

February 2026

Answer Key

Duration: 30 Mins

Total Marks: 93

Q.ID: ITISKILL0907KX

1. Which device detect the driven wheel spin through sensor?

- A) TCS
- B) ECU
- C) ELSD
- D) EBD

Answer: B) ECU

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

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

Answer: B) Improper pre load defective steering

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

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

Answer: D) Vibration damping is less effective

4. Why light weight cars use low steering ratio?

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

Answer: A) To obtain large steering effect

5. Which device permits air to the air brake system?

- A) Hand control valve
- B) Spring brake actuator
- C) Brake valve
- D) System protection valve

Answer: C) Brake valve

6. What is the function of traction control system?

- A) Release the pressure to expansion tank
- B) Reduce the engine torque
- C) Reduce steering effort
- D) Prevent wheel spinning

Answer: D) Prevent wheel spinning

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

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

Answer: B) Unloading valve

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

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

Answer: C) Rotary control valve

9. 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

Answer: B) Directional unstability of vehicle

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

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

Answer: D) Split wheel

11. What is the advantage of coil spring?

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

Answer: A) Low space requirement

12. What is the function of EBD (Electronic Brake - Force Distribution) in anti lock brake system?

- A) It controls the slip of the rear wheel
- B) It increase brake pressure to the rear wheel
- C) It improve directional stability of vehicle
- D) It control the slip of the front wheel

Answer: A) It controls the slip of the rear wheel

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

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

Answer: B) Eliminate head for spare tyre and jack

14. 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) Band axle beam
- D) Tie rod loose fitting

Answer: C) Band axle beam

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

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

Answer: B) Mechanical type

16. What is the advantage of electronic power steering?

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

Answer: D) Energy being consumed only while steering

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

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

Answer: C) Spring weight is less

18. 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

Answer: C) Electronic power steering

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

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

Answer: D) Improper camber

20. What is the disadvantage of independent suspension system?

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

Answer: C) More maintenance cost

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

- A) Unequal load distribution B) Over inflated tyre
C) Under inflated tyre D) Defective suspension system

Answer: C) Under inflated tyre

22. Which rating indicates the braking capabilities of the tyre to the consumer?

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

Answer: A) Traction rating

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

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

Answer: B) Multiple - leaf spring

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

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

Answer: B) Maintain directional stability and control

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

- A) Reduce the pressure at wheel cylinder B) Avoid wheel lockup by releasing pressure
C) Automatic adjustment of engine torque to the grip D) Reduce fluid pressure rates

Answer: C) Automatic adjustment of engine torque to the grip rates

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

- A) Tyre outer diameter B) Tyre width
C) Tyre height D) Thread radius

Answer: B) Tyre width

27. What is the material used to make brake drum?

- A) Stainless steel B) High speed steel
C) Special type cast iron D) High carbon steel

Answer: C) Special type cast iron

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

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

Answer: A) Shock absorber

29. What is the use of compact spare tyres?

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

Answer: C) Used for breakdown

30. What is the brake pedal free play range permitted while adjusting?

- A) 8 mm to 10 mm B) 13 mm to 18 mm
C) 6 mm to 12 mm D) 4 mm to 8 mm

Answer: C) 6 mm to 12 mm

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

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

Answer: C) Wrong flow control valve setting

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

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

Answer: D) Protect chassis frame from heavy jerk

33. 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 cushioning effect D) To distribute the load evenly

Answer: A) To observe braking and driving torque

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

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

Answer: A) Improper wheel alignment

35. 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) Strut type suspension
C) Torsion bar suspension D) Conventional suspension

Answer: B) Strut type suspension

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

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

Answer: C) Provide accurate rounds of rim

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

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

Answer: D) Ply rating

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

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

Answer: D) 9 - 10 Degree

39. What causes abnormal tyre wear, tyre slip and poor

steering stability?

