

CIVIL ENGINEERING

Q1. A particle is of weight 8 kg. When it is allowed to fall under the force of gravity its momentum at the time $t=2$ sec would be _____.

- 2 kg sec
- 8 kg sec
- 16 kg sec
- 48 kg sec
- 32 kg sec

Q2. What can be done to increase the factor of safety against piping?

- Add binding materials to the soil
- Lay a blanket of impermeable material for some length along the downstream ground surface
- Pump out the water periodically, down stream
- Any of the above

Q3. For a hollow shaft whose external diameter is d and internal diameter $d/2$, the polar modulus will be _____.

- $\pi/16 d^3$
- $12\pi/256 d^3$
- $15\pi/16 d^3$
- $15\pi/16 d^3$
- $15\pi/256 d^3$

Q4. Consider the following operations:

1. Earth work
2. Ballasting
3. Plate laying

The correct sequence of activities followed in the track construction is:

- 1, 2 and 3
- 1, 3 and 2
- 3, 1 and 2
- 2, 3 and 1

Q5. Whenever a number of columns are to be constructed in a row, which of the following will be preferred?

- Pile
- Strip
- Raft
- Strap