Chettinad College of Engineering & Technology
Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

Department of Civil Engineering

Unit III – MCQ Bank

1. Column is a tension member.

   a) True

   b) False

   Answer: b

2. _____ is a vertical member subjected to direct compressive force.

   a) Strut

   b) Beam

   c) Column

   d) Post

   Answer: c

3. The inclined member carrying compressive loads is _____

   a) Post

   b) Stanchion

   c) Strut

   d) Column

   Answer: c

4. A built up rolled steel section carrying compressive force is called _____

   a) Post

   b) Pillar

   c) Strut

   d) Stanchion

5. _____ of column mainly depends upon end conditions.

   a) Radius of gyration

b) Slenderness ratio

c) Factored load

d**) Effective length**

Answer: d

6. The hinged end is also known as _____

a) Fixed end

b) Pinned end

c) Rigid end

d) Free end

Answer: b

7. ong columns fail due to _____

a) Direct stress

b) Buckling stress

c) Lateral stress

d) Tensile stress

Answer: b

8. In short columns, the slenderness ratio is less than _____

a) 32

b) 64

c) 56

d) 28

Answer: a

9. For _____ columns, the slenderness ratio is more than 32 and less than 120.

a) Long

b) Short

c) Average

d) Medium

Answer: d

10. Radius of gyration is denoted by _____

a) k

b) g

c) y

d) s

Answer: a

11. The _____ is the distance between Centres to centre of effective lateral ends.

a) Mean length

b) Stripped length

c) True length

d) Actual length

Answer: d

12. The slenderness ratio is the ratio of effective length to least _____

a) Ultimate load

b) Actual length

c) Radius of gyration

d) Factor of safety

Answer: c

13. Which of the following is also known as the working load?

a) Safe load

b) Crippling load

c) Ultimate load

d) Buckling load

Answer: a

14. Factor of safety is a ratio of crippling load to _____ load.

a) Critical load

b) Buckling load

c) Safe load

d) Ultimate load

Answer: c

15. At _____ load, the column is said to have developed an elastic instability.

a) Safe

b) Working

c) Factored

d) Crippling

Answer: d

16. he value of _____ is relatively high for short columns.

a) Safe load

b) Factored load

c) Working load

d) Buckling load

Answer: d

17. If the thickness of plate is negligible when compared to the diameter of the cylindrical, then it is called _____

a) Thick cylinder

b) Thin cylinder

c) Hoop cylinder

d) Circumferential cylinder

Answer: b

18. In thin cylinders, the thickness should be _____ times of internal diameter.

a) 1/20

b) 1/15

c) 1/30

d) 1/40

Answer: a

19. Oil tanks, steam boilers, gas pipes are examples of _____

a) Thick shells

b) Thin cylinders

c) Hoop cylinders

d) Longitudinal cylinders

Answer: b

20. in _____ shells, the stress distribution is not uniform over the thickness of the material.

a) Thick

b) Thin

c) Hoop

d) Circumferential

Answer: a

21. Hydraulic radius is denoted by _____

a) T

b) A

c) R

d) N

Answer: b

22. The stress acts tangential to circumference is called _____ stress.

a) Hoop

b) Fluid

c) Longitudinal

d) Yield

23. The hoop stress is _____ along the x axis.

a) Tensile

b) Parabolic

c) Compressed

d) Transverse

Answer: a

24. The cylinder has a tendency to split up along _____ due to circumferential stress.

a) Area

b) Radius

c) Diameter

d) Length

Answer: c

25. _____ is half the circumferential stress.

a) Hoop stress

b**) Longitudinal stress**

c) Fluid stress

d) Transverse stress

Answer: b