081/2017

Question Booklet Alpha Code	A	Question Booklet Serial Number	106665

Total No. of Questions: 100 | Time : 75 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

081/2017

Maximum : 100 Marks

Time : 1 hour and 15 minutes

1. Which among the following agency, the government of India gave permission to safeguard the 'Red Fort' ?
   (A) SIT (B) UTI
   (C) ASI (D) PTI

2. Who was the Governor-General of India between 1848 and 1856 ?
   (A) Lord Rippon (B) Lord Dalhousie
   (C) Lord Mountbatten (D) Lord Hardinge

3. Which of the following term refers 'know your customer' ?
   (A) CKY (B) YKC
   (C) KCY (D) KYC

4. WTO 11th Ministerial Conference to be held in
   (A) Buenos Aires (B) Tokyo
   (C) Singapore (D) Beijing

5. Who is the '21st' Chief Minister of Uttar Pradesh ?
   (A) Capt. Amarinder Singh (B) Akhilesh Yadhav
   (C) Prakash Javadekar (D) Yogi Adityanath

6. Which among the following is an important lake in South Kerala ?
   (A) Kumbla (B) Bekal
   (C) Kayamkulam (D) Kalnad

7. The capital of Marthanda Varma was at
   (A) Colachel (B) Kalkulam
   (C) Vizhinjam (D) Padmanabhapuram

8. Economic activities included in the primary, secondary and tertiary sectors are classified by
   (A) CSO (B) NSDC
   (C) GST (D) MOSPI

9. What is common about the highest peak Mt. Everest and the deepest trench, the Challenger Deep of Pacific Ocean ?
   (A) Parts of Crust (B) Parts of Mantle
   (C) Parts of Core (D) Parts of Lithosphere

10. What is the chronological order of the events of the following ?
    A. Vaikam Satyagraha B. Quit India Movement
    C. Chauri Chaura Incident D. Malabar Rebellion
    (A) ACDB (B) BACD
    (C) DCAB (D) CDBA

11. Which of the following river is not originated from the peninsular plateau ?
(A) Godavari
(B) Indus
(C) Kaveri
(D) Tapti

12. Find the odd man out :
(A) Shimla
(B) Sojila
(C) Nathula
(D) Banihal

13. Which among the following is a beverage crop ?
(A) Jute
(B) Pepper
(C) Cotton
(D) Tea

14. Who did bring the proclamation of Free Primary Education in 1817, Travencore ?
(A) Lakshmi Bai
(B) Gauri Parvati Bai
(C) Utram Tirunal Marthanda Varma
(D) Swati Tirunal

15. Who among the following Women's leaders of the national movement was not a member of the First Women Conference held at Vatakara in 1931 ?
(A) A.Y. Kuttimalu Amma
(B) Akkamma Cherian
(C) Annie Mascarene
(D) None of these

16. Who was appointed as the Governor of Orissa in 1952 ?
(A) Fazl Ali
(B) K.M. Panikker
(C) V.P. Menon
(D) N. Kunzru

17. 'Yoga System of Philosophy' was advocated by
(A) Brahmananda Sivayogi
(B) Chattampi Swamikal
(C) Swami Vagbhatananda
(D) Vaikunta Swami

18. Who among the following has an honoured place in the history of journalism in Kerala ?
(A) Ayyankali
(B) Vakkam Abdul Khadi Maulavi
(C) Sri Narayana Guru
(D) K. Kelappan

19. The First Circus Training Institute at Tellicherry was founded by
(A) Pandit Karuppan
(B) Thycaud Ayya
(C) Unni Krishnan
(D) Keeleri Kunhikannan

20. Which of the following strike was not led by Gandhiji ?
(A) Champaran Satyagraha
(B) Cotton Mill workers in Ahmedabad
(C) Home Rule Movement
(D) Strike for Non payment of Tax, Kheda in Gujarat

21. In a metric micrometer, a complete revolution of thimble advances
(A) 1 mm (B) 0.25 mm
(C) 0.50 mm (D) 0.01 mm

22. An engine running in closed garage is dangerous because the exhaust gas contains
(A) Carbon dioxide (B) Carbon monoxide
(C) Water vapour (D) All of the above

