Conventional & Non Conventional Power Stations
QUIZ-MID-II

MULTIPLE CHOICE

1. **wich wind turbine is stable?**

   a. Horizontal axis wind turbine
   b. Vertical axis wind turbine
   c. Both A and B
   d. None of the above

   ANS: A PTS: 1

2. The plants in which the process of conversion of the kinetic energy of flowing water into electric energy takes place are known as

   a. thermal power plant
   b. hydropower plant
   c. biomass
   d. gobar gas

   ANS: B PTS: 1

3. The working of the dynamo and rotor assembly in power plants works on the principle of…….

   a. Faraday's law of electromagnetic induction
   b. Joule's heating effect
   c. Magnetic effect of electric current
   d. none of these

   ANS: A PTS: 1

4. **Which of the following statement is true about conventional energy sources?**

   a. They cause minimum pollution
   b. They are available in limited quantity
   c. Coal is the most used conventional energy source in the world
   d. There are sufficient reserves of Coal, Petroleum, and Natural gas for the next 300 years

   ANS: B PTS: 1

5. **The plant where process heat energy is converted into electric energy due to the burning of fossil fuel is known as……..**

a. tidal power plant
c. thermal power plant
b. hydropower plant
d. geothermal power plant

ANS: C PTS: 1

6.

Bio-gas is also known as……

a. LPG
c. Steam
b. CNG
d. Gobar-gas

ANS: D PTS: 1

7.

After complete decomposition in the biogas plant the gases like……. are generated.

a. Methane
c. H_2S
b. CO_2
d. all of these.

ANS: D PTS: 1

8. **which if the followling are the wave energy converter devices**

a. Pitching type
c. Pitching and heaving type
b. Heaving type
d. All of the above

ANS: D PTS: 1

9. **The function of a solar collector is to convert.....**

a. Solar Energy into Electricity
c. Solar Energy thermal energy
b. Solar Energy Radiation
d. Solar Energy mechanical energy

ANS: C PTS: 1

10. **Flat plate collector absorbs.....**

a. Direct radiation only
c. Direct and diffuse both
b. Diffuse radiation only
d. All of the above

ANS: C PTS: 1

11. **A pyranometer is used for the measurement of.....**

a. Direct radiation only
c. Direct as well as diffuse radiation
b. Diffuse radiation only
d. None of the above

ANS: C PTS: 1

12. **Most widely used solar material is.....**

a. Arsenic
c. Silicon
b. Cadmium
d. Steel

ANS: C PTS: 1

13. **Photovoltaic cell or solar cell converts.....**

a. Thermal energy into electricity
c. Solar radiation into nuclear energy
b. Photon energy directly into electricity
d. Solar radiation into kinetic energy

ANS: B PTS: 1

14. **Temperature attained by a flat-plate collector is of the.....**

a. Order of about 90^0C
c. Above 150^0C
b. Range of 100^0C to 150^0C
d. None of the above

ANS: A PTS: 1

15. **Thermionic converter utilizes.....**

a. Thermionic emission effect
c. Seebeck effect
b. Peltier effect
d. None of the above

ANS: A PTS: 1

16. **Thermo electric power generation utilizes.....**

a. Thermionic emission effect
c. Seebeck effect
b. Thermal effect
d. None of the above

ANS: C PTS: 1

17. **What is solar heating and cooling?**

a. Use solar energy to regulate the internal temperature of a given space
c. Use solar energy to monotonically increase the internal temperature of a given space
b. Use solar energy to regulate the temperature of the environment
d. Use solar energy to monotonically decrease the temperature of a given space

ANS: A PTS: 1

18. **The availability of Renewable energy sources is _____**

a. uncertain
c. high
b. constant
d. regular

ANS: A PTS: 1

19. **How many high tides occur every day?**

a. One
b. Two
c. Four
d. Three

ANS: B PTS: 1

20. **Which of the following are types of systems used in ocean thermal energy conversion?**

a. Horizontal and vertical
b. Vertical and open cycle
c. Open cycle and closed cycle
d. Horizontal and closed cycle

