

## FINAL ANSWER KEY

Question 21/2024/OL

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Exam: Driver cum Mechanic

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Department Technical Education

Question1:-Radiation and vibration are belongs to ?

A:-Physical hazards

B:-Chemical hazards

C:-Physiological hazards

D:-Psychological hazards

Correct Answer:- Option-A

Question2:-PPE stands for ?

A:-Permanent Protection Equipment

B:-Physical Protection Equipment

C:-Proper Protection Equipment

D:-Personal Protective Equipment

Correct Answer:- Option-D

Question3:-What is the point angle of Centre punch ?

A:-60°

B:-90°

C:-30°

D:-45°

Correct Answer:- Option-B

Question4:-Which tool is used to assemble piston into cylinder ?

A:-Piston ring remover

B:-Piston ring compressor

C:-Coil spring compressor

D:-Torque wrench

Correct Answer:- Option-B

Question5:-Which measuring tool is suitable for both Internal, External and Depth measurement ?

A:-Depth Gauge

B:-Inside micro meter

C:-Bore gauge

D:-Vernier caliper

Correct Answer:- Option-D

Question6:-Pitch of the screw thread in Micro meter ?

A:-0.5 mm

B:-0.01 mm

C:-0.1 mm

D:-1 mm

Correct Answer:- Option-A

Question7:-Which drilling machine is used to drill multiple holes in one setting ?

A:-Radial drilling machine

B:-Pillar drilling machine

C:-Portable drilling machine

D:-Hand operated drilling machine

Correct Answer:- Option-A

Question8:-Multimeter is also known as

A:-Voltage meter

B:-Ammeter

C:-Micro meter

D:-VOM meter

Correct Answer:- Option-D

Question9:-Which engine having longer crank shaft ?

A:-V Type engine

B:-Radial engine

C:-Opposed engine

D:-Inline engine

Correct Answer:- Option-D

Question10:-Which type of engine having Inlet and Exhaust valves arranged in cylinder block ?

A:-I head engine

B:-F head engine

C:-L head engine

D:-OHC engine

Correct Answer:- Option-C

Question11:-What is bore ?

A:-Cylinder diameter

B:-Stroke length

C:-Stroke

D:-Crank throw

Correct Answer:- Option-A

Question12:-Which term, used to express engine efficiency ?

A:-Nm

B:-Percentage

C:-Kgcm<sup>2</sup>

D:-HP

Correct Answer:- Option-B

Question13:-Which piston is commonly used in two stroke engine ?

A:-Flat head piston

B:-Domed head piston

C:-Concave head piston

D:-Irregular head piston

Correct Answer:- Option-B

Question14:-The engine does not require valve operating mechanism is

A:-2 Stroke petrol engine

B:-4 Stroke petrol engine

C:-4 stroke diesel engine

D:-CI engine

Correct Answer:- Option-A

Question15:-Combustion take place at constant volume process in ?

A:-Petrol engine

B:-Diesel engine

C:-CI engine

D:-Duel cycle engine

Correct Answer:- Option-A

Question16:-Which type of valves used in SI engine ?

A:-Rotary valve

B:-Sleeve valve

C:-Butterfly valve

D:-Poppet valve

Correct Answer:- Option-D

Question17:-Which type of cylinder liner have direct contact with coolant ?

A:-Dry liner

B:-Wet liner

C:-Brake liner

D:-Clutch liner

Correct Answer:- Option-B

Question18:-Which type of bearing is used in crankshaft journals ?

A:-Roller

B:-Bush

C:-Shell

D:-Needle

Correct Answer:- Option-C

Question19:-The difference between major axis and minor axis of cylinder is known as

A:-Tapper

B:-Ovality

C:-Straightens

D:-Stroke

Correct Answer:- Option-B

Question20:-Which tool is used to tighten cylinder head bolt ?

A:-Double end spanner

B:-Pipe wrench

C:-Clyburn spanner

D:-Torque wrench

Correct Answer:- Option-D

Question21:-What is the reason for low oil pressure ?

