

Mechanical Engineering Quiz 003 (Mixed)

Quiz Instructions

- Before attempting, carefully read the question text.
- Then choose the correct answer.
- Click on “**Submit**” to confirm your answer.
- Use the **Question List** in the upper left corner to jump to a certain question.

1. Which of the following cam follower has the highest wear rate?

- A) Knife edge follower
- B) Roller follower
- C) Flat face follower
- D) Spherical faced follower

2. When the position of the body is either in rest or in uniform velocity, then the body is said to be in the _____.

- A) rest
- B) uniform motion
- C) rotational motion
- D) equilibrium

3. Calculate the value of modulus of rigidity (N/mm². if the Poisson’s ratio is 0.25 and modulus of elasticity for the material is 200 N/mm².

- A) 50
- B) 80
- C) 100
- D) 150

4. Which ratio defines the height of a watt governor to that of the porter governor for equal arm and link lengths, where m is the mass of the ball and M is the mass of the sleeve?

- A) $\frac{m}{M + m}$
- B) $\frac{M}{M + m}$
- C) $\frac{M + m}{m}$
- D) $\frac{m}{M + m}$

5. How is sensitivity and stability related to governor?

- A) Directly proportional
- B) Inversely proportional
- C) Not related
- D) Cannot be determined

6. Which of the following is CORRECT for the train value of a gear train?

- A) Speed of driver/speed of driven
- B) Speed of driven/speed of driver
- C) Number of teeth on driven/number of teeth on driver
- D) None of these

7. Choose the CORRECT option for the Hooke's law.

- A) $\sigma \propto \frac{1}{\epsilon}$
- B) $\sigma \propto \epsilon$
- C) $\sigma = \epsilon$
- D) $\sigma \neq \epsilon$

8. The beam which has one _____ end and other _____ end is known as cantilever beam.

- A) fixed, free
- B) fixed, hinged
- C) hinged, free
- D) None of these

9. What will be the change in the vertical height (in m) of a watt governor, when the speed is decreased from 50 rpm to 25 rpm?

- A) 0.358
- B) 1.074
- C) 1.432
- D) 1.79

10. When the friction comes into action between the two running parts of a machine, it results in the production of _____.

- A) light
- B) oil
- C) energy
- D) heat

Answer Keys

Question	Answer
1	A
2	D
3	B
4	C
5	B

Question	Answer
6	B
7	B
8	A
9	B
10	D