ANS: C PTS: 1

21. **_____ turbine is used in closed-cycle ocean thermal energy conversion.**

a. Horizontal
b. Low-pressure
c. High-pressure
d. Vertical

ANS: B PTS: 1

22. The wind is defined as

a. air blowing very fast
b. air blowing very slow
c. air blowing at a point
d. still air

ANS: C PTS: 1

23. Wind energy can be used to

a. generate electricity
b. operate flour mills
c. draw underground water
d. all of the above

ANS: D PTS: 1

24. What is the main source for the formation of wind?

a. Uneven land
b. Sun
c. Vegetation
d. Seasons

ANS: B PTS: 1

25. Which of the following source of energy caused by uneven heating of earth's surface

a. wind
b. solar
c. biomass
d. geothermal

ANS: B PTS: 1

26. Wind energy is harnessed as _____ energy with the help of windmill or turbine.

a. mechanical
c. electrical
b. solar
d. heat

ANS: B PTS: 1

27. Which type of turbine is commonly used in tidal energy?
a. Francis turbine
c. Pelton wheel
b. Kaplan turbine
d. Gorlov turbine

ANS: B PTS: 1

28. For exactly how much time does it take for one tidal cycle?
a. 22h, 20mi
c. 20h, 10min
b. 24h, 50min
d. 22h, 50min

ANS: B PTS: 1

29. In an open cycle MHD-steam power plant, the temperature at the entrance of The HD duct is (in K)?
a. 2500-3000
c. 1500-2000
b. 2000-2500
d. 2250

ANS: A PTS: 1

30. The air at the entrance of The HD duct is seeded with potassium up to _____
a. 7%
c. 5%
b. 3%
d. 1%

ANS: D PTS: 1

31. In a-closed cycle MHD-steam power plant, which of the following gas is seeded in the MHD duct?
a. helium
c. sodium vapour
b. xenon
d. chlorine

ANS: A PTS: 1

32. Where is the input of the MHD duct heated in a closed cycle MHD-steam power plant?
a. blast furnace
c. reverberatory furnace
b. nuclear reactor
d. combustion chamber

ANS: B PTS: 1

33. Which is the only fuel better than coal for use?
a. natural gas
c. kerosene
b. char
d. benzene

ANS: B PTS: 1

34. The term biomass most often refers to _____
a. Inorganic matter
c. Chemicals
b. Organic matter
d. Ammonium compounds

ANS: B PTS: 1

35. Biomass is useful to produce _____
    a. Chemicals
    b. Fibres
    c. Biochemicals
    d. Transportation fuels

    ANS: D PTS: 1

36. The production of bioethanol is by fermenting the _____ and starch components.
    a. Acid
    b. Milk
    c. Sugar
    d. Alcohol

    ANS: C PTS: 1

37. To make transport fuel the bioethanol is blended with _____
    a. Diesel
    b. Petrol
    c. Oil
    d. Kerosene

    ANS: B PTS: 1

38. _____ is called the biogas
    a. Bioethanol
    b. Biomethane
    c. Biodiesel
    d. Biobutanol

    ANS: B PTS: 1

39. Fuel cell performance is not limited by _____
    a. First law of Thermodynamics
    b. Second law of Thermodynamics
    c. Third law of Thermodynamics
    d. All three laws are applicable

    ANS: D PTS: 1

40. For which of these devices do derogative charge carriers flow from anode to cathode in the external circuit?
    a. MHD generator
    b. Thermionic generator
    c. Thermoelectric generator
    d. Fuel cell

    ANS: D PTS: 1

41. The fuel cell is considered a battery in which _____ is continuously replaced.
    a. fuel only
    b. oxidizer
    c. both fuel and oxidizer
    d. none of the mentioned

    ANS: D PTS: 1

42. What is used to turn wind energy into electrical energy?
    a. Turbine
    b. Generators
    c. Yaw motor
    d. Blades

    ANS: A PTS: 1

43. A solar cell converts light energy into _____
    a. Electrical energy
    b. Thermal energy
    c. Sound energy
    d. Heat energy

