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Score: 105/150 (70.00%)

Code: 3019

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

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

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

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

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

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

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

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

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

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

6. 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)**

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

- A) Torque      **B) Power (Correct)**  
C) Stroke length      D) Cycle

8. Which engine has more length?

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

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

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

10. How can identify a four stroke engine?

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

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

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

12. 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

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

- A) Intake port      B) Exhaust port  
C) Transfer port      **D) Combustion chamber (Correct)**

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

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

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

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

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

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

17. How can identify a two stroke engine?

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

18. 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      B) 09:01  
**C) 10:01 (Correct)**      D) 11:01

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

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

20. Which engine has fuel injection pump?

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

21. Which engine has carburetor?

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

22. What is the mechanical efficiency of an engine?

- A) (BHP/IHP)x100 (Correct)** B) (BHP/FHP)x100  
C) (IHP/BHP)x100 D) (FHP/BHP)x100

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

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

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

- A) Spring pressure on diaphragm (Incorrect) B) **Maximum stroke of diaphragm**  
C) Size of the pumping chamber D) Maximum deflection of diaphragm

25. 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

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

- A) Volatility B) Viscosity  
C) Cetane number (Incorrect) D) **Octane number**

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

- A) Volatility B) Viscosity  
C) **Cetane number (Correct)** D) Octane number

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

- A) Volatility (Correct)** B) Viscosity

- C) Cetane number D) Octane number

29. Which of the following fuel quality determines fuel to flow?

- A) Volatility B) **Viscosity**  
C) Cetane number (Incorrect) D) Octane number

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

- A) AAI (Automobile Association of India) (Incorrect) B) AIA (Automotive industry Association)  
C) AASI (Automobile Association if South India) D) **ARAI (Automotive research association of India)**

31. How many flywheel rotation requiries to compelet one cycle in two stroke engine?

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

32. What is indicated horse power?

- A) Power developed in the cylinder (Correct)** B) Power developed in the flywheel  
C) Power developed in the propeller shaft D) Power developed in the wheel

33. Which oil is used in cooling system?

- A) Lubricant oil B) Mineral oil (Incorrect)  
C) **Coolant oil** D) Hydraulic oil

34. 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 (Incorrect) D) **Oil viscosity should be suit the operating conditions**

35. Which part drives the oil pump?

- A) Crank Shaft B) **Cam Shaft (Correct)**  
C) Crank pulley D) Timing gears

36. Which part is lubricated by splash lubrication system?

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

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

- A) Through drilled oil passages (Correct)** B) Through crank pulley  
C) Through sprocket D) Through vibration damper

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

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

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

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

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

- A) Bearing      B) Shaft  
C) Pulley      **D) Impeller (Correct)**

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

- A) Engine gets over cooling      **B) Engine gets over heating (Correct)**  
C) Engine does not start      D) Engine does not stop

42. Where heat dissipation take place in cooling system?

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

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

- A) Gear pump      B) Diaphragm pump  
**C) Centrifugal pump (Correct)**      D) Reciprocating pump

44. How many valves are used in radiator cap?

- A) One valve (Incorrect)      **B) Two valves**  
C) Three valves      D) Four valves

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

- A) Fins      **B) Core tubes (Correct)**  
C) Water pump      D) Bottom hole

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

- A) Cool the hot air      B) Cool the hot oil  
**C) Cool the hot water (Correct)**      D) Cool the water pump

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

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

48. Where the metal fins are provided in the air cooled

engine?

