

# FINAL ANSWER KEY

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| Question Paper Code: | 15/2019/OL                              |
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| Alphacode            | A                                       |

Question1:-The Indian Constitution adopted the idea of amending the constitution from which country

- A:-France
- B:-Australia
- C:-South Africa
- D:-Britain

Correct Answer:- Option-C

Question2:-When is the National Law Day?

- A:-January 26
- B:-November 26
- C:-July 22
- D:-January 24

Correct Answer:- Option-B

Question3:-The Right to Information Act was passed by the Indian Parliament in

- A:-12th October 2005
- B:-26th November 2005
- C:-22nd June 2005
- D:-15th June 2005

Correct Answer:- Option-D

Question4:-The 'Villuvandi Samaram' of 1893 was led by

- A:-Sahodaran Ayyappan
- B:-K.P. Karuppan
- C:-Dr Palpu
- D:-Ayyankali

Correct Answer:- Option-D

Question5:-The first book published entirely in Malayalam in Kerala is

- A:-Samkshepa Vedartham
- B:-Malabar Manual
- C:-Kundalatha
- D:-Indulekha

Correct Answer:- Option-A

Question6:-The Nadar women of Kerala got right to cover their breasts through which of the following agitation?

- A:-Villuvandi agitation
- B:-Kallumala agitation
- C:-Channar agitation
- D:-Abstention movement

Correct Answer:- Option-C

Question7:-The first newspaper in Malayalam 'Rajya Samacharam' was published from

- A:-Thalassery
- B:-Kottayam
- C:-Kozhikode
- D:-Thiruvananthapuram

Correct Answer:- Option-A

Question8:-Kerala Sangeetha Nataka Academy is located in

- A:-Ernakulam
- B:-Thrissur
- C:-Kannur
- D:-Tirur

Correct Answer:- Option-B

Question9:-The 'Antharjana Samajam' was founded by

A:-Parvathi Nenmenimangalam

B:-Arya Pallam

C:-Lalitha Prabhu

D:-Lalithambika Antharjanam

Correct Answer:-**Question Cancelled**

Question10:-"I installed my Shiva; not a Brahmin Shiva" whose revolutionary words are these?

A:-Ayyankali

B:-Thycaud Ayya Vaikundar

C:-Vagbhatananda Gurukkal

D:-Sree Narayana Guru

Correct Answer:- Option-D

Question11:-Who led the first organised strike of agricultural labourers in Travancore?

A:-C. Kesavan

B:-Pandit K.P. Karuppan

C:-Ayyankali

D:-C.V. Kunjuraman

Correct Answer:- Option-C

Question12:-Among the following literary works, which one is written by Sri Vagbhatananda Gurukkal?

A:-Atmopadesasatakam

B:-Atmavidya

C:-Darsanamala

D:-Vedadhikara Niroopanam

Correct Answer:- Option-B

Question13:-Who among the following renaissance leaders exhorted 'Mattuvinn Chattangale' (Change the rules)

A:-Brahmananda Sivayogi

B:-Chattampi Swamikal

C:-Kumaranasan

D:-Vaikunda Swamikal

Correct Answer:- Option-C

Question14:-Vakkom Abdul Khadir Moulavi started the newspaper 'Swadeshabhimani' at

A:-Anjuthengu

B:-Thalassery

C:-Chirayinkeezhu

D:-Thiruvananthapuram

Correct Answer:- Option-A

Question15:-Who is known as 'Kerala Maupassant'?

A:-M.T. Vasudevan Nair

B:-Thakazhi Sivasankara Pillai

C:-Ulloor S. Parameswara Iyer

D:-Changampuzha Krishan Pillai

Correct Answer:- Option-B

Question16:-Which district of Kerala is known as 'Land of Looms and Lores'?

A:-Kasaragod

B:-Ernakulam

C:-Kollam

D:-Kannur

Correct Answer:- Option-D

Question17:-What is the capital of Uttarakhand?