    ANS: A PTS: 1

44. Series and parallel combination of the solar cell is known as _____
a) b) c)
a. Solar array
b. Solar light
c. Solar sight
d. Solar eye

ANS: A PTS: 1

45. Full form of BEL is _____
a. Busy Electronics Limited
b. Burden Electrical Limited
c. Bharat Electronics Limited
d. Brahma Electrical Limited

ANS: C PTS: 1

46. Material used for making solar cell is _____
a. Silicon
b. Carbon
c. Sodium
d. Magnesium

ANS: A PTS: 1

47. A solar cell is a _____
a. P-type semiconductor
b. N-type semiconductor
c. Intrinsic semiconductor
d. P-N Junction

ANS: D PTS: 1

48. How many types of Silicon solar cells?
a. One
b. Two
c. Three
d. Four

ANS: C PTS: 1

49. In which collector the efficiency is maximum _____
a. Flat Plate
b. Line Focusing
c. Evacuated Tube
d. Paraboloid Dish

ANS: D PTS: 1

50. Which cell is used to converts solar energy directly into electrical energy _____
a. Dry cell
b. Photoelectric cell
c. Battery
d. None of the above

ANS: B PTS: 1

51. The energy which is stored as latent heat is called as _____ energy
a. Mechanical energy
b. Electrical energy
c. Thermal energy
d. None of the above

ANS: C PTS: 1

52. The solar energy directly used for _____
a. Drying
b. Water heating
c. Distillation
d. All of the above

ANS: D PTS: 1

53. _____ radiation is called as a diffuse radiation

a. Scattered solar radiation
b. Beam radiation
c. Infrared radiation
d. None of the above

ANS: A PTS: 1

54. From the sun the solar energy is radiated in the form of _____ waves
a. Electromagnetic waves
b. Infrared waves
c. Transverse waves
d. None of the above

ANS: A PTS: 1

55. In solar cells _____ material is used
a. Copper
b. Silver
c. Silicon
d. None of the above

ANS: C PTS: 1

56. The sun emits _____ radiations
a. Infrared
b. Visible
c. Small amount of ultraviolet
d. All of the above

ANS: D PTS: 1

57. Visible radiations gives _____ energy
a. Light energy
b. Heat energy
c. Both a and b
d. None of the above

ANS: A PTS: 1

58. Infrared radiations gives _____ energy
a. Light energy
b. Heat energy
c. Both a and b
d. None of the above

ANS: B PTS: 1

59. In how many ways we can harness solar energy?
a. One-way
b. Two ways
c. Three ways
d. Four ways

ANS: B PTS: 1

60. Plants convert solar energy into _____ energy
a. Chemical energy
b. Light energy
c. Heat energy
d. None of the above

ANS: A PTS: 1

61. Solar energy can leads to generate the electricity through _____
a. Heat engines
b. Photovoltaics
c. Heat engines and Photovoltaics
d. None of the above

ANS: C PTS: 1

62. The solar energy is essentially useful in _____ contexts
a. Solar thermal
b. Solar photovoltaics
c. Solar thermal and Solar photovoltaics
d. None of the above

ANS: C PTS: 1

63. The high temperature in the concentrating solar technologies divided into how many parts?
a. One
b. Two
c. Three
d. Four

ANS: B PTS: 1

64. Choose the odd one out
a. Coal
b. Petroleum
c. Oil
d. Biomass

ANS: D PTS: 1

65. What are the different methods of solar energy utilizations?
a. Direct method
b. Indirect method
c. Both a and b
d. None of the above

ANS: C PTS: 1

66. The thin bottom layer of the semiconductor in the solar cell is also called as _____
a. P - type
b. N - type
c. PNP - type
d. All of the above

ANS: A PTS: 1

67. The efficiency achieved from photovoltaic is almost _____
a. 20-45%
b. 20-40%
c. 19-24%
d. None of the above

ANS: C PTS: 1

68. The total efficiency of the solar thermal power plant is divided into _____
a. Receiver efficiency
b. Generator efficiency
c. Both a and b
d. None of the above