- A) Cylinder and head (Correct)**      B) Exhaust pipe  
C) Valve door      D) Intake manifold

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

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

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

- A) By belt**      B) By gear  
C) By chain      D) By coupling (Incorrect)

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

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

52. When the thermostat valve open in engine?

- A) Low temperature of engine      B) High temperature of engine  
**C) Operating temperature of engine (Correct)**      D) Freezing temperature of engine

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

- A) Radiator core tubes      B) Radiator fins  
C) Radiator hose      **D) Radiator cap (Correct)**

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

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

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

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

56. Which lubrication system is used separate oil tank?

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

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

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

58. What is the main purpose of the lubricant?

- A) Minimise the friction (Correct)**      B) Increase the friction  
C) Increase the weariness      D) Increase the noise

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

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

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

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

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

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

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

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

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

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

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

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

65. What is the material of piston pins?

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

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

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

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

- A) Needle bearing      B) Ball bearing

- C) Taper roller bearing (Incorrect)      **D) Shell bearing**

68. Which part connect the piston with connecting rod?

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

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

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

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

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

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

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

72. What is the material for cam shaft?

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

73. Which tool is required to remove the valves?

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

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

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

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

- A) Dial indicator (Correct)**      B) Compression gauge  
C) Outside micrometer      D) Feeler gauge

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

- A) Gear boxes      B) Fly wheel and water pump  
**C) Differential and wheel hub (Correct)**      D) Connecting rods

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

- A) Surface action  
C) Fatigue strength
- B) Thermal conductivity  
D) Embeddability (Incorrect)

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

- A) Gear boxes  
C) Differential (Incorrect)
- B) Fly wheel  
D) Connecting rods

79. Which is connected with piston through piston pin?

- A) Gudgeon pin  
C) Cam shaft
- B) **Connecting rod (Correct)**  
D) Rocker arm

80. Which is the key element in converting reciprocating motion into rotary motion?

- A) **Connecting rod**  
C) King pin
- B) Gudgeon pin (Incorrect)  
D) Cam shaft

81. Which is transferring energy from the piston to crankshaft?

- A) Gudgeon pin  
C) **Connecting rod (Correct)**
- B) King pin  
D) Cam shaft

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

- A) **Radial load (Correct)**  
C) Thrust load
- B) Axial load  
D) Radial and axial load

83. What is the load taken by a taper roller bearing?

- A) Radial load  
C) Thrust load
- B) **Axial and radial load**  
D) Radial and axial load (Incorrect)

84. Which is the bearing used in differentials and wheels of heavy vehicles?

- A) Ball bearing  
C) Needle bearing
- B) Roller bearing  
D) **Taper roller bearing (Correct)**

85. Which is the bearing used in a water pump?

- A) **Ball bearing (Correct)**  
C) Needle bearing
- B) Roller bearing  
D) Taper roller bearing

86. Which is the bearing used in gear boxes?

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

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

- A) Connecting rods  
C) Crank shaft
- B) **Fly wheel**  
D) Oil pumps (Incorrect)

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

- A) **Compression ring above the oil ring in the piston**  
C) Compression ring between oil ring and piston pin
- B) Compression ring bottom of the piston skirt (Incorrect)  
D) Compression ring between piston pin and bottom of skirt

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

- A) Drift punch  
C) Circlip plier
- B) **Ring expander (Correct)**  
D) 'C' clamp

90. What is the purpose of the timing chain?

- A) To connect water pump pulley  
C) **To connect crank or cam shaft gear (Correct)**
- B) To connect alternator  
D) To connect A/C compressor

91. What is the purpose of the flywheel timing mark?

- A) To coincide the gears (Incorrect)  
C) To set the F.I.P timing
- B) **To set the engine timing**  
D) To set the valve clearance

92. Where is the flywheel fitted in the engine?

- A) Cam shaft  
C) Rocker arm shaft
- B) **Crank shaft (Correct)**  
D) Primary shaft

93. What is the speed ratio of cam shaft to crank shaft?

- A) **Half (Correct)**  
C) Double
- B) Equal  
D) Triple

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

- A) During assembling water pump  
C) **During assembling cam shaft (Correct)**
- B) During assembling oil pump  
D) During assembling radiator

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

- A) Telescopic gauge  
C) **Feeler gauge**
- B) Screw pitch gauge (Incorrect)  
D) Wire gauge