A:-Dehradun

B:-Ranchi

C:-Raipur

D:-Jaipur

Correct Answer:- Option-A

Question18:-'The Storting' is the Parliament of

A:-Sweden

B:-Norway

C:-Denmark

D:-Japan

Correct Answer:- Option-B

Question19:-Which of the following country introduced the Environment tax from January 2018, to prevent pollution?

- A:-Japan
- B:-America
- C:-China
- D:-Australia

Correct Answer:- Option-C

Question20:-The 'Statue of Unity' world's tallest statue is located in which district of Gujrat

- A:-Ahmedabad
- B:-Rajkot
- C:-Gandhinagar
- D:-Narmada

Correct Answer:- Option-D

Question21:-Name the engine component that 'carries' the engine over its non-working strokes

- A:-Piston
- B:-Crank shaft
- C:-Flywheel
- D:-Connecting rod

Correct Answer:- Option-C

Question22:-The purpose of piston ring is to control

- A:-combustion pressure
- B:-oil consumption
- C:-cylinder wall lubrication
- D:-all of the above

Correct Answer:- Option-D

Question23:-On the rear end of the crank shaft we mount

- A:-timing gear
- B:-flywheel
- C:-counter weight
- D:-fan pulley

Correct Answer:- Option-B

Question24:-The engine valves are closed by

- A:-cam shaft
- B:-crank shaft
- C:-timing gear
- D:-valve spring

Correct Answer:- Option-D

Question25:-Cam shaft of an engine is always mounted

- A:-perpendicular to the crank shaft
- B:-parallel to the crank shaft
- C:-inclined to the crank shaft
- D:-any one of the above

Correct Answer:- Option-B

Question26:-Air-fuel ratio changes according to the operating conditions like

- A:-speed
- B:-load
- C:-speed and load
- D:-speed, load and temperature

Correct Answer:- Option-D

Question27:-Lean air-fuel mixture is required for

- A:-starting
- B:-idling
- C:-acceleration
- D:-cruising

Correct Answer:- Option-D

Question28:-The centrifugal advance mechanism provide ignition advance proportional to

- A:-engine load
- B:-engine speed
- C:-both 1 and 2
- D:-none of the above

Correct Answer:- Option-B

Question29:-Contact breaker points are generally made of

A:-steel

B:-copper

C:-tungsten

D:-vanadium

Correct Answer:- Option-C

Question30:-In diesel engine combustion takes place at

A:-constant pressure

B:-constant volume

C:-constant temperature

D:-none of the above

Correct Answer:- Option-A

Question31:-Why a drain plug is provided in the fuel tank

A:-remove sediments

B:-drain fuel

C:-both 1 and 2

D:-none of the above

Correct Answer:- Option-C

Question32:-The pressure plate of a clutch is mounted on the

A:-fly wheel

B:-friction plate

C:-crank shaft

D:-clutch cover

Correct Answer:- Option-D

Question33:-When clutch is engaged the spring pressure clamps the friction plate between pressure plate and

A:-flywheel

B:-clutch cover

C:-reaction plate

D:-none of the above

Correct Answer:- Option-A

Question34:-The purpose of 'double declutching' when changing down is to

A:-slow down the lay shaft

B:-speed up the lay shaft

C:-slow down main shaft

D:-speed up the main shaft

Correct Answer:- Option-B

Question35:-Speedometer is driven by the gearbox shaft called

A:-primary shaft

B:-lay shaft

C:-counter shaft

D:-main shaft

Correct Answer:- Option-D

Question36:-In the differential, the crown wheel is attached to the

A:-propeller shaft

B:-bevel gear

C:-bevel pinion

D:-differential cage

Correct Answer:- Option-D

Question37:-Hypoid gear require special lubricant because

A:-tooth is made of soft material

B:-tooth is made of hard material

C:-such gear rotates faster

D:-sliding action is there between teeth

Correct Answer:- Option-D

Question38:-Which of the following would enable the calculation of final drive gear ratio?

