ITI Quiz - 04-Feb-2026 07:11 PM

Q. ID: ITISKILL0468UH

February 2026 | **iti** | Question Paper

Duration: 180 Mins | **Total Marks: 76** | **ID: ITISKILL0468UH**

Student Name: _____ Roll No: _____

1. What is the disadvantage of independent suspension system?

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

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

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

3. 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) Provide hard steering
D) Affect steering stability

4. What is the advantage of electronic power steering?

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

5. 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) Percentage ratio of tyre height to tyre width
D) Ratio between tyre height to tyre dia

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

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

7. 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) Hydraulic shock absorber
C) Gas pressurised shock absorber
D) Mechanical shock absorber

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

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

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

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

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

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

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

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

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

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

13. Why tyre wear found abnormal in the vehicle?

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

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

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

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

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

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

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

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

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

18. How the tyre height is calculated?

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

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

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

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

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

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

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

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

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

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

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

24. Which is not the benefit of power steering?

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

25. What is the use of compact spare tyres?

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

26. 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

27. What is the purpose of air suspension?

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

28. What is the impact of larger scrub radious?

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

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

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

30. 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

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

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

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

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

33. What is the advantage of coil spring?

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

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

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

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

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

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

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

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

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

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

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

39. How the tyre is specified?

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

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

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

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

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

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

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

43. 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

44. Which is not the function of suspension system?

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

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

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

46. 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 observe braking and driving torque
D) To provide cusioning effect

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

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

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

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

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

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

50. Why light weight cars use low steering ratio?

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

51. 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

52. What is the cause of noise in steering?

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

53. 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

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

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

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

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

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

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

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

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

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

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

59. Which advantage does not suit to wheel alignment?

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

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

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

61. Which system provided between axles and chassis frame?

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

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

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

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

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

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

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

65. Which facor affecting suspension?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

A) Thread radious B) Tyre height

C) Tyre outer diameter
D) Tyre width

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

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

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

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

75. What is the effect of weak suspension?

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

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

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