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Score: 65/150 (43.33%)

Code: 5109

1. When did first car rolled in the street of Calcutta?

- A) 1810
B) **1887 (Correct)**
C) 1910
D) 1950

2. Which year Hindustan motor established ambassador car industry in India?

- A) 1900
B) 1900 (Incorrect)
C) 1940
D) **1980**

3. Which type of brake used in heavy vehicle parking?

- A) Hydraulic (Incorrect)
B) **Mechanical**
C) Electrical brake
D) Pneumatic brake

4. Which ministry of India regulate the motor vehicle activity?

- A) Minister of finance
B) Minister of defence (Incorrect)
C) Minister of rural and development
D) **Minister of road transport and highways**

5. Which service equipment is used to lift a car?

- A) Arbor press
B) Hydraulic valve (Incorrect)
C) **Hydraulic hoist**
D) Hydraulic press

6. Which equipment used for quick inspection under chassis of a car?

- A) Stand
B) Screw jack (Incorrect)
C) **Trolley jack**
D) Two post hoist

7. Where the emulsion tube is provided in solex carburetor?

- A) Choke
B) Idle jet (Incorrect)
C) **Main jet**
D) Cold starter

8. What is the specification of 6J x 15?

- A) Tyre size
B) Engine size
C) Vehicle size
D) **Wheel rim size (Correct)**

9. Which digit indicate the engine type in 17 digit of win number?

- A) 2 digit
B) 3 digit
C) 5 digit
D) **8 digit (Correct)**

10. How the amount of work done in a specification is called?

- A) Torque
B) **Power**

C) Stroke length (Incorrect) D) Cycle

11. Which engine has more length?

- A) **Opposed engine**
B) 'V' engine (Incorrect)
C) Inline engine
D) Radial engine

12. Which is the engine having cylinders in 180 Degree?

- A) Inline engine (Incorrect)
B) V- engine
C) **Opposed engine**
D) Radial engine

13. How can identify a four stroke engine?

- A) **Valves**
B) Ports
C) Cavities
D) Passages (Incorrect)

14. What is the working cycle of compression ignition engine?

- A) **Diesel cycle (Correct)**
B) Otto cycle
C) Sterling cycle
D) Rankin cycle

15. How the ports are opened and closed in two stroke engine?

- A) Movement of valve
B) Movement of Rocker arm
C) **Movement of piston**
D) Movement piston pin (Incorrect)

16. How many crank shaft rotation required to open exhaust valve one time in four stoke engine?

- A) One
B) **Two (Correct)**
C) Three
D) Four

17. What is the volume of the space above the piston at TDC?

- A) Swept volume
B) **Clearance volume (Correct)**
C) Total volume
D) Displace volume

18. How many times, ports are open in two rotation of crank shaft in two stroke engine?

- A) One time
B) **Two times (Correct)**
C) Three times
D) Four times

19. Where is the air fuel mixture compressed in the two stroke petrol engine?

- A) Intake port
B) Exhaust port

C) Transfer port (Incorrect) **D) Combustion chamber**

C) IHP

D) RHP

20. How many crank shaft rotations required to get one power in four stroke single cylinder diesel engine?

- A) One
C) Three
B) Two (Correct)
D) Four

31. What is the stroke length of the engine if its throw of the crankshaft is 40 mm?

- A) 20 mm
C) 60 mm (Incorrect)
B) 40 mm
D) 80 mm

21. What is the angle of throw for 4 cylinder engine?

- A) 60 Degree (Incorrect)
C) 120 Degree
B) 90 Degree
D) 180 Degree

32. When the valve clearance to be adjusted?

- A) Fully closed (Incorrect)
C) Fully opened
B) Partially closed
D) Just opened

22. Which is used to determine the stroke of an engine?

- A) Cycle
C) Dia of piston
B) Throw (Correct)
D) Length of connecting rod

33. Which is the starting system used in heavy vehicles?

- A) Electric motor cranking
C) Gasoline engine cranking (Incorrect)
B) Hand cranking
D) Compressed air cranking