23. The least count of Vernier Calliper is
(A) 0.02 mm (B) 0.01 mm
(C) 1 mm (D) 0.05 mm

24. For tightening cylinder head nuts we should prefer to use
(A) Pipe wrench (B) Torque wrench
(C) Ring spanner (D) Adjustable spanner

25. Before you work under a car, make sure that
(A) the tyres are inflated
(B) use a creeper
(C) the car is supported on screw jack
(D) the car is supported on safety stands

26. The minimum number of compression rings in an automobile engine is
(A) two (B) one
(C) three (D) six

27. The device for smoothing out the power impulses from the engine is called
(A) Governor (B) Crankshaft
(C) Flywheel (D) Clutch spring

28. As the piston moves up in the cylinder during compression, the air fuel mixture
(A) pressure goes up (B) temperature goes up
(C) pressure goes down (D) both (A) and (B)

29. The valve train of a push rod engine include a cam and
(A) Tappet, push rod (B) Tappet, push rod, rocker arm
(C) Push rod, rocker arm (D) None of the above

30. The type of gear box used in motor cycle is

(A) Automatic (B) Synchromesh

(C) Selective (D) Progressive

31. The air fuel mixture required at the time of engine start is

(A) Optimum mixture (B) Lean mixture

(C) Rich mixture (D) None of the above

32. In CI engine, the fuel is ignited by

(A) the heat of compressed hot air

(B) the heat of intake gas

(C) the heat of exhaust gas

(D) an electric spark

33. The distributor shaft turns at

(A) half the speed of crankshaft

(B) half the speed of camshaft

(C) same speed of crankshaft

(D) twice the speed of camshaft

34. Valve overlap means

(A) early opening of inlet valves

(B) early opening of exhaust valves

(C) both inlet and exhaust valves are closed

(D) both inlet and exhaust valves are opened

35. The discharged lead acid battery has its plates

(A) Lead sulphate (B) Spongy lead

(C) Lead peroxide (D) H_2SO_4

36. A compensation system is incorporated in a constant choke carburettor is to prevent

(A) flooding at high speed (B) richness at high speed

(C) weakness at high speed (D) richness at low speed

37. In four stroke engines, power produced at

(A) each revolution of crankshaft (B) two revolution of crankshaft

(C) four revolution of crankshaft (D) none of the above

38. A three cylinder engine has a capacity of 1.2 litres. The swept volume of one cylinder is

(A) 400 cm^3 (B) 400 mm^3

(C) 1200 cm^3 (D) 1200 mm^3

39. The purpose of valve clearance is to

(A) ensure that valve opens fully

(B) allow the valve to expand during hot

(C) allow the valve to slide up and down freely

(D) all of the above

40. For the smooth engagement of clutch, the clutch disc provided with

(A) Cushion springs (B) Thrust springs

(C) Torsion springs (D) All of the above

41. Diaphragm spring type clutch is widely used in

(A) Cars (B) Motorcycles

(C) Scooters (D) Trucks

42. An engine has a clearance volume of 100 cm^3 and swept volume of 900 cm^3. The compression ratio is

(A) 9 : 1 (B) 10 : 1

(C) 8 : 1 (D) 1 : 9

43. Tachometer measures

(A) Engine power (B) Engine torque

(C) Speed of vehicle (D) Speed of engine

44. The rotary switch in the distributor is formed by the

(A) Distributor cap and rotor (B) Breaker cam and rotor

(C) C.B. points and rotor (D) C.B. points and ignition coil

45. In the electronic ignition system, the primary circuit is opened and closed by
(A) C.B. Points
(B) Timer
(C) Electronic Control Unit
(D) Breaker cam

46. Hydraulic braking system works on the principle of
(A) Faraday's Law
(B) Pascal's Law
(C) Newton's Law
(D) Boyle's Law

47. Which one of the following item is made of aluminium alloy ?
(A) Piston rings
(B) Piston
(C) Connecting rod
(D) Crankshaft

48. Two methods of resizing cylinder bore are
(A) Boring and Honing
(B) Grinding and Honing
(C) Reaming and Honing
(D) Honing and Lapping