96. Which gauge is used to measure the cylinder bore weariness?

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

97. What is the property that allows a bearing to withstand impact load for a reasonable time?

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

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

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

99. What is the cause of excessive loading?

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

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

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

101. 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 (Correct)**  
C) Difference in dia measured only at top  
D) Difference in dia measured only at bottom

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

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

103. 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**  
C) Difference in dia measured only at top  
D) Difference in dia measured only at bottom (Incorrect)

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

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

105. What is the material of cylinder block?

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

106. What is the reason for corrosion of bearing?

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

107. How much pressure develop the CRDI- diesel engine pump?

- A) 100 - 200 bar                      B) 200 - 600 bar

C) 600 - 1000 bar

**D) 1000 - 1600 bar (Correct)**

108. Where is fuel injector fitted?

- A) Cylinder head (Correct)**    B) Cylinder block  
C) Head cover                          D) Crank case

109. Which electronic device controls the engine system?

- A) Regulator                              **B) Ecm (Correct)**  
C) Fuse                                      D) Switch

110. How many fuel chamber's are in HEUI?

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

111. Which part connected in between inlet manifold and low pressure chamber of pneumatic governor?

- A) Accelerator cable (Incorrect)            **B) Vacuum tube**  
C) Stop lever cable                      D) Throttle lever

112. How the quantity of fuel delivery vary in a running diesel engine?

- A) By plunger                              B) By control sleeve (Incorrect)  
**C) By control rack**                      D) By injection

113. Where the fuel feed pump of a diesel engine usually mounted?

- A) Fuel Filter                              B) Fuel gallery  
C) Fuel injector                          **D) Fuel injection pump (Correct)**

114. Which type of engine has common rail direct fuel injection system?

- A) Steam engine (Incorrect)    **B) Diesel engine**  
C) Turbine engine                      D) Wankle engine

115. How the CRDI injectors pressure control valve operated?

- A) Mechanically                          **B) Electronically (Correct)**  
C) Manually                              D) Hydraulic

116. Where is the pressure discharge valve is fitted in CRDI fuel system?

- A) Common rail (Correct)**    B) Fuel pump  
C) Injectors                              D) Fuel filter

117. Which is develop diesel pressure in the CRDI engine?

- A) ECM                                      B) Injection

C) Fuel tank

**D) High pressure pump (Correct)**

**A) To minimize the slushing of fuel in the tank (Correct)**

B) To strengthen the fuel tank

118. What is the function of heater plug?

A) Warm up fuel pump (Incorrect)

**B) Warm up combustion chamber**

C) Warm up injector

D) Warm up valves

C) To make chambers in the fuel tank

D) To make square and lengthy fuel tank

119. Which is leak proof between nozzle and nozzle body?

A) Increase the power

B) Prevent dirty smoke

C) Easy starting

**D) Mirror polishing finish in nozzle and body (Correct)**

128. What is the defects of air lock in the fuel system?

A) Hard running of the engine (Incorrect)

**B) erratic running of the engine**

C) Smooth running of the engine

D) Continuous running of the engine

120. How much maximum fuel pressure developed in fuel injection pump?

A) 100 to 200 Kgf/cm<sup>2</sup>

B) 200 to 300 Kgf/cm<sup>2</sup>

C) 300 to 400 Kgf/cm<sup>2</sup>

**D) 400 to 700 Kgf/cm<sup>2</sup> (Correct)**

129. Which action the spindle only move up and down in feed pump?

**A) Idling action**

B) Partial action (Incorrect)

C) Normal action

D) pumping action

121. Which governor has fitted the control rack with diaphragm?

A) Mechanical governor

**B) Pneumatic governor (Correct)**

C) Servo governor

D) Centrifugal governor

130. Which part connects the petrol engine inlet manifold?

A) Air filter

B) Injector

**C) Carburetor**

D) Fuel pump (Incorrect)

