

WORK SHEET
UNIT-V

1. A shaft is primarily used to:
 - A) Support load only
 - B) Transmit power
 - C) Reduce friction
 - D) Increase speedAnswer: B) Transmit power
2. Shafts are generally subjected to:
 - A) Only bending
 - B) Only torsion
 - C) Combined bending and torsion
 - D) Compression onlyAnswer: C) Combined bending and torsion
3. Hollow shafts are preferred over solid shafts because they:
 - A) Are cheaper
 - B) Have more weight
 - C) Provide better strength-to-weight ratio
 - D) Are easier to manufactureAnswer: C) Provide better strength-to-weight ratio
4. Shaft design based on rigidity considers:
 - A) Stress
 - B) Strain
 - C) Angle of twist
 - D) LoadAnswer: C) Angle of twist
5. When shafts are subjected to combined bending and axial loads, the design is based on:
 - A) Only bending stress
 - B) Only axial stress
 - C) Equivalent stress
 - D) Shear stress onlyAnswer: C) Equivalent stress
6. According to BIS standards, shaft sizes are selected based on:
 - A) Random values
 - B) Preferred series
 - C) Cost only
 - D) ShapeAnswer: B) Preferred series
7. Gaskets are used to:
 - A) Transmit power
 - B) Prevent leakage
 - C) Increase speed
 - D) Reduce weightAnswer: B) Prevent leakage

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8. Rotary seals are used in:
- A) Stationary parts
 - B) Rotating shafts
 - C) Fixed joints
 - D) Riveted joints
- Answer: B) Rotating shafts
9. Muff coupling is a type of:
- A) Flexible coupling
 - B) Rigid coupling
 - C) Hydraulic coupling
 - D) Gear coupling
- Answer: B) Rigid coupling
10. Split muff coupling is also known as:
- A) Clamp coupling
 - B) Flange coupling
 - C) Sleeve coupling
 - D) Gear coupling
- Answer: A) Clamp coupling
11. Flange coupling connects shafts using:
- A) Keys only
 - B) Bolts and flanges
 - C) Welds
 - D) Rivets
- Answer: B) Bolts and flanges
12. Flexible couplings are used to:
- A) Prevent misalignment
 - B) Allow misalignment
 - C) Increase rigidity
 - D) Reduce torque
- Answer: B) Allow misalignment
13. Modified flange coupling is a type of:
- A) Flexible coupling
 - B) Rigid coupling
 - C) Permanent joint
 - D) Temporary joint
- Answer: A) Flexible coupling
14. The angle of twist in shafts depends on:
- A) Length
 - B) Torque
 - C) Modulus of rigidity
 - D) All of the above
- Answer: D) All of the above
15. The function of seals in machines is to:
- A) Transmit torque
 - B) Prevent leakage of fluids

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C) Increase strength

D) Reduce size

Answer: B) Prevent leakage of fluids

FILL IN THE BLANKS

1. Shafts are used to transmit _____ from one part to another.

Answer: power

2. Hollow shafts have better _____ to weight ratio.

Answer: strength

3. Design for rigidity considers _____ of twist.

Answer: angle

4. Combined loading in shafts includes bending and _____.

Answer: torsion

5. BIS provides standard _____ for shafts.

Answer: sizes

6. Gaskets are used to prevent _____.

Answer: leakage

7. Seals used for rotating parts are called _____ seals.

Answer: rotary

8. Muff coupling is a _____ type coupling.

Answer: rigid

9. Split muff coupling is also called _____ coupling.

Answer: clamp

10. Flexible couplings allow _____ between shafts.

Answer: misalignment



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