

Name _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) The Ford Escape and Mercury Mariner hybrid gasoline engines use the Atkinson cycle. This means that the engine _____. 1) _____
 - A) Has eight cycles instead of four cycles
 - B) Has no spark plugs
 - C) Uses just one valve per cylinder
 - D) Delays the closing of the intake valves

- 2) What term is used to describe the completely insulated ground circuit in the high voltage system? 2) _____
 - A) Floating ground
 - B) Ground protection
 - C) Enhanced polarity
 - D) None of these

- 3) The electric traction motor in the Mariner and Escape produces the equivalent of approximately what horsepower? 3) _____
 - A) 93
 - B) 125
 - C) 250
 - D) 30

- 4) Which eCVT mode is used in highway driving situations where the ICE must be running and the high voltage battery pack does not need to be charged? 4) _____
 - A) Negative-split mode
 - B) Positive-split mode
 - C) Both A and B
 - D) Neither A nor B

- 5) Where is the 12 volt battery located on a Ford/Mercury hybrid vehicle? 5) _____
 - A) In the trunk
 - B) Under the hood
 - C) Under the rear seat cushion
 - D) Behind the gas engine

- 6) Technician A says that there are six modes of transaxle operation in the Escape/Mariner HEV. Technician B says that the vehicle's eCVT operates in two modes. Which technician is correct? 6) _____
 - A) Technician A only
 - B) Technician B only
 - C) Both technicians
 - D) Neither technician

- 7) What are the tasks of the generator motor? 7) _____
- A) Generating electric current
 - B) Restarting the ICE after shutdown
 - C) Control the drive ratio in the transaxle's planetary gearset
 - D) All of these are correct
- 8) What cools the DC to DC converter on the Escape/Mariner HEV? 8) _____
- A) The engine cooling system
 - B) The transaxle cooling system
 - C) Both A and B
 - D) Neither A nor B
- 9) The modified Atkinson combustion cycle in Ford/Mercury hybrid electric vehicles provides _____ 9) _____
- A) A low compression ratio at higher RPM
 - B) A high compression ratio at lower RPM
 - C) A constant compression ratio throughout the RPM range
 - D) None of these
- 10) All of these are true regarding the instrument panel displays used in Ford hybrid electric vehicles EXCEPT _____. 10) _____
- A) They feature a gauge to measure efficiency called the "green" gauge
 - B) They alert the driver of the need for vehicle service with a yellow wrench symbol
 - C) The largest gauge instrument is the tachometer
 - D) All of these are true

Answer Key

Testname: HYBRID4_15B

1) D

Page Ref: 252

2) A

Page Ref: 256

3) A

Page Ref: 255

4) A

Page Ref: 254

5) A

Page Ref: 263

6) D

Page Ref: 254-255

7) D

Page Ref: 255-256

8) B

Page Ref: 258

9) D

Page Ref: 252-253

10) D

Page Ref: 251