ANS: C PTS: 1

69. What is the source of solar energy?
a. Nuclear fusion
b. Nuclear power plant
c. Coal
d. None of the above

ANS: A PTS: 1

70. The top layer of the semiconductor in the solar cell consists of _____
a. Silicon
b. Phosporous
c. Silicon and phosphorous
d. All of the above

ANS: C PTS: 1

71. The thin bottom layer of the semiconductor in the solar cell consists of _____
a. Silicon
b. Boron
c. Silicon and boron
d. All of the above

ANS: C PTS: 1

72. What are the renewable energy sources of energy?

a. Energy from wind, sun
b. Energy from flowing water, ocean waves
c. Fossil fuels such as coal, petroleum
d. Both a and b

ANS: D PTS: 1

73. 1. What is hot molten rock called?
a. Lava
b. Magma
c. Igneous rocks
d. Volcano

ANS: B PTS: 1

74. Which of the following categories does tidal power fall into?
a. Hydrothermal
b. Hydropower
c. Solar
d. Wind

ANS: B PTS: 1

75. What is/are the cause(s) of tides?
a. Gravitational pull of moon
b. Gravitational pull of moon and sun
c. Gravitational pull of sun and moon and rotation of earth
d. Gravitational pull of sun

ANS: C PTS: 1

76. In terms of predictability, tidal energy _____ solar and wind.
a. is more predictable than
b. has similar predictability like
c. is less predictable than
d. cannot be predicted unlike

ANS: A PTS: 1

77. What type of energy is wave energy?
a. Non – conventional
b. Commercial
c. Non – renewable
d. Exhaustible

ANS: A PTS: 1

78. Kinetic energy that results from the oscillation of water is called _____
a. Wave energy
b. Tidal energy
c. Ocean thermal energy
d. Hydro energy

ANS: A PTS: 1

79. Earth's outer layer rock is called as ____
a. Mantle
c. Outer core

b. Crust
d. Asthenosphere

ANS: B PTS: 1

80. Geothermal energy is the thermal energy present

a. On the surface of the earth
c. On the surface of the ocean
b. In the interior of the earth
d. None of the above

ANS: B PTS: 1

81. Which of the following advantages of Geothermal Energy?

a. Geothermal energy is relatively less expensive
c. No fuel is burnt since heat is derived from an abundant underground reservoir
b. It has no emissions and produces 10% carbon dioxide
d. All of the above

ANS: D PTS: 1

82.

The term biomass most commonly refers to

a. Inorganic matter
c. Ammonium compounds
b. Chemicals
d. Organic matter

ANS: D PTS: 1

83.

The biogas is referred to as ____

a. Bio ethanol
c. Bio butanol
b. Biodiesel
d. Bio methane

ANS: D PTS: 1

84.

The term “biomass” comes from the

a. Commercial source
c. Non Renewable resources
b. Renewable energy resources
d. None of these

ANS: B PTS: 1

85.

What is biomass energy and how does it work?

a. Energy generated from wind
c. Energy generate from ocean waves
b. Energy generate from river
d. Energy generate from plant and animal

ANS: D PTS: 1

86.

The bio ethanol undergoes rectification in order to eliminate

a. Sugar
c. Enzymes
b. Impurities
d. Yeast

ANS: B PTS: 1

87.

The by-products produced during bio ethanol rectification are used as_____.

a. Pig feed
c. Dog feed
b. Cow feed
d. Sheep feed

ANS: C PTS: 1

88.

Bio ethanol is mixed with ____ to generate transportation fuel.

a. Diesel
c. Kerosene
b. Oil
d. Petrol

ANS: B PTS: 1

89.

Which of the following issues arise with the production of biomass?

a. High carbon dioxide emissions
c. Deforestation
b. Land degradation
d. All of the above

ANS: D PTS: 1

90.

What is the minimum height of tides required for harnessing tidal energy economically?

a. 1 foot
c. 8 feet
b. 5 feet
d. 10 feet

ANS: D PTS: 1

91.

