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Score: 30/37 (81.08%)

Code: 1321

1. What is the steering linkage ratio if the pitman arm length twice of steering arm length?

- A) 02:01 B) 02:01
C) 01:02 (Correct) D) 02:03

2. What is the average power steering gear ratio followed in general?

- A) 40% less than manual steering B) Equal to manual steering
C) 20% less than manual steering (Correct) D) 10% more than manual steering

3. What is the range of steering ratio available in general?

- A) 8 : 2 to 22 : 2 B) 11 : 2 to 22 : 2
C) 11 : 1 to 24 : 1 (Correct) D) 10 : 1 to 18 : 1

4. What is the maximum air pressure supplied by the compressor in the air suspension system?

- A) 100 to 115 PSI B) 180 to 210 PSI
C) 120 to 125 PSI (Correct) D) 200 to 215 PSI

5. What is the aspect ratio in the tyre structure?

- A) Percentage ratio of tyre height to Rim width B) Ratio between tyre height to tyre dia
C) Percentage ratio of tyre height to tyre width (Correct) D) Ratio between tyre width to Rim width

6. 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

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

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

8. 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

9. What does the no: 14PR denotes in the tyre specification 9? x 14 - 14PR?

- A) Shoulder width B) Bead circle dia
C) Ply rating (Correct) D) Tyre thickness

10. How the tyre is specified?

- A) Shoulder width, Bead circle dia. Ply rating (Correct)** B) Shoulder dia, Bead circle dia, Ply rating
C) Shoulder width, Tyre thickness D) Ply rating, tyre inner circle dia, shoulder width

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

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

12. Which advantage does not suit to wheel alignment?

- A) Minimise tyre wear B) Reduce driver effort
C) Achieve self centering after turning **D) Achieve easy torque transmission (Correct)**

13. Which part of electronic power steering revert back to manual steering in case of failure in power steering?

- A) Solenoid valve B) Phase compensator
C) Fail safe relay (Correct) D) Current controller

14. Which device in electronic power steering converts the steering torque input and its direction in to voltage signals?

- A) Rotation sensor **B) Torque sensor (Correct)**
C) Hall effect sensor D) Temperature sensor

15. What is the role of recirculating balls in the integral power steering?

- A) Affect steering stability B) Prevent control in event of hydraulic failure
C) Combine high mechanical efficiency with smooth operation (Correct) D) Provide hard steering

16. 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

17. Which type of suspension spring can not transfer wheel guidance forces?

- A) Helical springs (Correct)** B) Coil springs
C) Leaf springs D) Compression springs

18. Which type of spring will have good load carrying capacity and do not have noise in the suspension system?

- A) Monoleaf springs B) Coil spring
C) Multiple - leaf spring (Correct) D) Fibre composite springs

19. 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**

20. Why light weight cars use low steering ratio?

- A) To obtain low steering effect **B) To obtain large steering effect**
C) To obtain constant steering effect (Incorrect) D) To obtain no steering effect

21. 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

22. Which type of shock absorber is easy for replacement and handling?

- A) Vane type B) Piston type
C) Mechanical type **D) Telescopic type (Correct)**

23. 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

24. 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%

25. 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

26. 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

27. What will be the effect of negative scrub radius?

- A) Wheel is caused to toe - out B) Wheel is kept in straight position
C) The tyre centre portion wear out **D) Wheel is caused to toe - in (Correct)**

28. 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

29. Which factor affecting suspension?

- A) Damaged chassis frame **B) Wornout spring (Correct)**
C) More shocks, uncomfortable riding D) Abnormal tyre wear

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

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

31. Why tyre wear found abnormal in the vehicle?

- A) Loose wheel nut B) Improper linkage adjustment
C) Improper toe-in and toe-out (Correct) D) Improper tyre pressure (Incorrect)

32. What causes 'Air suction' in pump of hydraulic power steering system?

- A) Noise (Correct)** B) High fluid level
C) Low pressure D) Steering wheel play

33. 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)

34. Which principle is applicable for hydraulic brakes?

- A) Pascal's law (Correct)** B) Boyle's law
C) Newton's law of motion D) Hooke's law

35. What is the purpose of brake proportioning valves in the braking system?

A) Reduces brake pedal effort (Incorrect)

C) Provide balanced braking

B) Increase braking efficiency

D) Prevent front wheel lockup

36. How the EBD (Electronic Brake Force Distribution) failure indicated to the driver?

A) Peep sound in the cabin

B) Indication lamp the dash board (Incorrect)

C) Glowing the parking lamp

D) Flickering the tail lamp

37. What is the advantage of TCS/ELSD brake circuit of wheel?

A) Reduce the pressure at wheel cylinder (Incorrect)

C) Automatic adjustment of engine torque to the grip rates

B) Reduce fluid pressure

D) Avoid wheel lockup by releasing pressure