OPERATOR WATER AUTHORITY

EXAM DATE:24-06-2015

**1.Which of the following is not a part of primary circuit of ignition system?**

A.Battery

B.CB points

C.Ignition coils thick wire winding

**D.Spark plug**

Ans:D

**2.Insufficient clutch free pedal play causes:**

A.Difficulty in gear shifting

B.Dragging of clutch

**C.Clutch slipping**

D.Clutch spinning

Ans:C

**3.Double helical gears are known as:**

**A.Herring bone gear**

B.Spur gear

C.Bevel gear

D.Spiral gear

Ans:A

**4.Which of the following device can bring two gears rotating at different speeds to the same speed for smooth gear shifting?**

A.Throw out bearing

**B.Synchronizer**

C.Idle gear

D.Inter locking mechanism

Ans:B

**5.The type of lubrication system suitable for racing cars is:**

A.Wet sump lubrication system

B.Splash lubrication system

**C.Dry sump lubrication system**

D.Petrol lubrication system

Ans:C

**6.If the lock to lock steering wheel rotation is four turns and the front wheel movement is 60 degrees,what is the steering ratio?**

A.15:1

B.18:1

**C.24:1**

D.21:1

Ans:C

**7.The effect of carbon deposits on the cylinder head inside the combustion chamber is:**

A.Increased delay period

B.Increased fuel economy

C.Reduced –compression ratio and pre-ignition

**D.Increased compression ratio and pre-ignition**

Ans:D

**8.Which among the following maintains a constant level of petrol in float chamber?**

A.Petrol main jet

**B.Float and needle valve**

C.Float and throttle valve

D.Choke valve

Ans:B

**9.The time duration,given in degrees of distributor rotation that the CB points remain closed between successive opening is:**

**A.Dwell**

B.Camber angle

C.Included angle

D.Overlap period

Ans:A

**10.The engine power transfer mechanism that combines a transmission assembly and differential assembly in a single unit is known as:**

A.Multi axie mechanism

B.Free wheel mechanism

C.Transfer case

**D.Trans axle mechanism**

Ans:D

**11.Which among the following is not a part of suspension system?**

A.Trailing link

**B.Tie rod**

C.Torsion bar

D.Anti roll bar

Ans:B

**12.The stub axle is connected to the front main axle beam by means of:**

A.Shackle pin

B.Wrist pin

**C.King pin**

D.Tie rod

Ans:C

**13.The distance between the centre of front wheel at straight ahead position and the centre of rear wheel is known as:**

