Unit 3 - Week 1

Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-14, 23:59 IST.

1) What is the mass density of steel? — 1 point

a. 7150 kg/m^3
b. 7850 kg/m^3
c. 6850 kg/m^3
d. 2400 kg/m^3

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

2) Hardness is defined as: — 1 point

a. the property of material by virtue of which, it offers resistance to indentation and scratching
b. the property of material by virtue of which, it offers resistance to large inelastic deformation
c. the property of material by virtue of which, it offers resistance to fracture against the action of impact loading.
d. None of the above

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

3) Which of the following is a disadvantage of steel? — 1 point

a. High strength per unit mass
b. Fire and corrosion resistance
c. High durability
d. Reusable

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

4) What is the permissible stress of steel in bending compression in Working Stress Method? — 1 point

a. 0.5f_y
b. 0.4f_y
c. 0.66f_y
d. 0.75f_y

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

5) What is the factor of safety against axial compressionin Working Stress Method? — 1 point

a. 1.2
b. 1.5
c. 1.75
d. 1.67

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

6) Characteristic values (loads/stresses) are defined as the values that are not expected to be exceeded within the life of the structure with more than: — 1 point

a. 5% probability
b. 2.5% probability
c. 7.5% probability
d. 10% probability

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

7) What is the partial safety factor of shop fabricated welds? — 1 point

a. 1.2
b. 1.1
c. 1.5
d. 1.25

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

8) Which factor is denoted by k_2 in the calculation of design wind speed? — 1 point

a. Probability factor
b. Terrain, height and structure size factor
c. Topography factor
d. None of the above

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

9) The centre to centre distance of adjacent rivets or bolt holes measured in the direction of stress is called: — 1 point

a. Edge distance
b. Gauge distance
c. Pitch
d. Nominal diameter

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

10) A row of rivets/bolts which is parallel to the direction of stress is called: — 1 point

a. Pitch line
b. Gauge line
c. End line
d. Center line

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
b.

11) Minimum edge distance for rivet/bolt is: — 1 point

a. 0.5 × hole diameter
b. 1.0 × hole diameter
c. 1.5 × hole diameter
d. 1.5 × bolt diameter

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

12) Which of the following is correct? — 1 point

a. Size of hole = nominal diameter of bolt - clearances
b. Size of hole = nominal diameter of bolt × clearances
c. Size of hole = nominal diameter of bolt / clearances
d. Size of hole = nominal diameter of bolt + clearances

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
d.

13) What is the minimum pitch distance? — 1 point

a. 1.5 x nominal diameter of fastener
b. 2.0 x nominal diameter of fastener
c. 2.5 x nominal diameter of fastener
d. 2.50 x nominal hole diameter of fastener

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
c.

14) In case of staggered pitch, pitch may be increased by: — 1 point

a. 50%
b. 20%
c. 30%
d. 10%

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.

15) What is the load factor for Live load (LL) for the load combination DL + LL + AL in case of limit state of strength? (DL = Dead Load, AL = Accidental Load) — 1 point

a. 0.35
b. 1
c. 1.2
d. 1.5

a.
b.
c.
d.

No, the answer is incorrect.
Score: 0
Accepted Answers:
a.