ITI Quiz - 07-Feb-2026 06:29 PM

Q. ID: ITISKILL1308WG

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Answer Key

Duration: 30 Mins **Total Marks: 76** **Q.ID: ITISKILL1308WG**

1. Why tyre wear found abnormal in the vehicle?

A) Loose wheel nut
B) Improper tyre pressure
C) Improper tol-in and tol - out
D) Improper linkage adjustment

Answer: C) Improper tol-in and tol - out

2. What is the cause of 'Wheel wobbling'?

A) King pin wornout
B) Drop in pressure
C) Improper tyre pressure
D) Wrong hose size

Answer: A) King pin wornout

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

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

Answer: B) Incorrect toe - in and toe - out

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

A) Mechanical type
B) Piston type
C) Telescopic type
D) Vane type

Answer: C) Telescopic type

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

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

Answer: D) Combine high mechanical efficiency with smooth operation

6. What is the use of compact spare tyres?

A) Used for high altitude
B) Withstand heavy load
C) Withstand high temperature
D) Used for breakdown

Answer: D) Used for breakdown

7. Which facor affecting suspension?

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

Answer: B) Wornout spring

8. What is the reason of faster wear out of tyre edges?

A) Un equal load distribution
B) Under inflated tyre
C) Over inflated tyre
D) Defective suspension system

Answer: B) Under inflated tyre

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

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

Answer: D) Maintain directional stability and control

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

A) Flow control valve
B) Torsion bar
C) Rotary valve
D) Unloading valve

Answer: D) Unloading valve

11. Which is not the benefit of power steering?

A) Absolute control during driving
B) Positive breaking system
C) Effort less steering
D) Quick response

Answer: B) Positive breaking system

12. Where the tyre pressure sensor secured in the wheel assembly?

A) Secured in the wheel hub
B) Secured in the tyre outer edges
C) Bolted to metal valve
D) Bolted to the rim centre

Answer: C) Bolted to metal valve

13. Which type of suspension spring can not transfer wheel guidence forces?

A) Compression springs
B) Leaf springs
C) Helical springs
D) Coil springs

Answer: C) Helical springs

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

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

Answer: D) Percentage ratio of tyre height to tyre width

15. Why light weight cars use low steering ratio?

A) To obtain large steering effect
B) To obtain low steering effect
C) To obtain no steering effect
D) To obtain constant steering effect

Answer: A) To obtain large steering effect

16. What is the disadvantage of independent suspension system?

A) Spring weight is more
B) Vibration damping is less effective
C) More maintanance cost
D) Shocks transmitted from one wheel to other

Answer: C) More maintanance cost

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

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

Answer: B) Band axle beam

18. Which angle helps in self centering of wheels after negotiating a turn?

A) Included angle
B) Castor angle
C) Camber angle
D) King pin inclination

Answer: D) King pin inclination

19. What is the purpose of air suspension?

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

Answer: A) Used for leveling purpose

20. What is the advantage of coil spring?

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

Answer: A) Low space requirement

21. Which advantage does not suit to wheel alignment?

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

Answer: B) Achieve easy torque transmission

22. What is the purpose of beads and plys provided in the tyre?

A) Prevent tyre slip
B) Provide strength to tyre
C) Resist vibration
D) Provide grippness on the surface

Answer: B) Provide strength to tyre

23. Which part of coil spring allows angular movement of linkages?

A) Torsion bar
B) Stabiliser bar
C) Lower control arm
D) Ball joint

Answer: D) Ball joint

24. 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
D) Thread radious

Answer: C) Tyre width

25. What is the purpose of spokes provided in the wheel?

A) Provide directional stability of vehicle
B) Provide accurate rounds of rim
C) Suport the chassis frame of vehicle
D) Distribute pre load evenly

Answer: B) Provide accurate rounds of rim

26. How to rectify the defect of noise in hydraulic steering?

A) Replace the with new fluid
B) Replace the flow control valve
C) Fill fluid to correct level and bleed the system
D) Adjust the torsion bar linkage

Answer: C) Fill fluid to correct level and bleed the system

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

A) Under inflation
B) Improper caster
C) Over inflation
D) Improper camber

Answer: D) Improper camber

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

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

Answer: B) Improper wheel alignment

29. Which type of spring suspension responds quickly to road shocks? |

A) Helical spring
B) Compression spring
C) Coil spring
D) Transverse spring

Answer: C) Coil spring

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

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

Answer: B) Wrong flow control valve setting

31. What is the effect of weak suspension?

A) Directional unstability of vehicle
B) Unequal weight distribution of weight
C) Vibration damping is more effective
D) Carrying excessive payload of vehicle

Answer: A) Directional unstability of vehicle

32. Which steering system will provide assistance even when the engine is not running?

A) Manual steering
B) Integral power steering
C) Electronic power steering
D) Linkage power steering

Answer: C) Electronic power steering

33. Which is not the function of suspension system?

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

Answer: C) It increase steering stability

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

A) 02:03
B) 01:02
C) 02:01
D) 02:01

Answer: B) 01:02

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

A) This is simple arrangement
B) Spring weight is less
C) Maintance cost is less
D) Shocks are transmitted from one wheel to other

Answer: B) Spring weight is less

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

A) Oberve shocks and vibration
B) Provide cusioning effect on the vehicle
C) Increase the tyre life
D) Provide positive road grip

