

199/2015

1. Name of the Engine which have bore is equal to stroke length :
(A) Wankel Engine (B) Radial Engine
(C) Square Engine (D) Hybrid Engine

2. Write down correct equation :
(A) $IHP = BHP + FHP$ (B) $FHP = BHP + IHP$
(C) $BHP = IHP + FHP$ (D) $IHP = BHP - FHP$

3. Which of the following Cycle is used in petrol engine ?
(A) Diesel Cycle (B) Otto Cycle
(C) Carnot Cycle (D) Brayton Cycle

4. An engine has swept volume of 600 cc. If compression ratio is 8.5, determine clearance volume in cc :
(A) 40 cc (B) 60 cc (C) 80 cc (D) 100 cc

5. One bar is equal to (KPa - KiloPascal) :
(A) 1 KPa (B) 10 KPa (C) 1000 KPa (D) 100 KPa

6. Actual power delivered at the crank shaft :
(A) FHP (B) IHP (C) BHP (D) None of these

7. The part which connects piston and connecting rod :
(A) Crankpin (B) Pistonpin (C) Fly wheel (D) Gasket

8. The exhaust valve usually starts opening :
(A) at BDC (B) at TDC (C) before BDC (D) before TDC

9. Valve clearance is measured by the instrument :
(A) Screw gauge (B) Slip gauge (C) Vernier caliper (D) Feeler gauge

10. Which of the following is used to avoid over cooling in the cooling system of the engine ?
(A) Pressure cap (B) Thermostat
(C) Expansion reservoir (D) Radiator
11. In which of the following lubrication system lubricant oil is mixed with fuel ?
(A) Splash system (B) Pressure system (C) Dry sump (D) Petroil system
12. Which of the following number is used to indicate ignition quality of diesel fuel ?
(A) Cetane (B) Octane (C) Random (D) None of these
13. Which of the following is used in fuel tank to reduce surging of fuel on account of sudden brake or cornering ?
(A) Muffler (B) Baffle plate (C) Drain plug (D) Rocker arm
14. An electrical fuel pump operates but delivers insufficient fuel. This may be due to :
(A) Chocked pump filters (B) Worn out valves
(C) Damaged diaphragm (D) All of the above
15. The device which used to maintain speed at varying load condition :
(A) Fly wheel (B) FIP (C) Governor (D) Injector
16. The ignition advance method controls ignition timing according to engine speed :
(A) Vacuum advance (B) Centrifugal advance
(C) Electric advance (D) None of these
17. A Lead acid battery is an automobile used the acid :
(A) Sulphuric acid (B) Hydrochloric acid
(C) Nitric acid (D) Phosphoric acid
18. A four wheeler normally uses battery of :
(A) 10 volt (B) 12 volt (C) 20 volt (D) 1.5 volt

19. The test used to know the chemical condition of positive and negative plate is :
- (A) Specific gravity test (B) Open volt test
(C) High discharge test (D) Cadmium test
20. The clutch does not require clamping spring and release lever :
- (A) cone clutch (B) single plate clutch
(C) diaphragm clutch (D) multi plate clutch
21. Reason for clutch drag or spin is :
- (A) Excessive free pedal play (B) Damaged pressure plate
(C) Cracked clutch plate (D) All of the above
22. The clutch is located between the gear box and the :
- (A) Engine (B) Rear axle (C) Propeller shaft (D) differential
23. Which of the following gear box used double de clutching process ?
- (A) Synchromesh gear box (B) Sliding mesh
(C) Constant mesh (D) All of the above
24. Increase of torque in a vehicle is obtained by :
- (A) Increasing speed (B) Decreasing speed
(C) Increasing power (D) All of the above
25. Speed of the driving gear (A) 1500 rpm, speed of the driven gear (B) mesh with A is 3000 rpm. What is gear ratio ?
- (A) 2 (B) 0.5 (C) 1.5 (D) 4500
26. The type of gear box used in automatic transmission is :
- (A) Epicyclic gear box (B) Constant mesh gear box
(C) Sliding mesh (D) Synchromesh gear box
27. When the car is taking a turn the outer wheel have to travel greater distance as compared to the inner wheel in the same time, the device used to adjust this is :
- (A) Propeller shaft (B) Slip joint (C) Differential (D) Transfer case

28. The rear axle shaft supporting in which the axle shaft can be taken out or replaced without jacking up the vehicle is :
- (A) Semi floating axle (B) Full floating axle
(C) Three quarter axle (D) None of these
29. The suspension movement in which vehicle moves perpendicular the road is :
- (A) Bouncing (B) Rolling (C) Pitching (D) None of these
30. The independent suspension system which uses only lower wishbone :
- (A) Wishbone type (B) Mac pherson strut
(C) Vertical guide (D) Single strut
31. Which of the following suspension system uses compressors ?
- (A) Rigid axle (B) Independent (C) Vertical guide (D) Air suspension
32. Which of the following spring used in rigid axle suspension ?
- (A) Coil spring (B) Leaf spring (C) Air spring (D) Torsion spring
33. The tilt of the vehicle wheels from the vertical :
- (A) Camber (B) Castor
(C) Kingpin inclination (D) Combined angle
34. The ratio between side force sustained to the slip angle is :
- (A) Cornering power (B) Slip ratio
(C) Side ratio (D) Steering ratio
35. The ratio of tyre section height to the tyre section width :
- (A) Ply rate (B) Aspect ratio (C) Tyre ratio (D) None of these
36. The process of filling air in tyre is :
- (A) Inflation (B) Deflation (C) Cracking (D) None of these