Tidal barrage is similar to _____

a. wind plant
c. wind turbines
b. dam
d. coal plant

ANS: B PTS: 1

92.

What is a tidal stream?

a. A river streams
c. A fast-flowing body of water deposited into ocean
b. A fast-flowing body of water due to tides
d. A fast-flowing body of water due to winds

ANS: B PTS: 1

93. Which device uses the float which has two motions?

a. High level reservoir wave machine
b. Dolphin type wave generator
c. Hydraulic accumulator
d. Float wave power conversion device

ANS: B PTS: 1

94. In which wave machine instead of compressing air, the water itself is pressurized?

a. High level reservoir wave machine
b. Dolphin type wave generator
c. Hydraulic accumulator
d. Float wave power conversion device

ANS: C PTS: 1

95. In dry steam hydrothermal plant, we use

a. Carnot cycle
b. Brayton cycle
c. Rankine Cycle
d. None of the above

ANS: C PTS: 1

96. How many basins does a single pool tidal system have?

a. 1
b. 2
c. 3
d. 4

ANS: A PTS: 1

97. How much energy is estimated as total tidal power that is generated throughout the world?

a. 2.4 X 106 MW
b. 8.3 X 106 MW
c. 4.9 X 106 MW
d. 12 X 106 MW

ANS: A PTS: 1

98. How many high peaks occur in a single pool tidal system?

a. 1
b. 2
c. 3
d. 4

ANS: B PTS: 1

99. What happens if the turbine generators are smaller and operate much longer?

a. Resulting work is reduced
b. High power generation
c. Less power loss
d. Less sound is created

ANS: A PTS: 1

100. On what is two-pool tidal system is less dependent?

a. Barrage
c. Reservoir

b. Tidal fluctuation
d. Gravitational force

ANS: B PTS: 1

101. How much must be the tidal range over barrage to be feasible?
a. 7 meters
c. 10 meters

b. 25 meters
d. 20 meters

ANS: A PTS: 1

102. Any location where the fresh water meets salty water is called _____
a. Dredging
c. Delta

b. River
d. Estuary

ANS: D PTS: 1

103. What tide of tide is it called when two high tides and two low tides of approximately equal size occur?
a. Diurnal tide
c. Neap tide

b. Spring tide
d. Semi-Diurnal tide

ANS: D PTS: 1

104. Difference between water height at high tide and water height at low tide is called _____
a. Tidal Variation
c. Tidal Range

b. Tidal volume
d. Tidal Current

ANS: C PTS: 1

105. What is the movement of water generated by or associated with the change in mean sea level called?
a. Tidal Variation
c. Tidal Range

b. Tidal volume
d. Tidal Current

ANS: D PTS: 1

106. What is the movement of water away from the shore called?
a. Flood tide
c. Ebb tide

b. Spring tide
d. Neap tide

ANS: C PTS: 1

107. What is the term used for transport of non-cohesive sediments?

a. Dirt drop
c. Littoral drift
b. Flick
d. Droplet drift

ANS: C PTS: 1

108. What is ocean thermal energy conversion?
a. Harnessing the temperature differences between surface waters and deep ocean waters
c. Harnessing the heat energy from the underwater volcanoes
b. Harnessing the temperature differences between the coastal waters and deep ocean waters
d. Harnessing the heat energy between surface water vapour and atmospheric gases

ANS: A PTS: 1

109. What is the temperature difference used in ocean thermal energy conversion? Note that F denotes Fahrenheit
a. 10 degree F
c. Between 50 and 60 degree F
b. A minimum of 77 degree F
d. A minimum of 100 degree F

ANS: B PTS: 1

110. What is thermohaline circulation?
a. Circulation of halogens throughout the ocean
c. Large scale ocean circulation driven by global density gradients
b. Circulation of halogens due to temperature differences throughout the ocean
d. Large scale halogens circulation due to global density gradients