A:-Oil leakage

B:-High oil level

C:-Clogged air filter

D:-High grade oil used

Correct Answer:- Option-A

Question22:-What is the reason for low power generation in engine ?

A:-Clutch slip

B:-Brake failure

C:-Tyre pressure low

D:-Clogged air filter

Correct Answer:- Option-D

Question23:-What is the result of oxidation of lubricating oil at high temperature ?

A:-Sludge

B:-Lacquer

C:-Oil dilution

D:-Crystallisation

Correct Answer:- Option-B

Question24:-What is the percentage of oil added to petrol in Petroil lubrication system ?

A:-50% to 60%

B:-25% to 30%

C:-10% to 15%

D:-2% to 3%

Correct Answer:- Option-D

Question25:-Which type of oil pump is mostly used with Overhead cam engines ?

A:-Crescent type

B:-Rotor type

C:-Vane type

D:-Plunger type

Correct Answer:- Option-A

Question26:-Which is not a reason for high oil pressure in lubrication system ?

A:-High viscosity

B:-Clogged oil gallery

C:-Oil dilution

D:-Stuck closed oil relief valve

Correct Answer:- Option-C

Question27:-Quick engine warming is obtained in \_\_\_\_\_ cooling system.

A:-Air

B:-Thermosyphon

C:-Pump circulation

D:-Oil

Correct Answer:- Option-A

Question28:-Pressure inside the radiator with a pressure cap is always \_\_\_\_\_

A:-Atmospheric pressure

B:-Higher than atmospheric pressure

C:-Lower than atmospheric pressure

D:-Vacuum pressure

Correct Answer:- Option-B

Question29:-An anti-freeze solution should have

- A:-Low specific heat capacity
- B:-High viscosity
- C:-High freezing point
- D:-High boiling pint

Correct Answer:- Option-D

Question30:-Engine over cooling may result due to

- A:-Thermostat stuck open
- B:-Thermostat stuck closed
- C:-Broken fan belt
- D:-Blocked radiator

Correct Answer:- Option-A

Question31:-To avoid surging of fuel inside the fuel tank \_\_\_\_\_ is provided.

- A:-Baffles
- B:-Air vent
- C:-Filler cap
- D:-Drain plug

Correct Answer:- Option-A

Question32:-The petrol fuel pump pumps the petrol into

- A:-Fuel tank
- B:-Float chamber
- C:-Fuel filter
- D:-Engine

Correct Answer:- Option-B

Question33:-Rich air-fuel mixture is generally required during

- A:-Idling
- B:-Acceleration
- C:-Starting
- D:-Cruising

Correct Answer:- Option-C

Question34:-An example of a 'Constant Vacuum' type carburettor is

- A:-Zenith carburettor
- B:-Carter carburettor
- C:-Solex carburettor
- D:-SU carburettor

Correct Answer:- Option-D

Question35:-Maruti 800 car uses \_\_\_\_\_ type of carburettor.

A:-Solex Mikuni

B:-Solex

C:-Zenith

D:-SU

Correct Answer:- Option-A

Question36:-Cone shaped extension on pintle type diesel nozzle provides the advantages of

A:-High pressure

B:-Self cleaning

C:-Increased atomisation

D:-All of the above

Correct Answer:- Option-B

Question37:-The component of fuel injection pump which helps to avoid dribbling of fuel at injector nozzle is \_\_\_\_\_

A:-Control rack

B:-Plunger

C:-Delivery valve

D:-Cam follower

Correct Answer:- Option-C

Question38:-In electronic fuel injection system the injection and ignition timing is determined on the basis of \_\_\_\_\_ sensor signals.

