

Student: Basavaraj Nagoda

Score: 33/44 (75.00%)

Code: 5290

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

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

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

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

3. What is the advantage of coil spring?

- A) Good load carrying capacity (Incorrect) B) High steering and stability
C) **Low space requirement** D) Provide greater payload

4. Which system provided between axles and chassis frame?

- A) Braking system **B) Suspension system (Correct)**
C) Steering system D) Cooling system

5. Which is not the function of suspension system?

- A) It maintains body level B) It gives cushioning effects
C) It transfer braking torque to the chassis **D) It increase steering stability (Correct)**

6. What is the purpose of castor in wheel alignment?

- A) Maintain directional stability and control (Correct)** B) Reduce tyre wear
C) Reduce abnormal vibration D) Convert steering torque input into voltage signal

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

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

8. What is the purpose of air suspension?

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

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

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

10. What is the advantage of using nitrogen in the tyres?

- A) Provide positive road grip **B) Increase the tyre life (Correct)**
C) Provide cushioning effect on the vehicle D) Observe shocks and vibration

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

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

12. What is the cause of noise in steering?

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

13. What is the impact of larger scrub radius?

- A) Wear on the outer edge of tyre **B) Unequal braking on the front wheel**
C) Wear on the centre part of tyre (Incorrect) D) Bending of steering linkage point

14. What causes abnormal tyre wear, tyre slip and poor steering stability?

- A) Incorrect toe - in and toe - out (Correct)** B) Malfunctioning of torsion bar
C) Presence of air in the break fluid D) Front axle bend/twist

15. What is the main cause for wear on one side of tyre?

- A) Improper camber** B) Improper caster (Incorrect)
C) Over inflation D) Under inflation

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

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

17. What causes the defect of Hard steering? in the hydraulic power steering system?

- A) Improper position of drop arm (Incorrect) B) Tie rod loose fitting
C) **Band axle beam** D) Improper size of tyre

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

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

19. What is the material used to make brake drum?

- A) Stainless steel B) High carbon steel
C) **Special type cast iron** (Correct) D) High speed steel

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

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

21. What is the recommended valve of combined angle in the steering system?

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

22. How the tyre height is calculated?

- A) Rim dia - tyre outer dia B) **Tyre outer dia - Rim dia** (Correct)
C) Thread width + Tyre width D) Tyre width + Bead circle dia

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

- A) Thread width B) Rim width
C) Tyre width D) **Thread radius** (Correct)

24. Which type of wheel consist two separate discs are clamped together?

- A) **Split wheel** (Correct) B) Wire wheel
C) Disc wheel D) Heavy vehicle

25. Which part of integral power steering reduce fluid pressure?

- A) Torsion bar B) Rotary valve
C) **Unloading valve** (Correct) D) Flow control valve

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

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

27. What is the advantage of coil spring?

- A) Good load carrying capacity (Incorrect) B) High steering and stability
C) **Low space requirement** D) Provide greater payload

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

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

29. What is the advantage of using independent suspension system?

- A) This is simple arrangement B) Shocks are transmitted from one wheel to other (Incorrect)
C) **Spring weight is less** D) Maintenance cost is less

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

- A) Ply rating B) Tyre rating
C) **Traction rating** (Correct) D) Temperature rating

31. What is the purpose of beads and plies provided in the tyre?

- A) **Provide strength to tyre** (Correct) B) Provide grippiness on the surface
C) Prevent tyre slip D) Resist vibration

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

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

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

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

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

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

35. What is the cause of noise in steering?

A) High fluid level

B) Presence of air in the fluid

C) Defective flow control valve (Incorrect)

D) Defective torsion bar

36. What will be effect of unequal castor in the vehicle?

A) Vehicle pull to one side wheel

B) Vehicle will not move

C) Driver have to use less effort on steering

D) Increase steering stability (Incorrect)

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

A) Transfer pay load smoothly

B) Protect chassis frame from heavy jerk (Correct)

C) Transfer the load equally

D) Provide steering control stability

38. Why the alternate spokes are screwed to slope forward and backward towards the rim in the wire wheel?

A) To take the uneven load

B) To provide cushioning effect

C) To observe braking and driving torque (Correct)

D) To distribute the load evenly

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

A) 100%

B) 200%

C) 300% (Correct)

D) 400%

40. What is the unit of strain?

A) Kg/cm²

B) Newton/metre²

C) Metre

D) No unit (Correct)

41. Which force acts on rivets?

A) Tensile force

B) Compressive force

C) Shear force (Correct)

D) Bending force

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

A) Tensile stress

B) Compressive stress

C) Working stress

D) Ultimate stress (Correct)

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

A) Bulk modulus

B) Young's modulus

C) Factor of safety (Correct)

D) Modulus of rigidity

44. What is the safe stress if the ultimate stress of a material is 35 kg/mm² and factor of safety is 5?

A) 0.143

B) 0.7

C) 1.43

D) 7 (Correct)