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Q. ID: ITISKILL0276KS

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Duration: 30 Mins | **Total Marks: 93** | **Q.ID: ITISKILL0276KS**

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

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

Answer: D) Fitting and removing time consuming

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

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

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

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

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

Answer: B) Telescopic type

4. Why tyre wear found abnormal in the vehicle?

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

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

5. 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

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

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

Answer: C) Remove the stopper bolt before

7. 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

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

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

Answer: B) Vibration damping is less effective

9. 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

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

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

Answer: B) Electronic power steering

11. 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) Fail safe relay
D) Solenoid valve

Answer: C) Fail safe relay

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

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

Answer: A) Unloading valve

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

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

Answer: D) Rotary control valve

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

A) Tyre width
B) Thread radious

C) Tyre height
D) Tyre outer diameter

Answer: A) Tyre width

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

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

Answer: B) Traction rating

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

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

Answer: D) On the pistons head

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

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

Answer: A) Provide balanced braking

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

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

Answer: A) Provide accurate rounds of rim

19. How the tyre is specified?

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

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

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

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

Answer: C) Tyre outer edge will wearout fast

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

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

Answer: A) Vehicle pull to one side wheel

22. Which principle is applicable for hydraulic brakes?

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

Answer: C) Pascal's law

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

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

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

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

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

Answer: B) Torque sensor

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

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

Answer: D) Fine polished steel wool

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

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

Answer: A) Improper pre load defective steering

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

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

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

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

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

Answer: D) Band axle beam

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

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

Answer: B) Mechanical type

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

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

Answer: C) Tyre will wearout at centre

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

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

Answer: C) ECU

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

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

Answer: B) Combine high mechanical efficiency with smooth operation

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

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

Answer: C) 9 - 10 Degree

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

Answer: D) To observe braking and driving torque

35. What is the advantage of electronic power steering?

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

Answer: A) Energy being consumed only while steering

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

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

Answer: D) Holds the tyre in correct position

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

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

Answer: A) Vehicle pulling to one side

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

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

Answer: A) Bolted to metal valve

39. How the tyre height is calculated?

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

Answer: D) Tyre outer dia - Rim dia

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

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

Answer: C) Helical springs

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

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

Answer: B) Improper wheel alignment

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

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

Answer: C) Fiber composite springs

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

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

Answer: B) Eliminate head for spare tyre and jack

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

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

Answer: B) King pin wornout

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

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

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

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

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

Answer: C) 6 mm to 12 mm

47. Why light weight cars use low steering ratio?

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

Answer: D) To obtain large steering effect

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

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

Answer: D) 20% less than manual steering

49. Which facor affecting suspension?

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

Answer: B) Wornout spring

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

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

Answer: B) Resin

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

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

Answer: A) Inner edge of tyre wear out faster

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

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

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

53. 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

Answer: A) 01:02

54. Which is not the function of suspension system?

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

Answer: C) It increase steering stability

55. What is the disadvantage of independent suspension system?

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

Answer: B) More maintanance cost

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

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

Answer: D) Multiple - leaf spring

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

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

Answer: A) Good braking efficiency in both rear wheels

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

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

Answer: C) Spring weight is less

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

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

Answer: A) Wheel is caused to toe - in

60. Which advantage does not suit to wheel alignment?

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

Answer: D) Achieve easy torque transmission

61. 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 20%
D) Difference in pressure more than 10%

Answer: B) Difference in pressure exceeds 30%

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

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

Answer: A) 7 to 12 mm

63. What is the effect of weak suspension?

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

Answer: C) Directional unstability of vehicle

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

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

Answer: B) Noise

65. Which system provided between axles and chassis frame?

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

Answer: A) Suspension system

66. 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

Answer: B) Presence of air in the fluid

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

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

Answer: A) Shock absorber

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

A) High speed steel
B) Special type castiron
C) High carbon steel
D) Stainless steel

Answer: B) Special type castiron

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

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

Answer: D) Increase the tyre life

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

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

Answer: C) Under inflated tyre

71. 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

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

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

Answer: A) Carbon fiber reinforced carbon composite

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

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

Answer: D) Glowing the parking lamp

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

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

Answer: D) Thread radious

75. What is the advantage of coil spring?

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

Answer: B) Low space requirement

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

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

Answer: D) Split wheel

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

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

Answer: A) 11 : 1 to 24 : 1

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

A) Transfer the load equaly
B) Provide steering control stability

C) Protect chassis frame from heavy jerk
D) Transfer pay load smoothly

Answer: C) Protect chassis frame from heavy jerk

79. 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

80. What is the use of compact spare tyres?

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

Answer: C) Used for breakdown

81. What is the impact of larger scrub radious?

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

Answer: A) Unequal braking on the front wheel

82. 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) Wornout sealing ring
D) Low oil level

Answer: B) Wrong flow control valve setting

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

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

Answer: A) Ball joint

84. What is the function of traction control system?

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

Answer: A) Prevent wheel spinning

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

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

Answer: B) Automatic load adjustable shock absorber

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

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

Answer: C) Coil spring

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

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

Answer: C) Improper camber

88. What is the purpose of 'G' sensor

A) Locking pressure inside wheel cylinder
B) Detect wheel lock up condition
C) Measuring deceleration rate of vehicle
D) Reduce pressure at wheel cylinder

Answer: C) Measuring deceleration rate of vehicle

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

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

Answer: B) Betweeen frame and vehicle axle

90. 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

Answer: D) Strut type suspension

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

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

Answer: B) Brake valve

92. What is the purpose of air suspension?

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

Answer: C) Used for leveling purpose

93. Which is not the benefit of power steering?

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

Answer: C) Positive breaking system