A:-Manifold absolute pressure

B:-Lambda sensor

C:-Intake air temperature

D:-Crank position

Correct Answer:- Option-D

Question39:-In CRDi the fuel feed pump delivery is controlled by \_\_\_\_\_

A:-Rail pressure sensor and ECU

B:-Manifold pressure sensor and ECU

C:-Cam position sensor and ECU

D:-ECM and Modulator

Correct Answer:- Option-A

Question40:-In a Solex carburettor the chance of occurring flatspot at extreme high speed is eliminated by

A:-Acceleration pump jet

B:-Economiser jet

C:-Tickler

D:-Strangler

Correct Answer:- Option-B

Question41:-The number of positive and negative plates contained in lead acid battery is \_\_\_\_\_

A:-Negative plate is one less than positive plate

B:-Negative plate is one more than positive plate

C:-Positive plate is equal to the negative plate

D:-Positive plates is one more than negative plate

Correct Answer:- Option-B

Question42:-A \_\_\_\_\_ is an electrochemical device consisting of two electrodes and an electrolyte.

A:-Ignition Coil

B:-Capacitor

C:-Cell

D:-Regulator

Correct Answer:- Option-C

Question43:-A discharged lead acid battery electrolyte is \_\_\_\_\_

A:-Dilute Sulphuric acid

B:-Lead sulphate

C:-Sulphuric acid

D:-Water

Correct Answer:- Option-D

Question44:-\_\_\_\_\_ is the specific gravity reading range of a fully charged lead acid battery.

A:-1.200 - 1.230

B:-1.240 - 1.250

C:-1.260 - 1.280

D:-1.110 - 1.140

Correct Answer:- Option-C

Question45:-Dwell angle means \_\_\_\_\_

A:-The time for which the contact points remain closed

B:-The distance between the cam lobes

C:-The time for which the contact points opened

D:-The length of Rotor

Correct Answer:- Option-A

Question46:-Which part in the Ignition system is step up the low voltage of battery



in to high voltage ?

A:-Distributor

B:-Ignition coil

C:-Condencer

D:-C.B points

Correct Answer:- Option-B

Question47:-Firing order of a four cylinder Inline engine is \_\_\_\_\_

A:-1-2-3-4

B:-1-3-2-4

C:-1-4-2-3

D:-1-3-4-2

Correct Answer:- Option-D

Question48:-\_\_\_\_\_ is the exact instant a spark is sent to the spark plug and is expressed in degrees of crankshaft rotation relative to TDC.

A:-Ignition advance

B:-Ignition timing

C:-Combustion

D:-Spark advance

Correct Answer:- Option-B

Question49:-\_\_\_\_\_ type of DC starter motor is generally used in automobiles.

A:-Series type

B:-Compound type

C:-Parallel type

D:-Star type

Correct Answer:- Option-A

Question50:-Solenoid switch is used in \_\_\_\_\_ circuit.

A:-Charging

B:-Headlight

C:-Ignition

D:-Starting

Correct Answer:- Option-D

Question51:-What is the function of over running clutch in the starting system ?

A:-Protect armature from damage

B:-Prevent sliding movement of pinion

C:-Operate the solenoid

D:-Drive the armature shaft

Correct Answer:- Option-A

Question52:-What is the material used to make diodes ?

- A:-Mica
- B:-Silicon
- C:-Alumina foil
- D:-Graphite

Correct Answer:- Option-B

Question53:-\_\_\_\_\_ type alternator is commonly used in automobiles.

- A:-Single phase
- B:-Three phase
- C:-Two phase
- D:-Direct current

Correct Answer:- Option-B

Question54:-In an alternator, the current is generated in the \_\_\_\_\_

- A:-Rotor
- B:-Stator
- C:-Rectifier
- D:-Voltage Regulator

Correct Answer:- Option-B

Question55:-Which of the following is also known as cardan shaft ?

- A:-Main shaft
- B:-Clutch shaft
- C:-Propeller shaft
- D:-Half shaft

Correct Answer:- Option-C

Question56:-In this types of final drive gear, the pinion axis of the gear is off set to the center line of the crown wheel.