122. Which fuel related with cetane number?

A) Petrol

**B) Diesel (Correct)**

C) Coal

D) Kerosene

131. What is the material of inlet manifold?

A) Brass

B) Bronze

C) Stainless steel

**D) Aluminium alloy (Correct)**

123. Which is the process of fuel bleeding system?

A) Burn the air

B) Pump the air

**C) Remove the air (Correct)**

D) Pressurize the air

132. Which component is related to exhaust system?

**A) Muffler (Correct)**

B) Air filter

C) Carburetor

D) Injection pump

124. Where is the delivery pipe of fuel feed pump connected?

A) Fuel tank

**B) Fuel filter (Correct)**

C) Fuel gallery

D) Fuel injection pump

133. Which is related to pneumatic system?

A) Steam

B) Electric

**C) Compressed air (Correct)**

D) Pressurized water

125. When do we use the hand priming pump?

**A) Engine is at rest (Correct)**

B) Engine is at full load

C) Engine is at full speed

D) Engine is at idling speed

134. Where is the turbocharger mounted?

A) Air filter

B) Inlet manifold (Incorrect)

C) Cylinder head

**D) Exhaust manifold**

126. Which valve is maintaining in the high pressure FIP pipe line?

A) Control rack

**B) Delivery valve (Correct)**

C) Barrel

D) Plunger

135. What is the material of exhaust manifold?

A) Brass

B) Bronze

**C) Cast iron (Correct)**

D) Steel alloy

127. What is the purpose of baffles in the fuel tank?

136. Which type of muffler produces anti noise without restricting exhaust flow?

A) Baffle type

**B) Electronic type**

C) Reverse flow type

D) Straight through type (Incorrect)

137. Which type of muffler is fitted with sensors and microphone ?

- A) **Electronic type (Correct)** B) Resonance type  
C) Reverse flow type D) Straight through type

138. Which process is taken place in catalytic convertor?

- A) Thermal B) Physical  
C) **Chemical (Correct)** D) Biological

139. What is the purpose of the turbo charger?

- A) Save power B) Scavenging  
C) Filter the exhaust gas D) **Pump more air into the cylinder (Correct)**

140. How does a turbocharger get drive?

- A) By belt B) By gear  
C) By inlet gas D) **By exhaust gas (Correct)**

141. Which one of the following acts as a flame arrester during engine back fire?

- A) Muffler B) Oil filter  
C) **Air filter (Correct)** D) Fuel filter

142. Which type of filter element is fitted in dry type air cleaner?

- A) Cloth B) **Paper (Correct)**  
C) Strainer D) Wire mesh

143. What is the purpose of the muffler in the exhaust system?

- A) To reduce the heat B) **To reduce the noise (Correct)**  
C) To reduce the vibration D) To filter the exhaust gases

144. Where the exhaust system muffler is connected?

A) **Between exhaust pipe and tail pipe** B) Between tail pipe and exhaust manifold

C) Between engine head and exhaust manifold D) Between exhaust pipe and exhaust manifold (Incorrect)

145. Where the catalytic converters are used?

- A) Fuel system (Incorrect) B) Inlet system  
C) **Exhaust system** D) Lubrication system

146. What is the purpose of catalytic converter?

- A) Control the noise B) **Control the emission (Correct)**  
C) Control the temperature D) Control the fuel consumption

147. Where the catalytic converter is fitted?

- A) Between muffler and tail pipe B) **Between exhaust pipe and muffler (Correct)**  
C) Between tail pipe and resonator pipe D) Between engine head and exhaust manifold

148. Which are the materials commonly used in the catalytic converter?

- A) Zinc and molybdenum B) **Palladium and platinum (Correct)**  
C) Asbestos and ceramics D) Chromium and vanadium

149. What is the reason to decrease the volumetric efficiency in exhaust system?

- A) Low noise B) High temperature (Incorrect)  
C) Low temperature D) **Excessive back pressure**

150. Which metal in the fuel is to be avoided while fitting catalytic convertor?

- A) Tin B) **Lead (Correct)**  
C) Chromium D) Phosphorus