23. How the set of operations performed in sequence of motion of the piston in an engine produce power is called?

- A) Cycle (Correct)
C) Stroke
B) Stroke
D) Efficiency

34. Which engine has fuel injection pump?

- A) Petrol engine (Incorrect)
C) CRDI engine
B) Diesel engine
D) MPFI engine

24. Which is the compression pressure of C.I engine?

- A) 90 to 160 psi
C) 290 to 390 psi
B) 180 to 280 psi
D) 400 to 550 psi (Correct)

35. Which engine has carburetor?

- A) Petrol
C) Kerosene
B) Diesel (Incorrect)
D) Mineral oil

25. Which is the engine called as constant volume cycle?

- A) S.I engine (Correct)
C) Turbine engine
B) C.I engine
D) Steam engine

36. What is the mechanical efficiency of an engine?

- A) $(\text{BHP}/\text{IHP}) \times 100$ (Correct)
C) $(\text{IHP}/\text{BHP}) \times 100$
B) $(\text{BHP}/\text{FHP}) \times 100$
D) $(\text{FHP}/\text{BHP}) \times 100$

26. A cycle consisting of one constant pressure, one constant volume and two isentropic processes is known as

- A) Constant volume
C) Diesel Cycle (Correct)
B) Constant pressure
D) Isothermal

37. What is the process of driving exhaust gases in two stroke engine out of cylinder?

- A) Combustion
C) Scavenging
B) Super charging (Incorrect)
D) Intaking

27. A cycle consisting of one constant pressure, one constant volume and two isentropic processes is known as

- A) Constant volume
C) Diesel Cycle
B) Constant pressure
D) Isothermal (Incorrect)

38. Why suction tube in the tank is raised above?

- A) To enter air
C) To enter condensed water
B) To avoid suction of water in fuel (Correct)
D) To act atmospheric pressure

28. How can identify a two stroke engine?

- A) Valves (Incorrect)
C) Cavities
B) Ports
D) Passages

29. What is the compression ratio of an engine, its clearance volume is 10 c.c and swept volume is 90 c.c?

- A) 08:01
C) 10:01 (Correct)
B) 09:01
D) 11:01

39. What is the purpose of valve in AC fuel pump?

- A) Creating suction
C) Supply correct quantity of fuel
B) Creating pressure (Incorrect)
D) Allow the fuel to suck and deliver

30. Which is the power developed in an engine?

- A) BHP
B) IHP (Correct)

40. Which causes the air enter into cylinder?

- A) Air filtering
- C) AC fuel pump pressure

- B) Engine vacuum**
- D) Carburettor air-horn pressure (Incorrect)

41. How the AC mechanical pump's fuel delivery pressure is determined?

- A) Spring pressure on diaphragm
- C) Size of the pumping chamber

- B) Maximum stroke of diaphragm (Correct)**
- D) Maximum deflection of diaphragm

42. What is the purpose of needle valve in carburetor?

- A) Decrease the fuel pressure

- B) Excess supply of fuel at idle

- C) Always holds correct level of fuel (Correct)**

- D) Controls the air flow of the engine

43. What is the purpose of throttle valve in the carburetor?

- A) Filter the fuel
- C) Excess supply of fuel at idle

- B) Always holds correct fuel
- D) Controls air fuel mixture into the engine (Correct)**

44. What is the purpose of accelerating pump circuit?

- A) Provides an economic mixture
- C) Provides mixture for idle speed

- B) Provides mixture for low speed
- D) Provides extra fuel during pick up speed (Correct)**

45. Which device is vaporizing of fuel and mixing it with air in petrol engine?

- A) Tank

- B) Fuel filter

- C) Carburetor (Correct)**

- D) AC fuel pump

46. Which of the following fuel quality determines burning property of petrol?

- A) Volatility

- B) Viscosity

- C) Cetane number

- D) Octane number (Correct)**

47. Which of the following fuel quality determines burning property of diesel?

- A) Volatility

- B) Viscosity

- C) Cetane number**

- D) Octane number (Incorrect)

48. Which of the following fuel quality determines to evaporate?

- A) Volatility**

- B) Viscosity (Incorrect)

- C) Cetane number

- D) Octane number

49. Which of the following fuel quality determines fuel to

flow?

