

Civil Engineering

1. In a lifting machine with efficiency 80% and velocity ratio 50, how much effort is required to raise a load of 800 lbs?
 - a. 10 lbs
 - b. 20 lbs
 - c. 30 lbs
 - d. 80 lbs

2. A blanket of impermeable material is laid for some length along the downstream ground surface. What is the purpose of this step in piping?
 - a. To increase factor of safety
 - b. To add clearance
 - c. To prevent the pipes from rusting
 - d. Any of the above
 - e. None of the above

3. What is the maximum deflection of a fixed beam carrying a central load W ?
 - a. $WL^3/48EI$
 - b. $WL^3/96EI$
 - c. $WL^3/198EI$
 - d. $5WL^3/384EI$

4. Which of the following activities is/are a constituent of track construction?
 - a. Earth work
 - b. Ballasting
 - c. Plate laying
 - d. All of the above.

5. Whenever a number of columns are to be constructed in a row, which of the following will be preferred?
- Strip
 - Pile
 - Strap
 - Raft
6. In which of the following situations is compass surveying recommended?
- Area is large and crowded
 - Area is small and uncrowded
 - Area is suspected of presence of magnetic substances
 - None of the above
7. Propagation of an existing crack or joint upward to the new pavement surface is called ____.
- Creeping
 - Alligator Cracking
 - Tearing
 - Reflection cracking
 - Shear failure
8. For which of the following is the friction drag not more than pressure drag?
- An air foil
 - A streamlined body
 - A circular disc placed normal to the flow direction
 - All of the above
9. In which of the following river reach, can head works be constructed usefully?
- Hilly
 - Sub-mountainous
 - Plain
 - Both B and C