A:-crown wheel teeth and pinion gear teeth

B:-crown wheel teeth and star gear teeth

C:-pinion wheel teeth and sun gear teeth

D:-star wheel teeth and pinion gear teeth

Correct Answer:- Option-A

Question39:-The type rear axle used on trucks

A:-semi floating

B:-fully floating

C:-three-quarter floating

D:-any one of the above

Correct Answer:- Option-B

Question40:-The vehicle ride will be comfortable if

A:-up-sprung weight is kept minimum

B:-sprung weight is kept minimum

C:-vehicle weight is kept minimum

D:-all of the above

Correct Answer:- Option-A

Question41:-Which of the following is a water tube boiler?

A:-Cochran boiler

B:-Locomotive boiler

C:-Stirling boiler

D:-None of the above

Correct Answer:- Option-C

Question42:-La-Mont boiler is a

A:-Low pressure boiler

B:-Fire tube boiler

C:-High pressure boiler

D:-None of the above

Correct Answer:- Option-C

Question43:-The rate of flow of steam in case of water tube boiler as compared to fire tube boiler is

A:-Less

B:-More

C:-Same

D:-None of the above

Correct Answer:- Option-B

Question44:-The mounting on the boiler which put off fire when the level of water in the boiler is below the limit is

A:-Safety valve

B:-Stop valve

C:-Fusible Plug

D:-Blow off cock

Correct Answer:- Option-C

Question45:-A device used for raising the pressure of feed water in a boiler is

A:-Economiser

B:-Feed pump

C:-Super heater

D:-Air preheater

Correct Answer:- Option-B

Question46:-Which of the following is a boiler accessory?

A:-Safety valve

B:-Stop valve

C:-Fusible plug

D:-Super heater

Correct Answer:- Option-D

Question47:-Maximum heat loss in boiler occurs by

A:-Flue gas

B:-Moisture in fuel

C:-Incomplete combustion

D:-None of the above

Correct Answer:- Option-A

Question48:-Pumping loss in an IC engine is

A:-Power spent in complete cycle

B:-Frictional power

C:-Power used in suction and exhaust stroke

D:-None of the above

Correct Answer:- Option-C

Question49:-Thermal efficiency of 2-stroke engine compared to a 4-stroke engine is

A:-More

B:-Less

C:-Equal

D:-None of the above

Correct Answer:- Option-B

Question50:-The compression ratio of a diesel engine compared to petrol engine is

A:-More

B:-Less

C:-Equal

D:-None of the above

Correct Answer:- Option-A

Question51:-For the same compression ratio which is efficient

A:-Petrol engine is efficient

B:-Diesel engine is efficient

C:-Both are equally efficient

D:-Cannot compare

Correct Answer:- Option-A

Question52:-Ignition Quality of petrol is measured by

A:-Calorific value

B:-Cetane number

C:-Octane number

D:-None of the above

Correct Answer:- Option-C

Question53:-Sedan and wagons are the classifications of vehicles based on

A:-body shape

B:-seating capacity

C:-purpose

D:-none of the above

Correct Answer:- Option-A

Question54:-Octane no. of iso-octane is

A:-60

B:-70

C:-80

D:-100

Correct Answer:- Option-D

Question55:-The fuel which detonate easily is

A:-n-Heptane

B:-Iso-octane

C:-Benzene

D:-Alcohol

Correct Answer:- Option-A

Question56:-The size of a lathe is specified by

A:-Maximum distance between the centres

B:-Length of bed

C:-Height of the centre measured from lathe bed

D:-All of the above

Correct Answer:- Option-D

Question57:-Which of the following method is used for taper turning in a lathe?

A:-back gear method

B:-all gear drive

C:-form tool method

D:-none of the above

Correct Answer:- Option-C

Question58:-The cutting tool in a milling machine is held in position

A:-arbour

B:-spindle

C:-column

D:-knee

Correct Answer:- Option-A

Question59:-Which of the following metal has the least weldability

A:-carbon steel

B:-stainless steel

C:-iron

D:-cast iron

Correct Answer:- Option-D

Question60:-Which of the following is an example of plastic welding?

