

CIVIL ENGINEERING

1. Poisson's ratio of steel is taken as
 (A) 0.17 (B) 0.25 (C) 0.3 (D) 0.5

2. A point in a body consists of linearly elastic material, subjected to stress 100N/mm^2 & 60N/mm^2 along major and minor axis. The maximum shear stress is equal to
 (A) 100N/mm^2 (B) 80N/mm^2
 (C) 60N/mm^2 (D) 20N/mm^2

3. A thin cylinders 200mm diameter, closed at ends subjected to internal pressure of 10N/mm^2 . What is the maximum shear stress that occurs in wall of the cylinder if thickness of wall is 5mm .
 (A) 200N/mm^2 (B) 150 N/mm^2
 (C) 50N/mm^2 (D) 25N/mm^2

4. A simple supported beam of span l carries a gradually varying load, zero at supports and w/m at mid span the maximum BM at mid span is
 (A) $\frac{wl^2}{8}$ (B) $\frac{wl^2}{10}$
 (C) $\frac{wl^2}{12}$ (D) $\frac{wl^2}{24}$

5. A cantilever beam of constant EI & Span l , subject to an u.d .l of w/m for full span, the vertical deflection at free end is
 (A) $5 \frac{wl^4}{284EI}$ (B) $\frac{wl^4}{48EI}$
 (C) $\frac{wl^4}{8EI}$ (D) $\frac{wa^4}{8EI} + \frac{wa^4}{6EI}$