49. The part of an ignition system which transforms the voltage from 12 V to 25000 V is
(A) Ignition coil
(B) Distributor
(C) Rotor
(D) Spark plug

50. Which one of the following is mounted between the engine and gear box ?
(A) Propeller shaft
(B) Clutch
(C) Final drive
(D) None of the above

51. The function of gear box in an automobile is to
(A) Vary torque
(B) Connect the engine power gradually
(C) Allows permanent speed reduction
(D) Allows outer wheels runs faster

52. Electrolyte used in a lead acid battery is
(A) Diluted sulphuric acid
(B) Sulphuric acid
(C) Distilled water
(D) Nitric acid

53. In motor vehicles, temperature gauge indicates

(A) Engine cylinder temperature
(B) Coolant temperature
(C) Lubricating oil temperature
(D) All of the above

54. Function of Flywheel in scooter engine

(A) store energy during power stroke
(B) act as magneto
(C) act as fan
(D) All of the above

55. Which part is not common between the petrol and diesel engines ?

(A) Silencer
(B) Air cleaner
(C) Fuel filter
(D) Injector

56. Camber is

(A) Inward tilt of king pin at the top
(B) Outward tilt of king pin at the top
(C) Backward tilt of king pin at the top
(D) Outward tilt of wheels at the top

57. A head-light bulb consists of

(A) one bright filament
(B) one dipper filament
(C) both dipper and bright filament
(D) None of the above

58. Engine overhauling indicates

(A) excessive fuel consumption
(B) excessive oil consumption
(C) rapidly overheat the engine
(D) All of the above

59. Find out the odd one.

(A) Fuel injector
(B) Spark plug
(C) Condenser
(D) Distributor

60. In motorcycles, the torque from gear box is transmitted to the road wheels through

(A) chain and sprocket
(B) pully and belt
(C) propeller shaft
(D) All of the above

61. The thermodynamic cycle used in petrol engine is

(A) Dual cycle (B) Carnot cycle

(C) Otto cycle (D) All of the above

62. The instrument used to measure ovality and taper of cylinder bore is

(A) Inside micrometer (B) Dial indicator

(C) Cylinder bore gauge (D) All of the above

63. Deposit of carbon in the exhaust system

(A) will reduce back pressure

(B) will increase back pressure

(C) will have no effect on back pressure

(D) None of the above

64. All the four wheel drive automobiles has

(A) one differential (B) four differential

(C) two differential (D) None of these

65. If the thermostat valve is stuck closed, the engine will

(A) fail to start (B) over cooled

(C) overheat rapidly (D) warm up slowly

66. The most important character of lubricating oil is its

(A) physical stability (B) chemical stability

(C) resistance against corrosion (D) viscosity

67. Grease can be used as a lubricant for the lubrication of

(A) water pump (B) wheel bearings

(C) sliding joint (D) All of the above

68. Aluminium cylinder block requires

(A) Aluminium liners (B) Cast iron liners

(C) Brass liners (D) No liners

69. Find out the odd one from the following :
(A) Wheel cylinder
(B) Bleeder valve
(C) Rubber cup
(D) Thermostat valve

70. Which of the following makes it possible to increase the boiling point of coolant ?
(A) Radiator core
(B) Coolant pump
(C) Radiator pressure cap
(D) All of the above

71. Which type of clutch is used in modern scooters ?
(A) Diaphragm
(B) Centrifugal
(C) Multiplate
(D) Automatic

72. Mechanical brake system is generally provided as service brake in _____ vehicles.
(A) Trucks
(B) Scooters
(C) Cars
(D) Auto-rickshaws

73. Which transmission units transmits power at varied angles and varied lengths ?
(A) Chain drive
(B) Belt drive
(C) Propeller shaft
(D) All of the above

74. As applied to steering, the abbreviation P.A.S. stands for
(A) Power Aided Steering
(B) Power Assisted Steering
(C) Pump Assisted Steering
(D) Power Acted Steering