A.Wheel track

B.Thrust

**C.Wheel base**

D.Toe-in of the wheels

Ans:C

**14.”External pressure applied upon a confined fluid is transmitted uniformly in all directions”.This law is:**

**A.Pascal’s law**

B.Boyle’s law

C.Charl’s law

D.Avagadro’s law

Ans:A

**15.Which of the following is not a possible cause of engine overheating?**

A.Brake binding

B.Fan belt slipping

C.Oil with less viscosity

**D.Over inflated tyre**

Ans:D

**16.The narrow space in the cylindrical air horn of the Carburettor through which the air passes is:**

A.Float chamber

**B.Ventuary**

C.Mixing chamber

D.None of the above

Ans:B

**17.Major constituent of CNG (Compressed Natual Gas)is:**

A.Butane

B.Propane

C.Ethane

**D.Methane**

Ans:D

**18.The component of air brake system which protect reservoir from overloading is:**

A.Brake valve

**B.Unloader valve**

C.Levelling valve

D.Brake chamber

Ans:B

**19.The larger gear wheel used in the final drive is called:**

**A.Crown wheel**

B.Sun gear

C.Pinion wheel

D.Planet gear

Ans:A

**20.The formation of air pockets inside the torque converter due to low pressure is known as”**

A.Air bleeding

**B.Cavitation**

C.Free wheeling

D.None of the above

Ans:B

**21.Which among the following factor which does not effect engine compression ratio?**

A. Thickness of cylinder head gasket

**B .Carburettor flooding**

C.Baffles on piston

D.Particulate deposits inside cylinder

Ans:B

**22.The process commonly used for the manufacturing of cylinder liners is:**

A.Forging

**B.Centrifugal casting**

C.Plaster mould casting

D.Moulding

Ans:B

**23.The material used for piston ring is:**

**A.Cast Iron with Silicon**

B.Forged steel

C.Stainless steel

D.Alluminium alloy

Ans:A

**24.The component which transmit reciprocating motion of valve lifter to rocker arm:**

A.Valve guide

B.Tappet

**C.Push rod**

D.Rocket shaft

Ans:C

**25.Valve lapping is the process of grinding:**

A.Valve seat and margin

B.Valve seat and stem

C.Valve seat and guide

**D.Valve seat and face**

Ans:D

**26.The warpage of machined faces of cylinder block and cylinder head can be checked with:**

A.Dial guage

B.Telescopic guage

**C.Straight edge**

D.Trammel

Ans:C

**27.The test for finding the chemical conditions of the positive and negative battery plates is:**

A.Open volt test

B.High discharge test

C.Specific gravity test

**D.Cadmium test**

Ans:D

**28.The leaf springs are connected to axle beam by means of:**

**A.U-bolt**

B.Shackle

C.Centre bolt

D.Shackle pin

Ans:A

**29.The angle between king pin centre line and vertical in the plane of wheel is called:**

A.Steering axis inclination

B.King pin inclination

**C.Castor**

D.Camber

Ans:C

**30.Wear on tyre is more on one side is due to:**

**A.Incorrect camber angle**

B.Low tyre pressure

C.High tyre pressure

D.Sudden acceleration

Ans:A

**31.Useful powe obtained at the engine fly wheel is called:**

A.Indicated power

B.Frictional power

C.Mechanical advantage

**D.Brake power**

Ans:D

**32.The nozzle valve in the injector unit is lifted off from it’s seat by:**

A.Spring pressure

**B.High pressure diesel**

C.Spindle pressure

D.Compression pressure

Ans:B

**33.FIP is driven by:**

A.Crank shaft gear

B.Distributor shaft

C.Cam shaft screw gear

**D.Cam shaft gear**

Ans:D

**34.Which among the following tool is suitable for inserting piston with rings into the engine cylinder?**

A.Screw driver

B.Piston ring expander

**C.Piston ring compressor**

D.All of the above

Ans:C

**35.The boiling point of the coolent in cooling system is raised by:**

**A.Pressure cap**

B.Pump casing

C.Thermostat valve

D.Radiator

Ans:A

**36.The location of Thermostat valve in cooling system is:**

A.At engine inlet from radiator

**B.At engine outlet to radiator**

C.Between radiator and water pump

D.Between water pump and engine

Ans:B

**37.The viscosity of multigrade oil is determined at:
A.00F**

B.1000

C.00C

D.1000C

Ans:A

**38.The rotor type oil pump has:**

**A.An inner rotor with a lobe less than the outer rotor**

B.An outer rotor with a lobe less than the inner rotor

C.An inner rotor with a lobe more than the outer rotor

D.Two rotor with same number of lobes

Ans:A

**39.Theoretically the inlet valve closes at BDC during suction stroke.Practically the inlet valve remains open a few more degrees of crank shaft rotation after BDC.The purpose of this is to:**

A.Reducing frictional power

B.Increase valve overlapping period

C.Reduce compression pressure

**D.Increase volumetric efficiency**

Ans:D

**40.Catalytic converter is associated with:**

A.Automatic transmission system

B.Engine intake system

**C.Emission control system**

D.Vehicle breaking system

Ans:C

**41.When power factor is unity,the phase angle between voltage and current?**

A.450

B.900

C.600

**D.00**

Ans:D

**42.In a water turbine alternator the speed will be:**

**A.Low**

B.Medium

C.High

D.Very high

Ans:A

**43.The speed of a DC series motor is dangerously high at no load because:**

A.Back emf is high

B.Armature voltage is low

**C.Flux is very low**

D.Armature current is high

Ans:C

**44.Which caliper is used for scribing line along curved edges?**

A.Inside caliper

B.Outside caliper
C.Spring joint caliper

**D.Jenny caliper**

Ans:D

**45.This is not the reason for no light from the bulb in an automobile lighting system:**

**A.Overcharged battery**

B.Defective light switch

C.Fused bulb

D.Blown fuse

Ans:A

**46.If a contractor is in the open position.the armature is at its greatest distance from the core and the impedance of the coil is:**

A.Zero

**B.Low**

C.High

D.Half the normal value

Ans:B

**47.For a given VA rating cross section area of core will be less if the following metal is used:**

A.Dynamo sheet

**B.High alloy sheet**

C.Normal iron sheet

D.Stalloy sheet

Ans:B

**48.Which of the following is not used for etching?**

A.Ferric Chloride

B.Cupric Chloride

C.Alkaline Ammonia

**D.Carbon Tetra Chloride**

Ans:D

**49.An Ac or DC electric motor can be used to automatically:**

A.Charge the spring

B.To release the spring

C.To discharge the spring

**D.To load the circuit breaker**

Ans:D

**50.Air pollution is the least in this type of energy converter:**

A.Bio gas energy converters

B.Diesel generating sets

**C.Solar cell energy converter**

D.Thermal electric generating stations

Ans:C

**51.If a new vehicle is found that the negative terminal of the battery is earthed.This indicates the used of the following:**