37. The type of wheel which cannot be used with a tubeless tyre :
 (A) Disc wheel (B) Alloy wheel (C) Wire wheel (D) None of these
38. The heart of the hydraulic brake system is :
 (A) Wheel cylinder (B) Master cylinder (C) Adjuster (D) Brake pedal
39. The process of removing air from hydraulic system is :
 (A) Brake adjustment (B) Brake bleeding
 (C) Wheel alignment (D) Brake alignment
40. Which of the following brake cannot stop the vehicle like a service brake ?
 (A) Engine exhaust brake (B) Air brake
 (C) Bendix hydromax brake (D) Disc brake
41. Full form of ABS which is used in vehicle is :
 (A) Absolute Braking System (B) Always Better Service
 (C) Anti-lock Braking System (D) None of these
42. The instrument which shows the distance travelled by the vehicle is :
 (A) Speedometer (B) Tachometer (C) Odometer (D) Lactometer
43. Air bag used in a car is :
 (A) storage of air (B) storage of oxygen
 (C) for protection of passenger (D) for air brake
44. The tool used to finish a previously drilled hole is :
 (A) Grinder (B) Reamer (C) Tap and die (D) Tube cutter
45. Which of the following is an external combustion engine ?
 (A) Petrol engine (B) Diesel engine (C) Steam engine (D) Gas engine
46. The process of removing exhaust gas from the engine cylinder is :
 (A) Scavenging (B) Compression (C) Engine slap (D) Scuffing

47. Mechanical efficiency of an engine is :
(A) IHP/BHP (B) BHP/IHP (C) BHP/FHP (D) FHP/BHP
48. The sound produced due to the excess clearance between piston and cylinder during cold starting :
(A) Knocking (B) Piston slap (C) Humming (D) Piston scuffing
49. The distance between center line of crankpin and main journal axis is :
(A) Crank throw (B) Valve clearance
(C) Eccentricity (D) Normal clearance
50. Which of the following valve is used in automobile engine ?
(A) Poppet valve (B) Rotary valve (C) Sleeve valve (D) None of these
51. The ratio of RPM of crankshaft to the RPM of camshaft is :
(A) 1 (B) 2 (C) 0.5 (D) 3
52. Which of the following is used to measure level of lubricating oil in the oil sump :
(A) Oil pressure gauge (B) Dipstick
(C) Warning light (D) Timing light
53. The amount of heat energy produced during complete combustion of 1 kg of fuel is termed as :
(A) Knocking rate (B) Specific heat (C) Calorific value (D) Sensible heat
54. Multi Point Fuel Injection (MPFI) is used in :
(A) Diesel engine (B) Petrol engine (C) Steam engine (D) None of these
55. The amount of voltage required to produce spark in SI engine is termed as :
(A) Medium voltage (B) Brake down voltage
(C) Standard voltage (D) Threshold voltage

56. To reduce emission of unburned hydrocarbon in the automobile exhaust gas combustion chamber is designed as :
- (A) Spherical (B) Hemispherical (C) Conical (D) Cubical
57. The colour of positive plate in Lead acid battery is :
- (A) Chocolate brown (B) Grey
(C) White (D) Red
58. The device used to convert AC current in the armature coil to DC current is :
- (A) Yoke (B) Commutator (C) Contact breaker (D) Ballast resistor
59. The instrument used to test short circuit between armature winding in starting motor or dynamo is :
- (A) Growler (B) Multimeter
(C) High rate discharge tester (D) Stroboscope
60. The volume between TDC and BDC in a single cylinder engine is :
- (A) Stroke volume (B) Swept volume (C) Total volume (D) Both (A) and (B)
61. Total number of gears in a differential is :
- (A) 2 (B) 3 (C) 4 (D) 6
62. In petrol engine the unit which mix petrol and air is :
- (A) Carburettor (B) Fuel pump (C) Injector (D) Governor
63. Spark plug is used in :
- (A) SI engine (B) CI engine (C) Steam engine (D) All of the above
64. Which of the following factor/factors depends upon tyre life ?
- (A) Inflation (B) Driving style/method
(C) Troubles of vehicle (D) All of the above

