Q.60. If the nominal shear stress (τ_y) at a section does not exceed the permissible shear stress (τ_c)

A• Minimum shear reinforcement is still provided

B• Shear reinforcement is provided to resist the nominal shear stress

C• No shear reinforcement is provided

D• Shear reinforcement is provided for the difference of the two

Q.61. Shear span is defined as the zone where

A• Bending moment is zero

B• Shear force is zero

C• Shear force is constant

D• Bending moment is constant

Q.62. In a reinforced concrete retaining wall, a shear key is provided, if the

A• Shear stress in the vertical stem is excessive

B• Shear force in the toe slab is more than that in the heel slab

C• Retaining wall is not safe against sliding

D• Retaining wall is not safe against overturning

Q.63. The maximum permissible shear stress τ_{cmax} given in BIS 456-1978 is based on

A• Diagonal tension failure

B• Diagonal compression failure

C• Flexural tension failure

D• Flexural compression failure

Q.66. Which one of the following statements is correct? Diagonal tension reinforcement is provided in a beam as

A• Longitudinal bars

B• Bent up bars

C• Helical reinforcement

D• 90° bend at the bends of main bars

Q.68. A beam is designed for uniformly distributed loads causing compression in the supporting columns. Where is the critical section for shear? (d is effective depth of beam the L d is development length)

(a) A distance Li3 from the face of the support

(b) A distance d from the face of the support

(c) At the centre of the support

(d) At the mid span of the beam

Q.70. What is the adoptable maximum spacing between vertical stirrups in an RCC beam of rectangular cross-section having an effective depth of 300 mm?

(a) 300mm

(b) 275mm

(c) 250mm

(d) 225mm

Q.4. In case of 2-way slab, the limiting deflection of the slab is

(a) primarily a function of the long span

(b) primarily a function of the short span

(c) independent of long or short span

(d) dependent on both long and short spans

Q.5. From limiting deflection point of view, use of high strength steel in RC beam res

(a) reduction in depth

(b) no change in depth

(c) increase in depth

(d) increase in width

Q.12. Given that d = effective depth; b = width and D = overall depth, the maximum area of compression reinforcement in a beam is

(a) 0.04 bd

(b) 0.04 bd

(c) 0.12 bd

(d) 0.12 bD

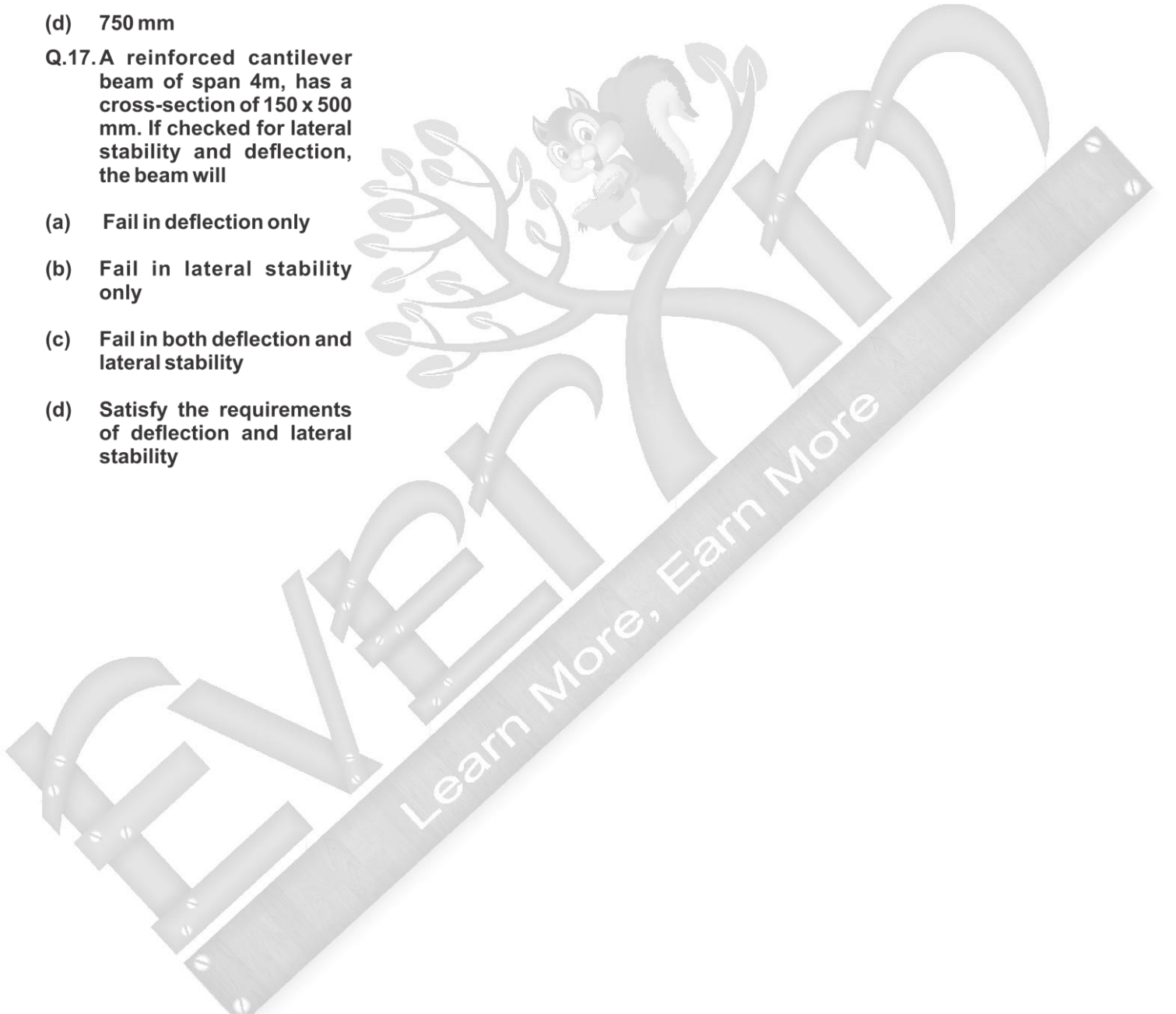Q.13. A reinforced concrete slab is 75 mm thick. The maximum size of reinforcement bar that can be used is

(a) 12 mm diameter

(b) 10 mm diameter

(c) 8 m diameter

(d) 6 mm diameter

Q.16. Side face reinforcement is provided in a beam when the depth of web exceeds

(a) 300 mm

(b) 450 mm

(c) 500 mm

(d) 750 mm

Q.17. A reinforced cantilever beam of span 4m, has a cross-section of 150 x 500 mm. If checked for lateral stability and deflection, the beam will

(a) Fail in deflection only

(b) Fail in lateral stability only

(c) Fail in both deflection and lateral stability

(d) Satisfy the requirements of deflection and lateral stability