**A.DC Generator**

B.AC Generator

C.Ignition coil

D.Inverter

Ans:A

**52.Sweep of ceiling fan refers to:**

A.Radius of circle formed by its rotation

**B.Double the length of the blade**

C.The distance from the centre of motor to tip of blade

D.Double the distance from the centre of motor to tip of blade

Ans:B

**53.In electrical accessories the use of silver is at:**

A.Contact points

**B.Switch terminal**

C.Lamp terminal

D.Wire

Ans:B

**54.The instrument which can be classified as an absolute instrument is:**

A.Milli ammeter

B.Micro ammeter

C.Galvanometer

**D.Tangent galavanometer**

Ans:D

**55.The rating of power factor improvement capacitor is in:**

A.Micro farads

B.Farads

**C.KVAR**

D.KVA
Ans:C

**56.A transistor is a -------------operated device**

**A.Current**

B.Voltage

C.Both voltage and current

D.None of the above

Ans:A

**57.DC Supply is essential for the operation of:**

A.Mercury vapour lamp

**B.Arc lamp**

C.Sodium vapour lamp

D.Fluorescent lamp

Ans:B

**58.Chatter in an AC relay magnet can be eliminated by using:**

A.Laminator

**B.Shading coil**

C.’U’shaped magnetic core

D.matching fixed and movable magnetic limbs

Ans:B

**59.In this wiring,two lamps should be switched ‘ON’ at a time:**

**A.Tunnel wiring**

B.Hostel wiring

C.Godown wiring

D.Corridor wiring

Ans:A

**60.For alignment of the job in a lathe machine,we may require small movements(small angular movements)of the chuck.This could be achieved by using a controller with:**

A.Dynamic brake push-button

B.Regenerative brake push button

C.Delay push-button

**D.Jogging push-button**

Ans:D

**61.Degaussing is the process of:**

A.Removing gases from a material

B.Removing impurities from a magnetic material

C.Demagnetizing a metallic part

**D.Demagnetizing a magnet**

Ans:D

**62.HRC fuse is superior protective device as compared to circuit breaker and relay as far as:**

A.Electomagnetic stresses are concerned

B.Thermal stresses are concerned

**C.Both electromagnetic and thermal stresses are concerned**

D.None of the above

Ans:C

**63.Which of the following material has a negative temperature coefficient of resistance?**

**A.Carbon**

B.Brass

C.Copper(Aluminium)

Ans:A

**64.By inserting reactance in the rotor circuit:**

A.Reduces starting torque as well as maximum torque

B.Increases starting torque but maximum torque remains unchanged

**C.Increases starting torque as well as maximum torque**

D.Increases starting torque but maximum torque reduces

Ans:C

**65.In three phase power measurement by two wattmeter method,reading of one wattmeter found negative.Then the P.F of the load is:**