A:-arc welding

B:-gas welding

C:-fusion welding

D:-forge welding

Correct Answer:- Option-D

Question61:-Seam welding is

A:-An arc welding process

B:-Gas welding process

C:-Continuous spot welding process

D:-None

Correct Answer:- Option-C

Question62:-In thermit welding, the aluminium and iron oxide are mixed in the proportion of

A:-1:3

B:-1:1

C:-1:2

D:-2:1

Correct Answer:- Option-A

Question63:-The validity of registration of a private vehicle is

A:-1 year

B:-2 years

C:-life time

D:-15 years

Correct Answer:- Option-D

Question64:-Which one of the following is not a heat treatment process?

A:-Parkerising

B:-Cyaniding

C:-Mar tempering

D:-Nitriding

Correct Answer:- Option-A

Question65:-Which one of the following is a natural abrasive?

A:-Diamond

B:-Silicon carbide

C:-Boron carbide

D:-Aluminium oxide

Correct Answer:- Option-A

Question66:-Automotive starting motors are

A:-Series wound

B:-Shunt wound

C:-Both 1 and 2

D:-None of the above

Correct Answer:- Option-C

Question67:-Gear reduction between the starting motor and the fly wheel is about

A:-5

B:-15

C:-25

D:-50

Correct Answer:- Option-B

Question68:-Spark plug with white insulator tip indicates

A:-Advanced ignition

B:-Retarded ignition

C:-Leaded fuel

D:-Gas leak

Correct Answer:- Option-A

Question69:-Ignition timing can be adjusted by an

A:-Accurate clock

B:-Stop watch

C:-Stroboscopic light

D:-Vacuum gauge

Correct Answer:- Option-C

Question70:-The ratio of the distributor shaft and the crank shaft speed

A:-1

B:- $\frac{1}{4}$

C:- $\frac{1}{2}$

D:-2

Correct Answer:- Option-C

Question71:-The contact breaker gap is not accurately set by a

A:-Feeler gauge

B:-Dial gauge

C:-Dwell meter

D:-None

Correct Answer:- Option-C

Question72:-A discharged lead acid battery has on its plate

A:-Pb

B:-PbO

C:- $\text{PbSO}_4$

D:- $\text{PbSO}_2$

Correct Answer:- Option-C

Question73:-A maintenance-free battery

A:-Has lead-antimony plate

B:-Lead-calcium plate

C:-No acid

D:-No water

Correct Answer:- Option-B

Question74:-In a DC generator the magnetic field is produced in the

A:-Armature

B:-Commutator

C:-Starter

D:-None of the above

Correct Answer:- Option-D

Question75:-What is VIN number stands for

A:-Vehicle Index Number

B:-Vehicle Identification Number

C:-Vehicle Information Number

D:-None

Correct Answer:- Option-B

Question76:-Photo chemical smog is caused by the emission

A:- $\text{NO}_x$

B:- $\text{CO}_2$

C:- $\text{CO}_3$

D:- $\text{SO}_2$

Correct Answer:- Option-A

Question77:-Blow-by gases are emitted from

A:-Tail pipe

B:-Crank case

C:-Carburetor

D:-Fuel tank

Correct Answer:- Option-B



Question78:-The distance between the centres of the front wheel is called

- A:-Track
- B:-Wheel base
- C:-Axle width
- D:-None of the above

Correct Answer:- Option-A

Question79:-The minimum number of rings in a piston is

- A:-1
- B:-2
- C:-3
- D:-4

Correct Answer:- Option-C

Question80:-Which of the following is the first motor vehicle act in India?