- A) Volatility (Incorrect)

- C) Cetane number

- B) Viscosity**

- D) Octane number

50. Which association of india is playing crucial role in less pollution?

- A) AAI (Automobile Association of India)

- B) AIA (Automotive industry Association)

- C) AASI (Automobile Association if South India)

- D) ARAI (Automotive research association of India) (Correct)**

51. How many national automotive testing and R&D infrastructure projects (NATRIP) are established in India?

- A) 4

- B) 5

- C) 6

- D) 7 (Correct)**

52. How many flywheel rotation requeries to compelet one cycle in two stroke engine?

- A) One**

- B) Two (Incorrect)

- C) Three

- D) Four

53. What is heat?

- A) Torque

- B) Force

- C) Energy (Correct)**

- D) Velocity

54. What is indicated horse power?

- A) Power developed in the cylinder**

- B) Power developed in the flywheel

- C) Power developed in the propeller shaft (Incorrect)

- D) Power developed in the wheel

55. What is brake horse power?

- A) Power available at fly wheel**

- B) Power available at the cylinder

- C) Power available at the wheels

- D) Power available at the gear box (Incorrect)

56. What is the formula for Frictional horse power (FHP)?

- A) IHP - BHP (Correct)**

- B) IHP + BHP

- C) IHP / BHP

- D) BHP / IHP

57. Which oil is used in cooling system?

- A) Lubricant oil

- B) Mineral oil

- C) Coolant oil (Correct)**

- D) Hydraulic oil

58. Which one is the properties of lubricant

- A) Boiling temperature should be low

- B) Should develop foam

C) Oil viscosity should not be same in hot and cold condition
D) Oil viscosity should be suit the operating conditions (Correct)

C) Three valves
D) Four valves

59. Which part drives the oil pump?

A) Crank Shaft
C) Crank pulley
B) Cam Shaft
D) Timing gears (Incorrect)

69. Which part allows to flow water from upper tank to lower tank of the radiator?

A) Fins
C) Water pump (Incorrect)
B) Core tubes
D) Bottom hole

60. Which part is lubricated by splash lubrication system?

A) Timing gears
C) Crank pin
B) Main journal
D) Cylinder wall (Correct)

70. What is the purpose of the radiator in the cooling system?

A) Cool the hot air (Incorrect)
C) Cool the hot water
B) Cool the hot oil
D) Cool the water pump

61. How oil deliver from the crank shaft main bearings to connecting rod bearings?

A) Through drilled oil passages
C) Through sprocket (Incorrect)
B) Through crank pulley
D) Through vibration damper

71. What is the purpose of metal fins in air cooling system?

A) Supply the heat
C) Reduce the heat
B) Increase the heat
D) Maintain the heat (Incorrect)

62. What is the purpose of a radiator pressure cap?

A) Release the excess pressure (Correct)
C) Retain the vacuum pressure
B) Maintain the water temperature
D) Retain the atmospheric pressure

72. Where the metal fins are provided in the air cooled engine?

A) Cylinder and head
C) Valve door (Incorrect)
B) Exhaust pipe
D) Intake manifold

63. What is the purpose of water pump in cooling system?

A) Force the water circulation
C) Increase the water temperature (Incorrect)
B) Reduce the water pressure
D) Flushing out the cooling system

73. Which types of cooling system the rate of cooling is very low?

A) Thermo siphon system (Correct)
C) Forced feed system
B) Air cooling system
D) Pump circulation system

64. Which part is used to pump the water in water pump?

A) Bearing
C) Pulley
B) Shaft (Incorrect)
D) Impeller

74. How the water pump get drive in pump circulation cooling system?

A) By belt (Correct)
C) By chain
B) By gear
D) By coupling

65. What is the effect if thermostat valve is struck?

A) Engine gets over cooling (Incorrect)
C) Engine does not start
B) Engine gets over heating
D) Engine does not stop

75. Which mixture is used in radiator reverse flushing cleaning?

A) Flushing water with air (gun) pressure (Correct)
C) Flushing water with coolant oil
B) Flushing water with engine oil
D) Flushing water with soap oil

66. Where heat dissipation take place in cooling system?

A) Radiator (Correct)
C) Water jackets
B) Water pump
D) Fan

76. When the thermostat valve open in engine?

A) Low temperature of engine (Incorrect)
C) Operating temperature of engine
B) High temperature of engine
D) Freezing temperature of engine