A.0.4 lagging

**B.0.5 lagging**

C.0.8 lagging

D.Unit

Ans:B

**66.Epoxy cable joint is used where**

A.H.T.Cable joints

**B.Heating of the cable is not permitted**

C.Temporary joint

D.’T’joints only

Ans:B

**67.At the suction stroke in a reciprocating pump,the -----------valve closes and ---------valve opens**

A.Foot,Non return

B.Non return,foot

**C.Delivery, suction**

D.Suction,Delivery

Ans:C

**68.Voltage stabilizers having auto transformer in servo stabilizer is of**

A.Core type

B.Shell type

C.Distributed core type

**D.Torodial type**

Ans:D

**69.The ripple factor of a capacitor filter may be decreased by:**

A.Decreasing RL

B.Increasing RL

**C.Increasing C**
D.Increasing Both RL and C

Ans:C

**70.On doubling the supply frequency,the eddy current will**

A.Become half of their former value

**B.Become four times of their former value**

C.Remains unaffected

D.Become eight times of their former value

Ans:B

**71.If three persons take reading in horizontally placed meter at the same instant,whose reading is correct?**

A.The reading taken by the left hand side person

**B.The reading taken by the middle person**

C.The reading taken by the right hand side person

D.The reading taken by three persons simultaneously

Ans:B

**72.If the end of the shaft of a grinder motor turn blue it is an indication of:**

**A.Over heating**

B.Scoring

C.Freezing

D.Burring

Ans:A

**73.In black cotton soil,where water level is encountered within the pole pit,it is better to use:**

A.Concrete foundation

B.Earthen foundation

C.Embankment only

**D.Mass concrete and embankment**

Ans:D

**74.For testing insulation resistance the most suited electrical supply is:**

A.Alternating current

**B.Direct current**

C.Pulsating current

D.Oscillating current

Ans:B

**75.When an electric train moves down a hill,the DC series motor then act as:**

A.DC shunt motor

B.DC shunt generator

C.DC Series motor

**D.DC series generator**

Ans:D

**76.Wheat stone bridge works on the principle of:**

A.Ohms Law

**B.Kirchoff’s Laws**

C.Joules Law

D.Faraday’s Law

Ans:B

**77.In DC machines for more voltage usually windin is done in:**
A.Lap winding

B.Double winding

**C.Wave winding**

D.Cencentric winding

Ans:C

**78.The curve representing ohm’s law is:**

A.A parabola

B.Line functions

**C.Linear**

D.A hyper bola

Ans:C

**79.The capacity of a Lead acid cell is usually expressed in:**

**A.Ampere hour**

B.Voltage

C.Watts

D.Ampere

Ans:A

**80.The output voltage of ignition coil in an automobile is given to:**

A.Battery

**B.Distributor**

C.Headlight

D.Spark plug

Ans:B

**81.The type of soil which is known locally as “Regur”soil and suitable for cotton cultivation:**

A.Alluvial soil

**B.Black soil**

C.Mumbai

D.Delhi

Ans:B

**82.Where was the first session of Indian National Congress held at:**

A.Kolkatta

B.Lahore

**C.Mumbai**

D.Delhi

Ans:C

**83.Where is the lotus temple located?**

A.Punjab

B.Mumbai

C.Lucknow

**D.Delhi**

Ans:D

**84.The climate of India is:**

A.Monsoonal

B.Equitorial

**C.Continental**

D.Mediterranean

Ans:C

**85.Which is the largest state in India?**

A.Uttar Pradesh

**B.Rajasthan**

C.Madhya Pradesh

D.Bihar

Ans:B

**86.Who is known as”Kerala Valmiki”?**

**A.Vallathol Narayana Menon**

B.M.T.Vasudevan Nair

C.Thunjath Ezhuthachan

D.Kumaran Aashan

Ans:A

**87.Where is Edakkal caves located?**

A.Palakkad

**B.Wayanad**

C.Kazargode

D.Kozhikode

Ans:B

**88.Who is the founder of Sadhujana Paripalana Yogam?**

A.Sree Narayana Guru

B.EMS Namboothiripadu

**C.Ayyankali**

D.Chattampi Swami
Ans:C

**89.The number of west flowing rivers in Kerala:**

A.33

B.29

C.14

**D.41**

Ans:D

**90.Smallest Taluk in Kerala:**

**A.Kochi**

B.Eranad

C.Ottapalam

D.Varkala

Ans:A

**91.Which is the largest fresh water lake in Kerala?**

A.Ashtamudi

B.Vembanad

C.Wular

D.Kolleru

Ans:------

**92.What is the total cost length of Kerala?**

A.290

B.490

**C.590**

D.440

Ans:C

**93.Which among the following districts of Kerala receives highest rainfall?**

A.Kozhikode

B.Ernalulam

C.Palakkad

**D.Idukki**

Ans:D

**94.Which type of forest has maximum area coverage in Kerala?**

**A.Tropical moist deciduous**

B.Tropical wet evergreen

C.Tropical dry deciduous

D.Mountains sub tropical

Ans:A

**95.How many legislative assemblies are there in Kerala?**

A.120

**B.141**

C.114

D.135

Ans:B

**96.On which river bank is Goa located?**

A.Ganga

**B.Mandovi**

C.Gomati

D.Sabarmati

Ans:B

**97.In which state is”Hawa Mahal(Palace of breeze)”located?**

**A.Rajasthan**

B.Karnataka

C.Andra Pradesh

D.Uttar Pradesh

Ans:A

**98.The inception of the rebellion of 1857 was in:**

**A.Meerut**

B.Ambala

C.Barrackpore

D.Delhi

Ans:A

**99.Gandhiji started Satyagraha in 1919 to protest against the:**

A.Salt Law

B.Act of 1909

C.Jalianwala Bagh Massacre

**D.Rowlatt Act**

Ans:D

**100.The concept of five years plan in India was introduced by:**

**A.Jawaharlal Nehru**

B.Indira Gandhi

C.Lord Mountbatten

D.Lal Bahadur Shastri

Ans:A