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ITI Quiz - 20-Feb-2026 07:25 PM

Q. ID: ITISKILL9295WU

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Answer Key

Duration: 120 Mins **Total Marks: 76** **Q.ID: ITISKILL9295WU**

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

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

Answer: A) Maintain directional stability and control

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

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

Answer: B) Improper wheel alignment

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

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

Answer: D) Noise

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

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

Answer: B) Traction rating

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

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

Answer: A) Unloading valve

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

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

Answer: B) Difference in pressure exceeds 30%

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

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

Answer: A) Multiple - leaf spring

8. Which is not the function of suspension system?

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

Answer: A) It increase steering stability

9. 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 distribute the load evanly
C) To provide cusioning effect
D) To observe braking and driving torque

Answer: D) To observe braking and driving torque

10. What is the cause of noise in steering?

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

Answer: A) Presence of air in the fluid

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

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

Answer: D) Tyre will wearout at centre

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

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

Answer: A) Strut type suspension

13. Why light weight cars use low steering ratio?

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

Answer: C) To obtain large steering effect

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

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

Answer: B) Improper camber

15. Which part of electronic power steering revert back to

manual steering in case of failure in power steering?

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

Answer: D) Fail safe relay

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

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

Answer: D) Electronic power steering

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

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

Answer: B) Thread radious

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

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

Answer: D) Shock absorber

19. Which is not the benefit of power steering?

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

Answer: C) Positive breaking system

20. What is the advantage of electronic power steering?

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

Answer: B) Energy being consumed only while steering

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

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

Answer: D) King pin inclination

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

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

Answer: C) Tyre outer edge will wearout fast

23. What is the advantage of coil spring?

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

Answer: B) Low space requirement

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

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

Answer: C) Improper pre load defective steering

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

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

Answer: B) Inner edge of tyre wear out faster

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

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

Answer: D) Good braking efficiency in both rear wheels

27. Which system provided between axles and chassis frame?

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

Answer: C) Suspension system

28. What is the impact of larger scrub radious?

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

Answer: B) Unequal braking on the front wheel

29. How the tyre is specified?

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

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

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

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

Answer: D) Provide strength to tyre

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

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

Answer: D) 120 to 125 PSI

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

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

Answer: D) Band axle beam

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

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

Answer: C) 20% less than manual steering

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

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

Answer: A) Under inflated tyre

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

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

Answer: C) Telescopic type

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

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

Answer: A) Helical springs

37. What is the disadvantage of independent suspension system?

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

Answer: D) More maintanance cost

38. Why tyre wear found abnormal in the vehicle?

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

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

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

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

Answer: D) Spring weight is less

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

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

Answer: A) Combine high mechanical efficiency with smooth operation

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

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

Answer: A) Rotary control valve

42. What is the use of compact spare tyres?

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

Answer: B) Used for breakdown

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

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

Answer: A) Fitting and removing time consuming

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

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

Answer: A) Bolted to metal valve

45. 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

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

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

Answer: A) Split wheel

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

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

Answer: B) Vehicle pull to one side wheel

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

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

Answer: C) Wheel is caused to toe - in

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

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

Answer: A) 01:02

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

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

Answer: B) Fiber composite springs

51. Which facor affecting suspension?

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

Answer: D) Wornout spring

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

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

Answer: A) Automatic load adjustable shock absorber

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

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

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

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

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

Answer: D) Torque sensor

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

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

Answer: B) Protect chassis frame from heavy jerk

56. Which advantage does not suit to wheel alignment?

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

Answer: B) Achieve easy torque transmission

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

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

Answer: D) Vibration damping is less effective

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

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

Answer: C) Eliminate head for spare tyre and jack

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

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

Answer: A) Betweeen frame and vehicle axle

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

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

Answer: A) Coil spring

61. What is the purpose of air suspension?

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

Answer: D) Used for leveling purpose

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

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

Answer: B) Ball joint

63. What is the effect of weak suspension?

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

Answer: D) Directional unstability of vehicle

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

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

Answer: B) Mechanical type

65. How the tyre height is calculated?

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

Answer: A) Tyre outer dia - Rim dia

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

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

Answer: D) King pin wornout

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

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

Answer: D) 9 - 10 Degree

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

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

Answer: A) Vehicle pulling to one side

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

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

Answer: D) Ply rating

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

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

Answer: B) Holds the tyre in correct position

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

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

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

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

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

Answer: A) Provide accurate rounds of rim

73. 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

Answer: B) Wrong flow control valve setting

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

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

Answer: C) Increase the tyre life

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

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

Answer: D) 11 : 1 to 24 : 1

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

A) Tyre width
B) Thread radious
C) Tyre outer diameter
D) Tyre height

Answer: A) Tyre width