ANS: C PTS: 1

111. What is the maximum estimated potential of ocean thermal energy conversion per year?
a. 80 GWh
c. 10000 TWh
b. 900 MWh
d. 88000 TWh

ANS: D PTS: 1

112. How does the cold and denser water masses sink to the depths of ocean?
a. Thermohaline circulation
c. Density gradient
b. Temperature gradient
d. Freshwater fluxes

ANS: A PTS: 1

113. Why is ocean thermal energy conversion a renewable resource?
a. Because the temperature gradient lasts for a short period of time
c. Because ocean water is available in plenty

b. Because the upwelling of cold water from the deep ocean is replaced by downwelling of surface waters
d. Because of sun's heat

ANS: B PTS: 1

114. Which of the following are types of systems used in ocean thermal energy conversion?
a. Horizontal and vertical
c. Open cycle and closed cycle
b. Vertical and open cycle
d. Horizontal and closed cycle

ANS: C PTS: 1

115. Which of the following is used as working fluid in closed cycle oceanic thermal energy conversion systems?
a. Thermohaline circulation
c. Greenhouse gases
b. Temperature gradient
d. Refrigerants

ANS: D PTS: 1

116. Which of the followling cycle is the most commonly used heat cycle for ocean thermal energy conversion.
a. Rankine cycle
c. Carnot cycle
b. Bryton Cycle
d. Atkinson cycle

ANS: A PTS: 1

117. _____ turbine is used in closed cycle ocean thermal energy conversion.
a. Horizontal
c. High-pressure
b. Low-pressure
d. Vertical

ANS: B PTS: 1

118. Open cycle ocean thermal energy conversion systems use _____ as the working fluid.
a. vapour from rivers
c. vapour from seawater
b. water from rivers
d. seawater

ANS: C PTS: 1

119. What is the byproduct of an ocean thermal energy conversion system?
a. Electricity
c. Water vapour
b. Clean water
d. Cold water

ANS: D PTS: 1

120. Where is the world's only operating ocean thermal energy conversion plant located?

a. Japan
c. China
b. United States
d. Korea

ANS: A PTS: 1

121. Which of the following best describes the working of an ocean thermal energy conversion plant?

a. Oceanic water ? evaporator ? turbine/generator ? electricity
c. Cold surface oceanic water ? electricity ? evaporator containing working fluid ? turbine/generator
b. Warm surface oceanic water ? evaporator containing working fluid ? turbine/generator ? electricity
d. Cold deep oceanic water ? electricity ? evaporator containing working fluid ? turbine/generator

ANS: B PTS: 1

122. Which of the following is the correct equation for the electrical power generated by the hydroelectric power plant?

a. 75×0.736 wQH? Watt
c. 0.845 ×wQH? Watt
b. (7.5/0.736) × wQH? Watt
d. 9.81 ×wQH?

ANS: C PTS: 1

123. Which of the following is not a requirement for site selection of hydroelectric power plant?

a. Availability of water
c. Rocky land
b. Large catchment area
d. Sedimentation

ANS: D PTS: 1

124. The amount of electrical energy that can be generated by a hydroelectric power plant depends upon _____

a. Head of water
c. Specific weight of water
b. Quantity of water
d. Efficiency of Alternator

ANS: B PTS: 1

125. Hydroelectric power plant is _____

a. Non-renewable source of energy
c. Non-conventional source of energy
b. Conventional source of energy
d. Continuous source of energy

ANS: B PTS: 1

126. Hydroelectric power plant is mainly located in _____

a. Flat areas
c. Deserts

b. Flat areas
d. Hilly areas

ANS: C PTS: 1

127. Which statement about hydroelectric power plant is wrong?
a. Efficiency of hydroelectric power plant does not reduce with age
c. It is very neat and clean plant because no smoke or ash is produced.
b. Its construction coast is very high and takes a long time for erection.
d. Meeting rapidly changing load demands is not possible in hydroelectric power plant.