67. Which type of pump is used in water cooling system?

A) Gear pump
C) Centrifugal pump
B) Diaphragm pump (Incorrect)
D) Reciprocating pump

77. Which part helps to increase the water boiling point in water cooling system?

A) Radiator core tubes (Incorrect)
C) Radiator hose
B) Radiator fins
D) Radiator cap

78. Which engine is used the Petrol oil lubrication system?

- A) Four stroke engine
C) Steam engine
B) Two stroke engine (Correct)
D) Battery car

79. What is the purpose of the dip stick used in the engine?

- A) To check oil pressure
C) To check oil density
B) To check oil temperature
D) To check oil level (Correct)

80. Which lubrication system is used separate oil tank?

- A) Wet sump lubrication
C) Petrol - oil lubrication
B) Splash lubrication (Incorrect)
D) Dry sump lubrication

81. Which type of lubrication system is used in two stroke engine?

- A) Dry sump lubrication
C) Petrol-oil lubrication
B) Wet sump lubrication
D) Splash lubrication (Incorrect)

82. What is the main purpose of the lubricant?

- A) Minimise the friction**
C) Increase the wearness (Incorrect)
B) Increase the friction
D) Increase the noise

83. Which system the gear type oil pump is used?

- A) Lubrication system**
C) Fuel system
B) Cooling system
D) Air conditioning system (Incorrect)

84. What is the cause of water leakage in water pump?

- A) Worn out bearing
C) Worn out seal (Correct)
B) Worn out shaft
D) Worn out impeller

85. When it is required to change the water pump bearing?

- A) Water leakage
C) Low water pressure
B) Bearing noisy
D) Fan belt loose (Incorrect)

86. What is the effect if the radiator cores are clogged?

- A) Free coolant flow
C) Stop coolant flow (Correct)
B) Slow coolant flow
D) Increase coolant flow

87. What is the reason pump does not suck the oil?

- A) Less radial clearance
C) Relief valve struck (Incorrect)
B) More backlash
D) Filter clogged

88. What is the material used to produce crank shaft?

- A) Chromium vanadium nickel steel**
C) Cast iron (Incorrect)
B) High speed steel
D) Wrought iron

89. What is the material of piston pins?

- A) Nickel chromium steel**
C) HSS (Incorrect)
B) Cast iron
D) Bronze

90. What is the name the portion below the piston boss?

- A) Land of the piston (Incorrect)
C) Crown of the piston
B) Ring section of the piston
D) Skirt of the piston

91. What type of bearing fitted in the connecting rod big end?

- A) Needle bearing
C) Taper roller bearing
B) Ball bearing (Incorrect)
D) Shell bearing

92. Which part connect the piston with connecting rod?

- A) Piston pin (Correct)**
C) Crank pin
B) Spilt pin
D) Cotter pin

93. Which part is connect the piston with crank pin?

- A) Push rod
C) Cam Shaft (Incorrect)
B) Connecting rod
D) Crank Shaft

94. Which tool used to remove the crank shaft pully?

- A) Double and spanner
C) Pipe wrench
B) Ring spanner
D) Puller (Correct)

95. Which tool is used to measure the diameter of the crank shaft main journal?

- A) Inside micrometer
C) Three point internal micrometer
B) Outside micrometer (Correct)
D) Master ring gauge

96. What is the material for cam shaft?

- A) Forged alloy steel**
C) Aluminium alloy
B) Copper alloy
D) Zinc alloy (Incorrect)

97. Which tool is required to remove the valves?

- A) Torque wrench
C) Box spanner
B) Valve spring lifter (Correct)
D) Scraper

98. Which instrument is used to check the vacuum of the cylinder?

- A) Compression gauge (Incorrect)
B) Dial gauge

C) Vacuum gauge

D) Wire gauge

99. Which measuring instrument used to check the fly wheel face out?

A) Dial indicator

B) Compression gauge

C) Outside micrometer
(Incorrect)

D) Feeler gauge

100. Which is the most preferred use of taper roller bearings?

A) Gear boxes

B) Fly wheel and water pump
(Incorrect)

C) Differential and wheel hub

D) Connecting rods

101. What is the property of a bearing helps to with stand metal to metal contact?

A) Surface action (Correct)

