Design of Steel Structure

Multiple Choice Questions

- 1 What is the minimum pitch for bolt diameter 20 mm ?

(a) 40 mm

(b) 50 mm

(c) 60 mm

(d) 70 mm

- 2. What is the minimum edge distance for bolt diameter 16 mm ?

(a) 27.2 mm

(b) 30.6 mm

(c) 40 mm

(d) 45 mm

- 3. What is the diameter of hole for M 24 size of bolt ?

(a) 24 mm

(b) 26 mm

(c) 27 mm

(d) 28 mm

- 4. What is the value of “fu” for Grade 4.6 bolts ?

(a) 460 N/mm2

(b) 400 N/mm2

(c) 240 N/mm2

(d) 360 N/mm2

- 5. What is the value of “fy” for Grade 4.6 bolts ?

(a) 460 N/mm2

(b) 400 N/mm2

(c) 240 N/mm2

(d) 360 N/mm2

- 6. Design strength due to rupture is denoted by…

(a) Tdg

(b) Tdn

(c) Tdb

(d) Td

- 7. if 4 bolts are connected at a spacing of 50 mm c/c, then Lc = ….

(a) 100 mm

(b) 150 mm

(c) 200 mm

(d) 250 mm

- 8. for ISA: 100 x 75 x 6 mm, if longer leg is connected, then shear leg width (bs) = ….

(a)120 mm

(b)129 mm

(c)136 mm

(d)140 mm

- 9. for any truss, if Span = 15 m and rise = 3 m, then P.R. = …

(a) 5.07 m

(b) 6.07 m

(c) 7.07 m

(d) 8.07 m

- 10. For any truss, if wall opening area is 10 %, then what is Cpi ?

(a) 0.2

(b) 0.5

(c) 0.7

(d) 0.8

- 11. if Vz = 50 m/s, then what is the value of “Pz” ?

(a) 1500

(b) 2000

(c) 2500

(d) 3000

- 12. if, Height of truss = 20 m,

  Category = 3, Class = A, then what is “k2” ?

(a) 1.00

(b) 1.01

(c) 1.02

(d) 1.03

- 13. For any truss, if Span = 18 m, then its self weight of truss = ….

(a) 100 N/m2

(b) 110 N/m2

(c) 120 N/m2

(d) 130 N/m2

- 14. if Span = 12 m and Rise = 2.5 m, then what is the value of roof angle ?

(a)21.08

(b)22.60

(c)24.04

(d)26.03

- 15. What is the difference of “Vb” for Ahmedabad and Bangalore city ?

(a) 6 m/s

(b) 7 m/s

(c) 8 m/s

(d) 9 m/s

- 16. Probability factor is denoted by…

(a) K1

(b) K2

(c) K3

(d) Cpi

- 17. Topography factor is denoted by…

(a) K1

(b) K2

(c) K3

(d) Cpe

- 18. For “Large” permeability, the value of “Cpi” is …

(a) 0.2

(b) 0.5

(c) 0.7

(d) 0.8

- 19. For single ISA: 100 x 75 x 6 mm, the value of “Ag” = …

(a) 1014 mm2

(b) 1020 mm2

(c) 1030 mm2

(d) 1040 mm2

- 20. Which CODE is required for calculation of Wind load ?

(a) IS: 800

(b) IS: 875 (Part-1)

(c) IS: 875 (Part-2)

(d) IS: 875 (Part-3)

THANK YOU

Answers

1. 50 mm	11. 1500
2. 30.6 mm	12. 1.01
3. 26 mm	13. 110 N/m2
4. 400 N/mm2	14. 22.60
5. 240 N/mm2	15. 6 m/s
6. Tdn	16. K1
7. 150 mm	17. K3
8. 129 mm	18. 0.7
9. 8.07 m	19. 1014 mm2
10. 0.5	20. IS: 875 (Part-3)