Assignment 10

The deadline for submitting this assignment has passed.

Due on 2021-03-21, 23:59 IST.

As per our records, you have not submitted this assignment.

1) In order to completely retain the deformation of evaporation, stiffness of the support system should be:
   - very high
   - very low
   - moderate
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: very high

2) Stiffness of the support system is a function of:
   - magnitude of in-situ stress
   - zone of evaporation
   - time of installation of support system
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: of the above

3) A high load support system leads to:
   - day to evaporation deformation
   - support system due to yielding
   - both (a) and (b)
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: of support system due to yielding

4) Why the applied pressure required to limit deformation drops to zero at point G in the following figure?
   - No remaining driving force to induce further deformation
   - Overhead deformation at zone of loose rock mass in rock layer and hence no further deformation in side walls
   - Both (a) and (b)
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: of support system due to yielding

5) For the figure shown in G, why the support required to limit deformation of roof drops to a minimum and then begins to increase again?
   - Rock would not collapse even if no support has been installed
   - Overhead displacement of the zone of loose rock in rock layer causes additional rock to become loose and weight of this additional rock added to required support pressure
   - Both (a) and (b)
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: of support system due to yielding

6) Most common failure mode in case of rock slopes are:
   - Plane failure
   - Wedge failure
   - Topping failure
   - Both (a) and (b)
   No, the answer is incorrect.
   Accepted Answer: both

7) What will be the critical depth of tension cracks in the upper slope surface of 93 m high slope. Given: dip of slope plane = 45° and dip of failure plane = 45°.
   - 0.8
   - 1.2
   - 1.8
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: 1.8

8) The factor of safety recommended for temporary slope designs is generally:
   - 1
   - 1.3
   - 2
   - None of the above
   No, the answer is incorrect.
   Accepted Answer: 1.3

9) The factor of safety of a rock slope against plane failure does not depend on the:
   - length of the slope
   - height of the slope
   - inclination of the slope
   - unit weight of the rock mass
   No, the answer is incorrect.
   Accepted Answer: length of the slope

10) Calculate the factor of safety of wedge supported by friction only for the following data: Fr angle = 45°, f angle = 45°, friction angle = 35°, and dip of the line of intersection of two planes = 60°.
    - 0.56
    - 1.22
    - 2.34
    - None of the above
    No, the answer is incorrect.
    Accepted Answer: 2.34