B) Thermal conductivity

C) Fatigue strength

D) Embeddability

102. Which is the most preferred use of roller bearings?

A) Gear boxes

B) Fly wheel

C) Differential

D) Connecting rods
(Incorrect)

103. Which is connected with piston through piston pin?

A) Gudgeon pin

B) Connecting rod
(Correct)

C) Cam shaft

D) Rocker arm

104. Which is the key element in converting reciprocating motion in to rotary motion?

A) Connecting rod
(Correct)

B) Gudgeon pin

C) King pin

D) Cam shaft

105. Which is transferring energy for the piston to crankshaft?

A) Gudgeon pin

B) King pin

C) Connecting rod
(Correct)

D) Cam shaft

106. Which is the load taken by the roller bearing?

A) Radial load

B) Axial load

C) Thrust load

D) Radial and axial load
(Incorrect)

107. What is the load taken by taper roller bearing?

A) Radial load

B) Axial and radial load

C) Thrust load

D) Radial and axial load
(Incorrect)

108. Which is the bearing used in differential and wheel of a heavy vehicles?

A) Ball bearing

B) Roller bearing (Incorrect)

C) Needle bearing

D) Taper roller bearing

109. Which is the bearing used in water pump?

A) Ball bearing (Correct)

B) Roller bearing

C) Needle bearing

D) Taper roller bearing

110. Which is the bearing used in gear boxes?

A) Ball bearing (Correct)

B) Roller bearing

C) Needle bearing

D) Taper roller bearing

111. Which is the most preferred use of bush bearings?

A) Connecting rods
(Incorrect)

B) Fly wheel

C) Crank shaft

D) Oil pumps

112. Where is the compression ring is fitted in the piston?

A) Compression ring above the oil ring in the piston

B) Compression ring bottom of the piston skirt (Incorrect)

C) Compression ring between oil ring and piston pin

D) Compression ring between piston pin and bottom of skirt

113. Which tool is used to remove the piston ring?

A) Drift punch

B) Ring expander (Correct)

C) Circlip plier

D) 'C' clamp

114. What is the purpose of the timing chain?

A) To connect water pump pulley

B) To connect alternator

C) To connect crank or cam shaft gear

D) To connect A/C compressor (Incorrect)

115. What is the purpose of the fly wheel timing mark?

A) To coincide the gears

B) To set the engine timing

C) To set the F.I.P timing

D) To set the valve clearance
(Incorrect)

116. Where the fly wheel is fitted in the engine?

A) Cam shaft

B) Crank shaft (Correct)

C) Rocker arm shaft

D) Primary shaft

117. What is the speed ratio cam shaft to crank shaft?

A) Half (Correct)

B) Equal

C) Double

D) Triple

118. When it is required to coincide the mark with timing gears?

A) During assembling water pump
B) During assembling oil pump (Incorrect)

C) During assembling cam shaft
D) During assembling radiator

119. Which instrument is used to check the tappet clearance?

A) Telescopic gauge (Incorrect)
B) Screw pitch gauge

C) Feeler gauge
D) Wire gauge

120. Which gauge used to measure the cylinder bore weariness?

A) Compression gauge
B) Vacuum gauge (Incorrect)
C) **Dial gauge**
D) Depth gauge

121. What is the property allows a bearing to with stand impact load for a reasonable time?

A) **Fatigue strength**
B) Tensile strength (Incorrect)
C) Toughness
D) Hardness

122. What is the property of bearing helps to absorb dirt and metal particles?

A) Conformability (Incorrect)
B) **Embedability**
C) Surface action
D) Thermal conductivity

123. What is the cause of excessive loading?

A) **Fatigue failure (Correct)**
B) Bearing spread
C) Bearing crush
D) Bearing struck

124. What is the cause for uneven wear of bearings?

A) **Bend twist (Correct)**
B) Excessive lubrication
C) No lubrication
D) Over heat

125. What is ovality of a crank shaft?

A) Difference in dia measured from top to bottom of a crank shaft outer dia
B) **Difference in dia measured thrust to non thrust across dia**
C) Difference in dia measured only at top (Incorrect)
D) Difference in dia measured only at bottom

126. What is the type of hardening done on crank shaft?

A) **Induction hardening**
B) Case hardening
C) Surface hardening (Incorrect)
D) Curve hardening

