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Score: 33/44 (75.00%)

Code: 3022

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      B) High steering and stability  
**C) Low space requirement (Correct)**      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 (Incorrect)      **D) It increase steering stability**

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

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 (Incorrect)      **B) Unequal braking on the front wheel**  
 C) Wear on the centre part of tyre      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  
B) Tie rod loose fitting  
C) **Band axle beam (Correct)**  
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 (Incorrect)  
D) Wornout sealing ring

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

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

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

- A) On the reservoir  
B) On the cylinder head (Incorrect)  
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  
B) High steering and stability  
C) **Low space requirement (Correct)**  
D) Provide greater pay load

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) Maintance 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 grippness 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) Centreof 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  
C) Defective flow control valve  
**B) Presence of air in the fluid (Correct)**  
D) Defective torsion bar

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

- A) Vehicle pull to one side wheel (Correct)**  
C) Driver have to use less effort on steering  
B) Vehicle will not move  
D) Increase steering stability

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

- A) Transfer pay load smoothly  
C) Transfer the load equally  
**B) Protect chassis frame from heavy jerk (Correct)**  
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  
C) **To observe braking and driving torque**  
B) To provide cushioning effect  
D) To distribute the load evenly (Incorrect)

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

- A) 100%  
**C) 300% (Correct)**  
B) 200%  
D) 400%

40. What is the unit of strain?

- A) Kg/cm<sup>2</sup>  
C) Metre  
B) Newton/metre<sup>2</sup>  
**D) No unit (Correct)**

41. Which force acts on rivets?

- A) Tensile force  
**C) Shear force**  
B) Compressive force (Incorrect)  
D) Bending force

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

- A) Tensile stress  
C) Working stress (Incorrect)  
B) Compressive stress  
**D) Ultimate stress**

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

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

44. What is the safe stress if the ultimate stress of a material is 35 kg/mm<sup>2</sup> and factor of safety is 5?

- A) 0.143  
C) 1.43  
B) 0.7 (Incorrect)  
**D) 7**