ANS: D PTS: 1

128. Which of the following is not an advantage of hydroelectric power plant?
a. no fuel requirement
c. continuous power source
b. low running cost
d. no standby losses

ANS: C PTS: 1

129. Which of the following statement is true about hydroelectric power plant?
a. Hydroelectric power plants are multipurpose
c. Hydroelectric power plant has high running cost
b. Due to non-uniform flow of water frequency control in such plants is very difficult.
d. Water is used as fuel in hydroelectric power plant

ANS: A PTS: 1

130. Kinetic energy that results from the oscillation of water is called _____
a. Wave energy
c. Ocean thermal energy
b. Tidal energy
d. Hydro energy

ANS: A PTS: 1

131. How is height of wave determined?
a. By wind speed
c. By a immersion scale
b. By force of wave
d. By a floating device

ANS: A PTS: 1

132. What does oscillatory motion at ocean produce?
a. Microseisms
c. Disturbance of currents
b. Froth
d. Currents

ANS: A PTS: 1

133. Waves are caused indirectly by _____
a. Wind energy
c. Geo-thermal energy
b. Solar energy
d. Wave energy

ANS: B PTS: 1

134. What are used to reduce to reduce the motion of floats?
a. Back pressure
c. Damping fins
b. Tubes
d. Anchor

ANS: C PTS: 1

135. From what material is the float (platform) made of _____
a. Molded plastic
c. Stainless steel
b. Thermocole
d. Tubes

ANS: A PTS: 1

136. A _____ attached to the float moves up and down inside a cylinder.
a. chain
c. piston
b. barrel
d. load

ANS: C PTS: 1

137. What type of energy is wave energy?
a. Non – conventional
c. Non – renewable
b. Commercial
d. Exhaustible

ANS: A PTS: 1

138. What is major disadvantage of wave energy?
a. It is not efficient enough
c. The harnessing cost is more
b. It is available only in ocean
d. Unstable during high wind pressures

ANS: B PTS: 1

139. Motion of water in a wave is primarily _____
a. Vertical
c. Linear
b. Horizontal
d. Opposite

ANS: A PTS: 1

140. How many number of manifolds are part of a platform of floating device?
a. 1
b. 2
c. 3
d. 4

ANS: D PTS: 1

141. Which device uses the float which has two motions?
a. High level reservoir wave machine
b. Dolphin type wave generator
c. Hydraulic accumulator
d. Float wave power conversion device

ANS: B PTS: 1

142. Fuel cell converts chemical energy to electrical energy using a reaction that _____
a. eliminates combustion of fuel
b. requires combustion of fuel
c. requires no ignition of fuel
d. uel is not required

ANS: A PTS: 1

143. Fuel cell performance is not limited by _____
a. First law of Thermodynamics
b. Second law of Thermodynamics
c. Third law of Thermodynamics
d. All three laws are applicable

ANS: B PTS: 1

144. For which of these devices does negative charge carriers flow from anode to cathode in the external circuit?
a. MHD generator
b. Thermionic generator
c. Thermoelectric generator
d. Fuel cell

ANS: D PTS: 1

145. The fuel cell is considered a battery in which _____ is continuously replaced.
a. fuel only
b. oxidizer
c. both fuel and oxidizer
d. none of the mentioned

ANS: C PTS: 1

146. The type of reactions in a fuel cell is not determined by _____
a. fuel and oxidizer combination
b. composition of electrolyte
c. materials of anode and cathode
d. catalytic effects of reaction container

ANS: D PTS: 1

147. What is the voltage output of hydrogen-oxygen fuel cell?(in V)
a. -1.23
c. -1.01
b. -1.45
d. -.93

ANS: A PTS: 1

148. What is the voltage output of carbon-oxygen fuel cell?(in V)
a. -.91
c. -1.02
b. -1.24
d. -1.17

ANS: C PTS: 1

149. Which of these gases or liquids are not used as source of hydrogen in fuel cells?
a. C2H6
c. C6H6
b. C2H2
d. C2H5OH

ANS: D PTS: 1

150. The hydrocarbons cracked with steam in fuel cells do not give rise to _____
a. CO
c. H2
b. CO2
d. H2O

ANS: D PTS: 1