ITI Quiz - 07-Feb-2026 06:33 PM

Q. ID: ITISKILL7343ZU

February 2026 Question Paper

Duration: 50 Mins **Total Marks: 76** **ID: ITISKILL7343ZU**

Student Name: _____ Roll No: _____

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

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

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

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

3. Which system provided between axles and chassis frame?

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

4. 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

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

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

6. 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

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

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

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

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

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

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

10. 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) Monoleaf springs
D) Coil spring

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

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

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

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

13. 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, Tyre thickness
D) Shoulder width, Boad circle dia. Ply rating

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

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

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

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

16. 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

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

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

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

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

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

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

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

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

21. What is the purpose of air suspension?

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

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

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

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

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

24. Which is not the function of suspension system?

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

25. 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) Coil spring suspension
D) Torsion bar suspension

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

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

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

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

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

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

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

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

30. Why light weight cars use low steering ratio?

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

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

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

32. How the tyre height is calculated?

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

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

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

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

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

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

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

36. 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

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

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

38. What is the disadvantage of independent suspension system?

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

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

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

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

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

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

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

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

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

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

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

44. What is the impact of larger scrub radious?

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

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

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

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

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

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

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

48. Which is not the benefit of power steering?

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

49. What is the advantage of coil spring?

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

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

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

51. 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 abnormal vibration
D) Reduce tyre wear

52. What is the effect of weak suspension?

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

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

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

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

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

55. 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

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

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

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

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

58. 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 air pressure regulator and front axle
D) Between high control valve and frame

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

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

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

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

61. 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 exceeds 30%
D) Difference in pressure more than 10%

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

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

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

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

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

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

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

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

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

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

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

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

68. What is the cause of noise in steering?

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

69. What is the use of compact spare tyres?

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

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

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

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

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

72. What is the advantage of electronic power steering?

A) Compact in size

B) Energy being consumed only while steering

C) Number of components are less

D) Less ocupation of space

73. Which facor affecting suspension?

A) More shocks, uncomfortable riding

B) Abnormal tyre wear

C) Wornout spring

D) Damaged chassis frame

74. Why tyre wear found abnormal in the vehicle?

A) Improper tol-in and tol - out

B) Improper linkage adjustment

C) Loose wheel nut

D) Improper tyre pressure

75. Which advantage does not suit to wheel alignment?

A) Minimise tyre wear

B) Achieve self centering after turning

C) Reduce driver effort

D) Achieve easy torque transmission

76. 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