Answer: C) Increase the tyre life

37. Which type of suspension spring made of fibre glass, laminated and bonded together by tough polyster resins?

A) Multiple leaf springs
B) Coil springs
C) Fiber composite springs
D) Monoleaf springs

Answer: C) Fiber composite springs

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

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

Answer: A) Vehicle pull to one side wheel

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

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

Answer: B) 11 : 1 to 24 : 1

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

A) Rim width
B) Tyre width
C) Thread width
D) Thread radious

Answer: D) Thread radious

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

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

Answer: C) 9 - 10 Degree

42. Which device in the air suspension system observe vibration of low amplitude and high frequency?

A) Shock absorber
B) Leaf spring
C) Air bags in the system
D) Suspension spring

Answer: A) Shock absorber

43. What will effect in case of over inflated tyres?

A) Tyre will wear out at edges
B) Tyre will wearout at centre
C) Tyre will crack at centre
D) Tyre will crack at edges

Answer: B) Tyre will wearout at centre

44. 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) Torsion bar suspension
C) Coil spring suspension
D) Strut type suspension

Answer: D) Strut type suspension

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

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

Answer: B) Betweeen frame and vehicle axle

46. What will be the result of improper brake adjustment?

A) Steering wheel play
B) Wheel wobbling
C) Vehicle pulling to one side
D) Hard steering

Answer: C) Vehicle pulling to one side

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

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

Answer: D) Rotary control valve

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

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

Answer: B) Multiple - leaf spring

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

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

Answer: B) Ply rating

50. What is the cause of noise in steering?

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

Answer: D) Presence of air in the fluid

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

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

Answer: A) Holds the tyre in correct position

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

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

Answer: A) Protect chassis frame from heavy jerk

53. How the tyre is specified?

A) Ply rating, tyre inner circle dia, shoulder width
B) Shoulder dia, Bead circle dia, Ply rating
C) Shoulder width, Boad circle dia. Ply rating
D) Shoulder width, Tyre thickness

Answer: C) Shoulder width, Boad circle dia. Ply rating

54. What is the disadvantage of excessive positive camber in the wheel aslignment?

A) Tyre bleeding wire wear out
B) Tyre thread wear out
C) Tyre outer edge will wearout fast
D) Tyre centre will wearout

Answer: C) Tyre outer edge will wearout fast

55. What is the advantage of electronic power steering?

A) Less ocupation of space
B) Number of components are less
C) Compact in size
D) Energy being consumed only while steering

Answer: D) Energy being consumed only while steering

56. What is the reason of steering wheel play excess?

A) Drop in pressure
B) Wornout sealing rings
C) Low oil level
D) Improper pre load defective steering

Answer: D) Improper pre load defective steering

57. What is the advantage of using run flat tyres?

A) Resist vibration
B) Eliminate head for spare tyre and jack
C) Less cost and maintance
D) Provide equal distribution of load

Answer: B) Eliminate head for spare tyre and jack

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

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

Answer: C) Fail safe relay

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

A) Steering wheel play
B) Noise
C) High fluid level
D) Low pressure

Answer: B) Noise

60. What is the impact of larger scrub radious?

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

Answer: C) Unequal braking on the front wheel

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

A) Disc wheel
B) Wire wheel
C) Split wheel
D) Heavy vehicle

Answer: C) Split wheel

62. Which type of shock absorber maintain vehicle ride at a pre - set level according to the load placed over the rear axle?

A) Mechanical shock absorber
B) Gas pressurised shock absorber
C) Automatic load adjustable shock absorber
D) Hydraulic shock absorber

Answer: C) Automatic load adjustable shock absorber

63. What is the advantage of using non reactive suspension arrangement on multi-axle vehicles?

A) Better riding comfort
B) Good braking efficiency in both rear wheels
C) Prevention of ratting
D) Increased spring life

Answer: B) Good braking efficiency in both rear wheels

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

A) Hall effect sensor
B) Torque sensor
C) Rotation sensor
D) Temperature sensor

Answer: B) Torque sensor

65. Which type of shock absorber absorbs shocks with the help of friction disc and spring?

A) Electrical type
B) Mechanical type
C) Hydraulic type
D) Pneumatic type

Answer: B) Mechanical type

66. Which rating indicate the braking capablities of the tire to the consumer?

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

Answer: C) Traction rating

67. What will be the effect of negative scrub radious?

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

Answer: D) Wheel is caused to toe - in

68. Why vibration damper are not used inside the helical spring?

A) Fitting and removing time consuming
B) No effect on load carrying capacity
C) Not economical
D) Possibility of stuck in one position

Answer: A) Fitting and removing time consuming

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

A) To observe braking and driving torque
B) To take the uneven load
C) To provide cusioning effect
D) To distribute the load evanly

Answer: A) To observe braking and driving torque

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

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

Answer: D) Difference in pressure exceeds 30%

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

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

Answer: D) Vibration damping is less effective

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

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

Answer: C) Inner edge of tyre wear out faster

73. How the tyre height is calculated?

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

Answer: C) Tyre outer dia - Rim dia

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

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

Answer: A) 120 to 125 PSI

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

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

Answer: D) 20% less than manual steering

76. Which system provided between axles and chassis frame?

A) Cooling system
B) Braking system
C) Suspension system
D) Steering system

Answer: C) Suspension system