive material can be detected by _____.

- e. Radiography
- f. Holography
- g. Eddy current testing

- h. Ultrasonic testing
6. Which of the following methods is used to determine the atomic and/or magnetic structure of a material?
- Scanning electron microscopy
 - Transmission electron microscopy
 - X-ray diffraction
 - Optical microscopy
 - Neutron diffraction
7. Which of the following mills is not used for fine grinding of ores?
- Ball mill
 - Turbo mill
 - Vibrating mill
 - Hammer mill
8. Which of the following laws states that the vapor pressure of an ideal solution is proportional to the Mole fraction of solvent?
- Henry's law
 - Sievert's law
 - Raoult's law
 - Gibbs-Duhem equation

9. Why are low alloy steels welded using nickel alloys as filler metals?

- a. For controlling hot cracking
- b. For controlling cold cracking
- c. For controlling porosity
- d. For controlling distortion

10. Which of the following metal working processes is not a hot working process?

- a. Rolling
- b. Forging
- c. Extrusion
- d. Wire drawing

Aspiring Minds