- A:-Hypoid gear
- B:-Straight bevel
- C:-Spiral bevel
- D:-All of these

Correct Answer:- Option-A

Question57:-Increasing the diameter of the clutch driven plate will result

- A:-Reduce inertia
- B:-Increase inertia
- C:-Un even wear

D:-Reduce coefficient of friction

Correct Answer:- Option-B

Question58:-It is working on the principle of relative slip between the input and output member cells facing to each other

A:-Semi centrifugal clutch

B:-Centrifugal clutch

C:-Duel mass flywheel

D:-Fluid fly wheel

Correct Answer:- Option-D

Question59:-The amount of vortex flow is reduced, when the

A:-Turbine speed approaches the speed of impeller

B:-Turbine speed less

C:-Turbine stationary

D:-Impeller speed high

Correct Answer:- Option-A

Question60:-Which among the following is not a tractive resistance ?

A:-Air resistance

B:-Rolling resistance

C:-Gradient resistance

D:-None of these

Correct Answer:- Option-D

Question61:-The governor valve in the automatic transmission is driven by

A:-Engine vaccum

B:-Clutch

C:-Transmission output shaft

D:-Transmission input shaft

Correct Answer:- Option-C

Question62:-In a dual mass fly wheel, the clutch function is occurred between

A:-Primary mass and transmission

B:-Secondary mass and transmission

C:-Primary mass and engine

D:-Primary mass and secondary mass

Correct Answer:- Option-B

Question63:-What are the reason for humming noise from the rear axle ?

A:-Worn out bearing

B:-Worn out gear

C:-Excessive clearance between pinion and crown

D:-All of these

Correct Answer:- Option-D

Question64:-In this type of axle assembly, a single bearing is placed between the hub and the axle casing

A:-Semi floating

B:-Three quarter floating

C:-Full floating

D:-None of these

Correct Answer:- Option-B

Question65:-The amount of light passing through an area in one second is called

A:-Luminous flux

B:-Luminous intensity

C:-Brightness

D:-Illumination intensity

Correct Answer:- Option-A

Question66:-To limit the current during over loading in the power window circuit, one or more \_\_\_\_\_ switches are installed.

A:-Pressure

B:-Friction

C:-Thermal

D:-None of these

Correct Answer:- Option-C

Question67:-Expansion valve in the car air conditioning mounted at the

A:-Outlet side of the evaporator

B:-Inlet side of evaporator

C:-In the condenser

D:-Outlet side of condenser

Correct Answer:- Option-B

Question68:-The wiper arms in some types of windscreen wipers are always stop at the edge of the windscreen, irrespective of the instant switching off. This is achieved by means of a

A:-Toggle switch

B:-Thermal switch

C:-Limit switch

D:-Pressure switch

Correct Answer:- Option-C

Question69:-It is the most promising types of rechargeable and superior to other battery technologies in the terms of application to battery electric vehicle

A:-Lithium-Ion battery

B:-Lead-acid battery

C:-Nickel-Cadmium battery

D:-Nickel-Zinc battery

Correct Answer:- Option-A

Question70:-Find the power train architectures of a hybrid electric vehicle

A:-Power-Split hybrid

B:-Complex hybrid

C:-Series hybrid

D:-All of these

Correct Answer:- Option-D

Question71:-The oscillation of the suspension spring is controlled by \_\_\_\_\_

A:-Damper

B:-Shackle

C:-Helper spring

D:-Stabilizer bar

Correct Answer:- Option-A

Question72:-In the following, which component comes under "Unsprung weight" ?

A:-Engine

B:-Transmission system

C:-Steering Knuckle

D:-Frame

Correct Answer:- Option-C

Question73:-The energy stored per unit volume is almost \_\_\_\_\_ in the case of coil spring than the leaf spring

A:-Same

B:-Double

C:-Half

D:-One fourth

Correct Answer:- Option-B

Question74:-Tilt of the car wheel from vertical is \_\_\_\_\_

A:-Castor

B:-Camber

C:-King pin inclination

D:-Toe-in

Correct Answer:- Option-B

Question75:-If the castor angle of both side wheels are not equal, vehicle move \_\_\_\_\_