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

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

40. 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 D) 02:03

Answer: C) 01:02

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

- A) Indication lamp the dash board B) Flickering the tail lamp
C) Peep sound in the cabin D) Glowing the parking lamp

Answer: D) Glowing the parking lamp

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

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

Answer: B) Between frame and vehicle axle

43. What is the precautionary measures to be adapted while removing secondary piston to prevent damage

- A) Remove the stopper bolt before B) Remove the circlip before
C) Remove the return spring before D) Remove the retaining spring before

Answer: A) Remove the stopper bolt before

44. 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) Automatic load adjustable shock absorber
C) Gas pressurised shock absorber D) Mechanical shock absorber

Answer: B) Automatic load adjustable shock absorber

45. Which is not the function of suspension system?

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

Answer: B) It increase steering stability

46. What is the permitted brake pedal travel in the hydraulic brake system?

- A) 6 to 12 mm B) 7 to 12 mm
C) 9 to 12 mm D) 2 to 12 mm

Answer: B) 7 to 12 mm

47. Why tyre wear found abnormal in the vehicle?

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

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

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

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

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

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

- A) Cracks developed in the tyre tread B) Centre of 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

50. Which system provided between axles and chassis frame?

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

Answer: D) Suspension system

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

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

Answer: A) Holds the tyre in correct position

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

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

Answer: C) Combine high mechanical efficiency with smooth operation

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

- A) Percentage ratio 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

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

54. What is the material constituent of semi metallic brake lining?

- A) Fine polished steel wool B) Aluminium oxide
C) Carbon composite D) Carbon fiber

Answer: A) Fine polished steel wool

55. 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

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

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

Answer: D) Vehicle pulling to one side

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

- A) Thread width B) Tyre width
C) Rim width D) Thread radius

Answer: D) Thread radius

58. What is the purpose of air suspension?

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

Answer: B) Used for leveling purpose

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

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

Answer: A) King pin inclination

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

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

Answer: A) Good braking efficiency in both rear wheels

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

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

Answer: C) 11 : 1 to 24 : 1

62. How the tyre height is calculated?

- A) Tyre outer dia - Rim dia B) Tyre width + Bead circle dia

C) Thread width + Tyre width D) Rim dia - tyre outer dia

Answer: A) Tyre outer dia - Rim dia

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

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

Answer: A) Fitting and removing time consuming

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

- A) Observe shocks and vibration
B) Increase the tyre life
C) Provide cushioning effect on the vehicle
D) Provide positive road grip

Answer: B) Increase the tyre life

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

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

Answer: C) Wheel is caused to toe - in

66. How the tyre is specified?

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

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

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

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

Answer: A) Fiber composite springs

68. Which factor affecting suspension?

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

Answer: D) Wornout spring

69. Which advantage does not suit to wheel alignment?

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

Answer: A) Achieve easy torque transmission

70. What is the purpose of 'G' sensor

- A) Locking pressure inside wheel cylinder
B) Reduce pressure at wheel cylinder

C) Measuring deceleration rate of vehicle
D) Detect wheel lock up condition

Answer: C) Measuring deceleration rate of vehicle

71. Which material is used for brake rotors and brake pads for aircraft and racing cars?

- A) Asbestos
B) Copper, brass, steel
C) Sintered alloy
D) Carbon fiber reinforced carbon composite

Answer: D) Carbon fiber reinforced carbon composite

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

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

Answer: B) Bolted to metal valve

73. What is the cause of noise in steering?

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

Answer: B) Presence of air in the fluid

74. What is the impact of larger scrub radius?

- 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

Answer: D) Unequal braking on the front wheel

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

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

Answer: A) Difference in pressure exceeds 30%

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

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

Answer: A) King pin wornout

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

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

Answer: B) Tyre will wearout at centre

78. What is the disadvantage of excessive positive camber in the wheel asignment?

- A) Tyre centre will wearout
B) Tyre bleeding wire wear out

- C) Tyre outer edge will wearout fast D) Tyre thread wear out

Answer: C) Tyre outer edge will wearout fast

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

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

Answer: D) 20% less than manual steering

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

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

Answer: B) Noise

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

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

Answer: A) Ball joint

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

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

Answer: C) Provide strength to tyre

83. Which is not the benefit of power steering?

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

Answer: C) Positive breaking system

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

- A) Prevent front wheel lockup B) Increase braking efficiency
C) Reduces brake pedal effort D) Provide balanced braking

Answer: D) Provide balanced braking

85. Which principle is applicable for hydraulic brakes?

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

Answer: A) Pascal's law

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

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

Answer: C) Telescopic type

87. Where the non-return valve is located in the centre feed master cylinder?

- A) On the reservoir B) On the pistons head
C) On the cylinder head D) On the bypass port

Answer: B) On the pistons head

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

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

Answer: D) Vehicle pull to one side wheel

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

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

Answer: B) Helical springs

90. What is the binding material used in organic brake lining?

- A) Resin B) Mica
C) Fibre glass D) Asbestos

Answer: A) Resin

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

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

Answer: B) Fail safe relay

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

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

Answer: A) Torque sensor

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

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

Answer: B) 120 to 125 PSI