



Tunnel Surveying and Deformation Monitoring

3 Hours

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Final Exam

1. What does the term "TBM" stand for?
 - a. Tunnel boring machine
 - b. Tunnel blaze machine
 - c. Temporary boring machine
 - d. The boring machine

2. What type of rock were ants found in 92 million years ago?
 - a. Diamonds
 - b. Rubies
 - c. Baltic Amber
 - d. Jasper

3. What type of chambers were in the Great pyramid?
 - a. King and Queen
 - b. Mummy
 - c. Dogs
 - d. Cats

4. The English Channel Tunnel was also called?
 - a. Euro Tunnel
 - b. French Tunnel
 - c. English Tunnel
 - d. European Transport

5. What is the minimum control points required on each end of the tunnel?
 - a. One
 - b. Two
 - c. Three
 - d. Zero

6. What measurement should you have off the centerline if you have 8 feet diameter tunnel when measuring the shield?
 - a. Ten feet
 - b. Eight feet
 - c. Nine feet
 - d. Four feet

7. The Seikan tunnel is located where?
 - a. China
 - b. Japan
 - c. United State
 - d. Korea

8. When was liquid shotcrete invented?
 - a. 1907
 - b. 2000
 - c. 2010
 - d. 2018

9. The Port of Miami Tunnel is an example of?
 - a. TBM Surveyed tunnel
 - b. Cut and Cover
 - c. Drill and Blast Tunnel
 - d. Open Pit

10. How long was the Michigan Ditch Tunnel?
 - a. 450 feet
 - b. 968 feet
 - c. 1450 feet
 - d. 766 feet