A:-straight

B:-no effect

C:-towards the higher castor side

D:-towards the lesser castor side

Correct Answer:- Option-D

Question76:-The oil used in Hydraulic power steering system is \_\_\_\_\_

A:-SAE 10 W

B:-SAE 40 W

C:-SAE 90

D:-SAE 140

Correct Answer:- Option-A

Question77:-Aspect ratio is the ratio of \_\_\_\_\_

A:-Tyre width and Tyre dia

B:-Tyre dia and Rim dia

C:-Tyre height and Tyre width

D:-Tyre height and Rim dia

Correct Answer:- Option-C

Question78:-Both side wear of a tyre is due to

A:-In correct castor

B:-Incorrect camber

C:-Over inflation

D:-Under inflation

Correct Answer:- Option-D

Question79:-To achieve maximum efficiency, the ratio of braking at the front and at the rear wheels should be

A:-50% at the front and 50% at rear

B:-60% at front and 40% at rear

C:-40% at front and 60% at rear

D:-20% at front and 80% at rear

Correct Answer:- Option-B

Question80:-Ply rating means

A:-Rated strength

B:-Number of plies

C:-Aspect ratio

D:-Under inflation

Correct Answer:- Option-A

Question81:-\_\_\_\_\_ means any goods carriage the gross vehicle weight of which, or a tractor or a road-roller the unladen weight of either of which, exceeds 12000 kilograms.

A:-Light motor vehicle

B:-Medium goods vehicle

C:-Heavy goods vehicle

D:-Heavy passenger vehicle

Correct Answer:- Option-C

Question82:-The motor vehicle with at least four wheels used for carrying passengers is called

A:-Category N

B:-Category L1

C:-Category L2

D:-Category M

Correct Answer:- Option-D

Question83:-Validity of learners licence

A:-30 days from the date of issue of the learners licence

B:-6 months from the date of issue of the learners licence

C:-3 months from the date of issue of the learners licence

D:-1 year from the date of issue of learners licence

Correct Answer:- Option-B

Question84:-International driving permit is issued by a licensing authority shall be in form

A:-Form 6A

B:-Form 5A

C:-Form 7

D:-Form 3

Correct Answer:- Option-A

Question85:-When a vehicle approaches an unguarded railway level crossing, before crossing it, the driver shall

A:-Sound horn and cross the track as fast as possible

B:-Wait till the train passes

C:-Stop the vehicle on the left side of the road, get down from the vehicle, go to railway track and ensure that the track is clear on both sides

D:-Wait for another vehicle to pass

Correct Answer:- Option-C

Question86:-Any motor vehicle used or adapted to be used for the carriage of passengers for hire or reward and includes a maxi cab, a motor cab, contract carriage and stage carriage, is known as

A:-Public service vehicle

B:-Private service vehicle

C:-Heavy goods vehicle

D:-Articulated vehicle

Correct Answer:- Option-A

Question87:-Grace period of tax payment of goods carriages ordinarily kept in the state is

A:-30 days from the date of commencement of the quarter

B:-45 days from the date of commencement of the quarter

C:-One month from the date of commencement of the quarter

D:-14 days from the date of commencement of the quarter

Correct Answer:- Option-C

Question88:-Where the road centre is marked with continuous yellow line the vehicle should

A:-Allow to overtake only through the right side of yellow line

B:-Cross the line only when overtaking a vehicle in front

C:-Reduce speed and proceed

D:-Not touch or cross the yellow line

Correct Answer:- Option-D

Question89:-While you are approaching an intersection where the yellow signal light is blinking you should

A:-Stop the vehicle and wait for green light to appear

B:-As there is no restriction proceed at the same speed

C:-Slow down the vehicle and may drive into the intersection or pedestrian crossing with caution after giving way to the pedestrians and vehicles which are already within the intersection

D:-Sound horn and proceed

Correct Answer:- Option-C

Question90:-Maximum distance allowed between towing and towed vehicles

A:-15 meters

B:-5 meters

C:-6 meters

D:-10 meters



Correct Answer:- Option-B

Question91:-Which of the following is/are correct ?