- A:-Burma Act
- B:-Madras Act
- C:-Bombay Act
- D:-Bengal Act

Correct Answer:- Option-D

Question81:-Centre of gravity of a triangle lies at the point of inter section of

- A:-Medians
- B:-Diagonals
- C:-Bisector of angles
- D:-None of the above

Correct Answer:- Option-A

Question82:-The vehicle specially designed for persons with disability

- A:-Articulated vehicle
- B:-Omni vehicle
- C:-Motor cab
- D:-Invalid carriage

Correct Answer:- Option-D

Question83:-Moment of inertia is also called

- A:-First moment of area
- B:-Second moment of area
- C:-Third moment of area
- D:-None

Correct Answer:- Option-B

Question84:-A system of forces consists of a number of forces acting on a body

- A:-At the same time
- B:-In the same direction
- C:-One after the other in a given order
- D:-None of the above

Correct Answer:- Option-A

Question85:-Two forces each of 100 N act at a point at an angle  $60^\circ$  with each other. The resultant is

- A:-100 N
- B:-0 N
- C:-200
- D:-173 N

Correct Answer:- Option-D

Question86:-The effect of a couple acting on a body is to

- A:-Keep the body in equilibrium
- B:-Rotate the body
- C:-Impart translator motion
- D:-None of the above

Correct Answer:- Option-B

Question87:-In which of the following the centroid lies out of the section

- A:-T section
- B:-Symmetrical I section
- C:-Unsymmetrical I section
- D:-Angle section

Correct Answer:- Option-D

Question88:-Polar moment of inertia of a circular shaft of radius r is given by

A:- $\frac{\pi r^4}{32}$

B:- $\frac{\pi r^4}{64}$

C:- $\frac{\pi r^4}{2}$

D:- $\frac{\pi r^4}{16}$

Correct Answer:- Option-C

Question89:-The purpose drawing the funicular polygon is to find

A:-The magnitude of the resultant

B:-Direction of the resultant

C:-The point at which resultant Acts

D:-All of the above

Correct Answer:- Option-D

Question90:-The phenomenon by which a material under tensile load continues to elongate slowly at a high temperature is known as

A:-Fatigue

B:-Resilience

C:-Creep

D:-Plasticity

Correct Answer:- Option-C

Question91:-Internal resistance set up per unit area to resist deformation is known as

A:-Creep

B:-Resilience

C:-Strain

D:-Unit stress

Correct Answer:- Option-D

Question92:-Poisson's ratio is defined as The ratio of

A:-Shear stress to shear strain

B:-Lateral stress to lateral strain

C:-Lateral strain to longitudinal strain

D:-Lateral strain to longitudinal stress

Correct Answer:- Option-C

Question93:-Which of the following should be followed for fuel efficient driving habit?

A:-steady driving

B:-avoid frequent braking

C:-speed range between 35-50 kmph

D:-all of the above

Correct Answer:- Option-D

Question94:-A fluid flow is said to be laminar if the Reynolds number is less than

A:-2000

B:-1500

C:-2500

D:-4000

Correct Answer:- Option-A

Question95:-Hydraulic mean depth (m) is given by

A:-A/P

B:-P/A

C:-A × P

D:-1/AP

Correct Answer:-**Question Cancelled**

Question96:-Surge tank in a pipe line is used to

A:-reduce loss of head

B:-make flow uniform

C:-relieve the pressure due to water hammer

D:-none of the above

Correct Answer:- Option-C

Question97:-If the head of a turbine is more than 300 m then the turbine used should be

A:-Francis

B:-Kaplan

C:-Pelton

D:-Propeller

Correct Answer:- Option-C

Question98:-Mach number is defined as the ratio of

A:-Inertia force to viscous force

B:-Inertia force to gravity force

C:-Elastic force to viscous force

D:-Inertia force to surface tension force

Correct Answer:-**Question Cancelled**

Question99:-Poise is the unit of

A:-mass density

B:-viscosity

C:-kinematic viscosity

D:-velocity gradient

Correct Answer:- Option-B

Question100:-Bernoulli's theorem deals with the law of conservation of

A:-momentum

B:-energy

C:-mass

D:-none of the above

Correct Answer:- Option-B