75. At the ventury of carburettor, the pressure of air is
(A) Maximum
(B) Increases
(C) Decreases
(D) Same as before

76. Feed pumps in diesel engines are generally mounted in between
(A) Tank and injection pump
(B) Injection pump and injector
(C) Tank and filter
(D) Filter and injection pump

77. In the following statements, which is not suitable for diesel engines ?
(A) High initial cost
(B) High running cost
(C) High maintenance cost
(D) High compression pressure

78. During the upward stroke of a two stroke petrol engine, which of the following events take place ?

(A) Compression and Exhaust (B) Compression and Power

(C) Compression and Suction (D) Compression and Transfer

79. Which type of lubrication system is generally adopted in two stroke petrol engines ?

(A) Splash system (B) Pressure system

(C) Semi pressure system (D) Petroil system

80. Engine is a machine which convert

(A) Mechanical energy into heat energy

(B) Electrical energy into mechanical energy

(C) Heat energy into mechanical energy

(D) Mechanical energy into electrical energy

81. The distance between BDC to TDC is

(A) 90° (B) 45°

(C) 180° (D) 360°

82. The distance between the centres of the front and rear wheel is known as

(A) Chassis length (B) Axle length

(C) Wheel base (D) Wheel track

83. The type of fuel feed system is used in motorcycle is

(A) Gravity feed system (B) Pressure feed system

(C) Thermo syphon system (D) Autovac system

84. Rapid wear in the centre of tread of tyre is due to

(A) Under inflation (B) Over inflation

(C) Excessive camber (D) Excessive caster

85. Which one of the following is not a part of master cylinder ?

(A) Check valve (B) Piston

(C) Piston rings (D) Return spring

86. The state of charge of battery is checked by
(A) Cell tester
(B) Hydrometer
(C) Voltmeter
(D) All of the above

87. The tool used for refitting piston rings on piston is
(A) Piston ring expander
(B) Piston ring compressor
(C) Piston groove cleaner
(D) Circlip pliers

88. The pressure in the engine cylinder become less than the atmospheric pressure during
(A) Exhaust
(B) Power
(C) Compression
(D) Suction

89. Transfer case is used for
(A) Single wheel drive vehicles
(B) Two wheel drive vehicles
(C) Four wheel drive vehicles
(D) All of the above

90. A ring gear is provided around the engine flywheel
(A) to transmit power to the gear box
(B) to start the engine using self-starter
(C) to transmit power to the water pump
(D) to transmit power to oil pump

91. The air fuel ratio of petrol engine is controlled by
(A) Feed pump
(B) Governor
(C) Float chamber
(D) Carburettor

92. Which of the following statement is true ?
(A) Lighter flywheel is needed in two stroke engines.
(B) Lighter flywheel is needed in four stroke engines.
(C) Volumetric efficiency is high in two stroke engines
(D) Volumetric efficiency is less in four stroke engines.

93. The condition that causes vapour locking in a brake system
(A) Keeping the vehicle without use for a long period
(B) Over cooling of the brake during high speed driving
(C) Over-heating of the fluid due to frequent brake application
(D) High engine speed on a down hill road

94. The breaking up of a fuel into fine drops by spraying is called

(A) Carburation (B) Atomization

(C) Vaporization (D) All of the above

95. The function of a generator in an automobile is to

(A) convert engine power into electrical power.

(B) convert mechanical energy into electrical energy.

(C) convert electrical energy into mechanical energy.

(D) None of the above

96. The main function of the ignition condenser is

(A) reduce arcing at the C.B. points

(B) reduce secondary spark

(C) increase arcing at the contact points

(D) All of the above

97. The most effective air cleaner in case of diesel engine is

(A) Dry type (B) Wet type

(C) Water bath type (D) Oil bath type

98. The brake lining consists mainly of

(A) Cast iron (B) Copper

(C) Rubber (D) Asbestos

99. The common firing order of six cylinder engine is

(A) 1-2-3-4-5-6 (B) 1-6-5-4-3-2

(C) 1-5-2-6-3-4 (D) 1-5-3-6-2-4

100. Taper needle jet is found in

(A) S.U. carburettor (B) Solex carburettor

(C) Zenith carburettor (D) All of the above