65. Tread cracking of a tyre may be due to :
(A) Overloading (B) Over inflation (C) Under inflation (D) All of the above
66. The cross section of connecting rod is :
(A) I section (B) L section (C) D section (D) T section
67. Cam shaft is not required in :
(A) 4 stroke petrol engine (B) 4 stroke diesel engine
(C) Two stroke engine (D) None of these
68. To reduce the noise, engine exhaust is connected to the _____.
(A) Muffler (B) Catalytic converter
(C) Supercharger (D) Turbocharger
69. The lubrication system used in sports car is :
(A) Petroil system (B) Pressure system
(C) Dry sump system (D) Splash system
70. The main constituent of CNG (Compressed Natural Gas) is :
(A) Methane (B) Ethane (C) Butane (D) Propane
71. The reason for the wide use of Aluminium alloy piston is :
(A) Low weight (B) High thermal conductivity
(C) Increased cooling efficiency (D) All of the above
72. Working principle of flywheel in engine is :
(A) Moment of inertia (B) Pascal law
(C) Venturi principle (D) Charles law
73. All the gears in the differential are :
(A) Spur gear (B) Helical gear
(C) Bevel gear (D) Double helical gear

74. A tyre is specified as P 205/75 R14. The digit 75 stands for :
(A) Radius (B) Diameter (C) Aspect ratio (D) Speed rate
75. Which of the following starting drive is used in vehicle ?
(A) Bendix drive (B) Torque tube drive
(C) Hotchkiss drive (D) Full floating drive
76. In the fully charged condition the specific gravity of electrolyte at 15 degree celsius is :
(A) 1.29 (B) 1.11 (C) 1 (D) 2.1
77. A battery of 100 AH (Ampere Hour) can give :
(A) 10 A current for 10 H (B) 20 A for 5 H
(C) 25 A for 4 H (D) All of the above
78. The type of suspension system used in two wheeler is :
(A) Rigid axle (B) Mac Pherson
(C) Swinging half axle (D) Telescopic shock absorber
79. Which of the following battery test uses hydrometer ?
(A) Open volt test (B) Cadmium test
(C) High discharge test (D) Specific gravity test
80. Which of the following works according to Venturi principle ?
(A) FIP (B) Feed pump (C) Carburettor (D) Injector
81. Parliament of India consists of :
(A) Loksabha and Rajyasabha
(B) President, Vice President, Loksabha and Rajyasabha
(C) Attorney General, Loksabha and Rajyasabha
(D) President, Loksabha and Rajyasabha

82. Which is the first state to present a bill on the establishment of Lokayuktha in 1970 ?
(A) Kerala (B) Punjab (C) Odisha (D) Rajasthan
83. The idea for the inclusion of 'Socialist' in the preamble is prompted by :
(A) Indhira Gandhi (B) Jayaprakash Narayan
(C) Acharya Kripalani (D) Ram Manohar Lohya
84. Protection of children from sexual offences' bill passed by Loksabha on :
(A) 2013 May 22 (B) 2012 May 12 (C) 2012 May 22 (D) 2013 May 12
85. The social reformer known as 'Kerala Lincoln' :
(A) Pandit K.P. Karuppan (B) Ayyankali
(C) Sahodaran Ayyappan (D) Pambadi John Joseph
86. Which pair is incorrect ?
(A) Yogakshema Sabha - 1908
(B) Nair Service Society - 1914
(C) Sadhu Jana Paripalana Sangam - 1903
(D) Vaala Samudaya Parishkarani Sabha - 1910
87. 'Prathyaksha Raksha Daiva Sabha' - The organisation for dalit Christians are founded by :
(A) Chavara Kuriyakkose Achan (B) Poykayil Yohannan
(C) Pambadi John Joseph (D) Palakkunnath Ebrahim Malpan
88. Who is the only Malayalee social reformer mentioned in the autobiography of Mahatma Gandhi ?
(A) T.K. Madhavan (B) Sree Narayana Guru
(C) Barister G.P. Pillai (D) Ayyathan Gopalan

89. The slogan 'Gareebhi Hatao' is related to which five year plan ?
 (A) Vth (B) VIth (C) VIIth (D) IVth
90. Who is the first to calculate the national income of India ?
 (A) P.C. Mahalanobis (B) C.D. Deshmukh
 (C) Gulsarilal Nanda (D) Dadabhai Naoroji
91. Who is known as Father of Malayalam Printing ?
 (A) Herman Gundert (B) Benjamin Baily
 (C) Arnose Pathiri (D) Henrik Vanreed
92. The first college in Kerala was started at :
 (A) Thiruvananthapuram (B) Thalassery
 (C) Kozhikode (D) Kottayam
93. Which American country launched the construction of a new canal connecting Atlantic and Pacific ocean ?
 (A) Panama (B) Nicaragua (C) Costarica (D) Mexico
94. Who became the First Indian Footballer to be conferred with the Asian Football Confederation Hall of Fame Award ?
 (A) Baichung Bhutia (B) I.M. Vijayan
 (C) Sunil Chetri (D) Sailen Manna
95. Name the leader of 'Paliyam Sathyagraha' (1947-48). Who died in police action ?
 (A) Madathil Appu (B) Koyithattil Chirukandan
 (C) A.G. Velayudhan (D) Potora Kunhambu Nair
96. Wagon Tragedy Memorial Municipal Town Hall is situated in :
 (A) Tirur (B) Malappuram (C) Manjeri (D) Ponnani