

## Sample Questions

### 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?

- a. Strip
- b. Pile
- c. Strap
- d. Raft

6. In which of the following situations is compass surveying recommended?

- a. Area is large and crowded
- b. Area is small and uncrowded
- c. Area is suspected of presence of magnetic substances
- d. None of the above

7. Propagation of an existing crack or joint upward to the new pavement surface is called \_\_\_\_\_.

- a. Creeping
- b. Alligator Cracking
- c. Tearing
- d. Reflection cracking
- e. Shear failure

8. For which of the following is the friction drag not more than pressure drag?

- a. An air foil
- b. A streamlined body
- c. A circular disc placed normal to the flow direction
- d. All of the above

9. In which of the following river reach, can head works be constructed usefully?

- a. Hilly
- b. Sub-mountainous
- c. Plain
- d. Both B and C