- (i) Where a road is divided by a longitudinal white solid line, driver shall not cross the white solid line.
- (ii) On a road having a single broken line along with a solid line, driver of the vehicle driving on the left of broken line can cross the broken line in order to overtake.
- (iii) On a road having a single broken line along with a solid line, driver of the vehicle driving on the left of solid line can cross the solid line in order to overtake.

A:-Only (i) and (ii)

B:-Only (i) and (iii)

C:-Only (ii) and (iii)

D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-A

Question92:-Which of the following is/are correct ?

- (i) A motor vehicle approaching a 'roundabout' shall choose the lane relevant to the direction of its further movement.
- (ii) While entering a 'roundabout', traffic already in the roundabout shall have the right of way.
- (iii) The driver shall use indicators when changing lanes within the roundabout.

A:-Only (i) and (ii)

B:-Only (ii) and (iii)

C:-Only (i) and (iii)

D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-D

Question93:-What is the use of 'dipstick' ?

A:-It is used to check the coolant level

B:-It is used to check the oil level

C:-It is used to check the brake fluid

D:-All of the above

Correct Answer:- Option-B

Question94:-Which of the following is the correct order of priority for emergency duty vehicles in the road ?

A:-Ambulance, Fire Service Vehicle, Police vehicle and Power Supply vehicle

B:-Ambulance, Police vehicle, Fire Service vehicle and Power Supply vehicle

C:-Fire Service vehicle, Ambulance, Police vehicle and Power Supply vehicle

D:-Fire Service vehicle, Ambulance, Power Supply vehicle and Police vehicle

Correct Answer:- Option-C

Question95:-MSM and PSL rule means

A:-Man - Signal - Mirror and Position - Speed - Light

B:-Mirror - Signal - Maneuver and Position - Speed - Look

C:-Mirror - Signal - Man and Position - Speed - Light

D:-Maneuver - Signal - Mirror and Position - Steering - Look

Correct Answer:- Option-B

Question96:-Maximum permissible speed for Heavy Goods Carriage on State Highways and Major District roads in Kerala

A:-75 km/hr

B:-70 km/hr

C:-65 km/hr

D:-60 km/hr

Correct Answer:- Option-C

Question97:-Which of the following is/are correct ?

(i) Maximum permissible speed for Heavy Passenger Vehicle on National Highway - Four Lane road in Kerala is 90 km/hr.

(ii) Maximum permissible speed for Heavy Passenger Vehicle on State Highway - Four Lane roads in Kerala is 85 km/hr.

(iii) Maximum permissible speed for Heavy passenger Vehicles on roads within city limit of Kerala is 50 km/hr.

A:-Only (i) and (ii)

B:-Only (i) and (iii)

C:-Only (ii) and (iii)

D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-B

Question98:-The minimum alcohol content in blood to constitute the offence under Section 185 (Drunken Driving) of Motor Vehicles Act is

A:-25 mg per 100 ml

B:-30 mg per 100 ml

C:-25 mg per 1000 ml

D:-30 mg per 1000 ml

Correct Answer:- Option-B

Question99:-Which of the following is/are correct ?

(i) 'FASTag' is mandatory for 'L' category vehicles

(ii) 'FASTag' is mandatory for 'M' category vehicles.

(iii) 'FASTag' is mandatory for 'N' category vehicles.

A:-Only (i) and (ii)

B:-Only (i) and (iii)

C:-Only (ii) and (iii)

D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-C

Question100:-Which of the following is/are correct ?

(i) Autorickshaw require 'PERMIT' to conduct service on the road.

- (ii) Ambulance require 'PERMIT' to conduct service on the road.
- (iii) Motor car require 'PERMIT' to conduct service on the road.

A:-Only (i)

B:-Only (ii)

C:-Only (iii)

D:-All of the above (i), (ii) and (iii)

Correct Answer:- Option-A