

Student Name: _____ Roll No: _____

1. What causes the defect of 'Hard steering' in the hydraulic power steering system?
- A) Improper position of drop arm
B) Improper size of tyre
C) Band axle beam
D) Tie rod loose fitting
2. What is the purpose of beads and plies provided in the tyre?
- A) Provide strength to tyre
B) Prevent tyre slip
C) Resist vibration
D) Provide grippness on the surface
3. Which system provided between axles and chassis frame?
- A) Cooling system
B) Steering system
C) Braking system
D) Suspension system
4. What will be effect of unequal castor in the vehicle?
- A) Driver have to use less effort on steering
B) Vehicle will not move
C) Increase steering stability
D) Vehicle pull to one side wheel
5. Which type of wheel consist two separate discs are clamped together?
- A) Disc wheel
B) Heavy vehicle
C) Wire wheel
D) Split wheel
6. What is the advantage of using nitrogen in the tyres?
- A) Provide positive road grip
B) Provide cusioning effect on the vehicle
C) Obeve shocks and vibration
D) Increase the tyre life
7. Which part of integral power steering reduce fluid pressure?
- A) Rotary valve
B) Flow control valve
C) Torsion bar
D) Unloading valve
8. What is the material used to make brake drum?
- A) High speed steel
B) Stainless steel
C) High carbon steel
D) Special type castiron
9. What causes abnormal tyre wear, tyre slip and poor steering stability?
- A) Front axle bend/twist
B) Malfunctioning of torsion bar
C) Incorrect toe - in and toe - out
D) Presence of air in the break fluid
10. What is the main cause for wear on one side of tyre?
- A) Under inflation
B) Over inflation
C) Improper caster
D) Improper camber
11. How the tyre height is calculated?
- A) Thread width + Tyre width
B) Rim dia - tyre outer dia
C) Tyre width + Bead circle dia
D) Tyre outer dia - Rim dia
12. When the driver is warned of difference in tyre pressure?
- A) Difference in pressure more than 10%
B) Difference in pressure exceeds 40%
C) Difference in pressure exceeds 30%
D) Difference in pressure more than 20%
13. What is the impact of larger scrub radius?
- A) Unequal braking on the front wheel
B) Wear on the centre part of tyre
C) Bending of steering linkage point
D) Wear on the outer edge of tyre
14. Why the alternate spokes are screwed to slope forward and backward towards the rim in the wire wheel?
- A) To provide cusioning effect
B) To observe braking and driving torque
C) To distribute the load evenly
D) To take the uneven load
15. What is the purpose of castor in wheel alignment?
- A) Reduce tyre wear
B) Maintain directional stability and control
C) Convert steering torque input into voltage signal
D) Reduce abnormal vibration
16. What is the advantage of using independent suspension system?
- A) Shocks are transmitted from one wheel to other
B) Maintance cost is less

- C) Spring weight is less D) This is simple arrangement
C) It transfer braking torque to the chassis D) It gives cushioning effects

17. Which is the heart of integral power steering system?

- A) Pressure relief valve B) Rotary control valve
C) Flow control valve D) Unloading valves

18. Why rubber buffer is provided in the main spring of suspension system?

- A) Provide steering control stability B) Transfer the load equally
C) Transfer pay load smoothly D) Protect chassis frame from heavy jerk

19. Where the non-return valve is located in the centre feed master cylinder?

- A) On the reservoir B) On the bypass port
C) On the cylinder head D) On the pistons head

20. What is the cause of 'Poor self centering' in a vehicle?

- A) Improper wheel alignment B) Loose wheel level
C) Low oil level D) Filter choked

21. What is the unit of strain?

- A) Kg/cm^2 B) No unit
C) Newton/metre^2 D) Metre

22. Which rating indicate the braking capabilities of the tire to the consumer?

- A) Tyre rating B) Ply rating
C) Traction rating D) Temperature rating

23. Which force acts on rivets?

- A) Shear force B) Tensile force
C) Compressive force D) Bending force

24. Which is the heart of integral power steering system?

- A) Unloading valves B) Pressure relief valve
C) Rotary control valve D) Flow control valve

25. What is the cause of 'low pressure' in the hydraulic power steering system?

- A) Wornout sealing ring B) Air in the system
C) Wrong flow control valve setting D) Low oil level

26. Which is not the function of suspension system?

- A) It maintains body level B) It increase steering stability

27. What is the advantage of coil spring?

- A) Good load carrying capacity B) High steering and stability
C) Low space requirement D) Provide greater pay load

28. What is the ratio between ultimate stress to working stress?

- A) Bulk modulus B) Modulus of rigidity
C) Factor of safety D) Young's modulus

29. Which part of tyre referred as 'Crown'?

- A) Tyre width B) Thread radius
C) Rim width D) Thread width

30. What is the safe stress if the ultimate stress of a material is 35 kg/mm^2 and factor of safety is 5?

- A) 1.43 B) 0.7
C) 7 D) 0.143

31. What is the recommended value of combined angle in the steering system?

- A) 12 - 15 Degree B) 9 - 10 Degree
C) 15 - 18 Degree D) 5 - 8 Degree

32. What is the cause of noise in steering?

- A) High fluid level B) Presence of air in the fluid
C) Defective torsion bar D) Defective flow control valve

33. What is the function of Rim in the wheel construction?

- A) Holds the tyre in correct position B) Distribute the load equally
C) Support the axle D) Provides balancing of vehicle

34. What is the term used for maximum stress attained by a material before rupture?

- A) Ultimate stress B) Tensile stress
C) Working stress D) Compressive stress

35. What is the purpose of air suspension?

- A) Reduce the suspension weight B) Reduce the space occupation
C) Used for leveling purpose D) Increase the directional stability

36. What is the cause of noise in steering?

- A) Defective torsion bar B) Defective flow control valve
C) Presence of air in the fluid D) High fluid level

37. What is the disadvantage of rigid axle suspension system?

- A) Spring weight is less B) This is a complicated arrangement
C) Vibration damping is less effective D) Maintenance cost is more

38. What is the maximum percentage of stretch of its original length is allowable for elastic materials?

- A) 300% B) 100%
C) 200% D) 400%

39. Which type of independent suspension system simple in construction and allow more deflection of the front wheel without effect on the steering?

- A) Conventional suspension B) Coil spring suspension
C) Strut type suspension D) Torsion bar suspension

40. What is the advantage of coil spring?

- A) Provide greater pay load B) Good load carrying capacity
C) Low space requirement D) High steering and stability

41. What is the name of distance between most protruding portions on both sides of tyre?

- A) Tyre width B) Thread radius
C) Tyre outer diameter D) Tyre height

42. When the driver is warned of difference in tyre pressure?

- A) Difference in pressure exceeds 30% B) Difference in pressure more than 20%
C) Difference in pressure exceeds 40% D) Difference in pressure more than 10%

43. Where the airbags are located in the air suspension system?

- A) Between brake tank and vehicle axle B) Between frame and vehicle axle
C) Between high control valve and frame D) Between air pressure regulator and front axle

44. What will be the effect of negative camber excessive in the wheel alignment?

- A) Centre of tyre wearout faster B) Outer edge of tyre wearout faster
C) Inner edge of tyre wear out faster D) Cracks developed in the tyre tread