127. What is ovality of a bore?

A) Difference in dia measured top to bottom
B) **Difference in dia thrust to non thrust side of cylinder (Correct)**

C) Difference in dia measured only at top

D) Difference in dia measured only at bottom

128. What is the effect of taper and ovality of a bore?

A) **Compression loss**
B) Miss firing (Incorrect)
C) Difficult starting
D) False valve timing

129. What is the material of cylinder block?

A) **Cast iron (Correct)**
B) Bronze
C) Brass
D) Zinc alloy

130. What is the reason for corrosion of bearing?

A) Less clearance
B) **Water mixed with lubricant (Correct)**
C) Over loaded
D) Over heated

131. What is the type of mechanical hazards in workshop?

A) Sickness
B) Current leakage
C) **Un guarded machinery (Correct)**
D) Wrong layout of machinery

132. Which type of workshop equipment used to deliver the air pressure to hydraulic hoist?

A) Jib crane
B) **Compressor**
C) Vacuum pump (Incorrect)
D) Hydraulic pump

133. Which part of the human body need to protect in high noise level at work place?

A) **Ear**
B) Eye
C) Nose (Incorrect)
D) Head

134. Which is the cause for lifting equipment failure?

A) Oil change
B) Under load (Incorrect)
C) **Oil seal leak**
D) Check oil level

135. Which equipment is to support under lifting vehicle before working underneath the vehicle for safe work?

A) **Stand**
B) Slings chain (Incorrect)
C) Lifting crane
D) Hydraulic jack

136. Which area is restricted to smoking?

A) Water filling area
B) **Fuel refilling area**
C) Gram market area (Incorrect)
D) Corporation limit area

137. Which type of fuel contains more carbon monoxide?

A) Solid fuel
B) Burnt fuel
C) Liquid fuel
D) **Unburnt fuel (Correct)**

138. Which type of material toxic may cause for lung cancer?

- A) Fiber
- C) Graphite (Incorrect)

- B) Wood
- D) Asbestos**

139. Which device is best for control toxic waste?

- A) Wire brush
- B) Cotton waste (Incorrect)
- C) Air compressor
- D) Vacuum cleaner**

140. Which comes under first aid?

- A) Treating a victim for a shock
- B) Completing a primary source
- C) Assessing a victim's vital signs
- D) Immediate care and support given to injured person (Correct)**

141. Which part of body, if bleeding profusely is considered serious and need professional attention?

- A) Leg
- B) Knee
- C) Wrist (Correct)**
- D) Buttock

142. What is your immediate action on completion of first aid?

- A) Call taxi
- B) Call your friend (Incorrect)
- C) Call fire service
- D) Call emergency service**

143. What is the type of fire with wood, cloth, and paper?

- A) Class - A (Correct)**
- B) Class - B
- C) Class - C
- D) Class - D

144. What is the class of gas burning fire?

- A) Class - A
- B) Class - B (Incorrect)
- C) Class - C**
- D) Class - D

145. Which type of fire extinguisher unsuitable for electric

fire?

- A) CO₂
- B) CTC (Incorrect)
- C) Foam**
- D) Dry powder

146. Which type of fire extinguisher suitable for class 'A' fire?

- A) Halon
- B) Dry powder
- C) Foam or water (Correct)**
- D) Carbon-di-oxide

147. Which fire extinguisher suitable for class 'C' fire?

- A) Foam filled extinguisher
- B) Water filled extinguisher
- C) Dry powder fire extinguisher**
- D) Carbon-di-oxide fire extinguisher (Incorrect)

148. Which type of energy conservation opportunity involves stopping of water leakage points?

- A) Minor energy conservation opportunities (Correct)**
- B) Major energy conservation opportunities
- C) Medium energy conservation opportunities
- D) Extra major energy conservation

149. What is the procedure to be carried out if an electric shock victim unable to release his grip from the conductor?

- A) Make sure the power is turned off**
- B) Cover all burns with a dry loose dressing
- C) Place the victim on one side with head down (Incorrect)
- D) Ask a bystander to help you to move the

150. Which is the major energy conservation opportunity?

- A) Stopping of leakage
- B) Replacement machineries (Correct)**
- C) Replacement of house hold appliance
- D) Laps in housekeeping