

11th Geography Lesson 3 Questions in English**3] Hydrosphere**

1. Consider the following statements, find the correct answer
- a) Over 95% of the world's supply of fresh water is in Antarctica.
 - b) 80% of the world population lives in the driest part of the planet
- A) a) only
B) b) only
C) Both a) and b)
D) Neither a) nor b)

Explanation

Over 90% of the world's supply of fresh water is in Antarctica. 85% of the world population lives in the driest part of the planet.

2. _____% of human brain is water
- A) 60%
B) 70%
C) 65%
D) 75%

Explanation

"World cannot survive without water and morality cannot exist without rain". As Thirukkural quotes, water is the most important resource in the world 70% of human brain is water.

3. The hydrosphere includes which of the following
- 1. Water on the surface of the earth,
 - 2. Ground water
 - 3. Water in the atmosphere
- A) 1, 2
B) 2, 3
C) 1, 3
D) 1, 2, 3

Explanation

The hydrosphere includes the water on the surface of the earth, the water below the surface called ground water and the water in the atmosphere above earth's surface. Oceans, rivers, lakes and glaciers form part of surface water.

4. Consider the following statements find the correct answer

- A) The atmosphere has water in all the four forms.
- B) The total amount of water on the earth does change over time.
- C) **Water is constantly in motion within the spheres of the earth.**
- D) The earth's hydrosphere acts as an open system.

Explanation

The atmosphere has water in all the three forms. The total amount of water on the earth does not change over time. Water is constantly in motion within the spheres of the earth which is being transformed and reused all over the earth. The earth's hydrosphere, thus acts as a closed system.

5. _____% of water is salty found in seas and oceans.

- A) **96.5**
- B) 94.5
- C) 97.5
- D) 95.5

Explanation

Earth is covered by land and water. About 70.8% of its area is covered by water and 29.2% of its area by land. About 96.5% of water is salty found in seas and oceans.

6. Find the incorrect statements

- 1. 70.8% area of earth (261million square km) is covered by water.
 - 2. 29.2% area of earth (148 million square km) is covered by land
- A) 1 only
 - B) 2 only
 - C) **Both 1 & 2**
 - D) Neither 1 nor 2

Explanation

Earth is covered by land and water. About 70.8% of its area (361million square km) is covered by water and 29.2% (148 million square km) of its area by land. About 96.5% of water is salty found in seas and oceans.

7. Find out the correct statement

- 1. Fresh water occupies only 2.5% of the earth
 - 2. Saline ground water and saline lakes together form 2% of the earth
- A) **1 only**
 - B) 2 only
 - C) Both 1 & 2

D) Neither 1 nor 2

Explanation

Fresh water occupies only 2.5% of the earth. Saline ground water and saline lakes together form 1% of the earth

8. Fresh water have the salinity of less than_____%

- A) 1
- B) 1.2
- C) 2
- D) 1.5

Explanation

Fresh water is defined as water with a salinity of less than 1% compared to that of the oceans (i.e. below 0.35%).

9. Salinity of marginal water is?

- A) 0.3 – 1
- B) 0.35 – 1.5
- C) 0.35 – 1
- D) 0.3 – 1.8

Explanation

Water with salinity between 0.35‰ and 1‰ is typically referred to as marginal water because it is marginal for many uses by humans and animals.

10. Find out the correct statement about fresh water

- A) 68.6% of fresh water is locked in Glaciers and icecaps.
- B) 30.1% is stored as ground water
- C) Remaining 1% is available as surface water
- D) A and B

Explanation

Considering the distribution of fresh water 68.6% of it is locked in Glaciers and icecaps. About 30.1% is stored as ground water and the remaining 1.5% is available as surface water. Surface water includes ice and snow on the land and sea, water in the lakes, rivers, swamps and marshes, moisture in soil, atmosphere and biosphere. Rivers and lakes are the major sources of fresh water around the world, and are vital to the communities they serve.

11. Find out the incorrect statement

1. River Ganga has its source from Gangotri glacier in the Himalayas.
 2. River Cauvery has its source from in Talacauvery located in Kodagu district of Karnataka.
- A) 1 only
B) 2 only
C) Both 1 & 2
D) **Neither 1 nor 2**

Explanation

Rivers generally have a source on a mountain either from a glacier, a spring or a lake. River Ganga has its source from Gangotri glacier in the Himalayas. River Cauvery has its source from a spring in Talacauvery located in Kodagu district of Karnataka

12. River Nile has its source from

- A) Uganda
B) Ethiopia
C) Kenya
D) Tanzania

Explanation

River Nile has its source near Lake Victoria in Uganda. The river flows through confined channel between two banks and ends up at the mouth which is either on a sea or lake.

13. What is inland drainage?

- A) When rivers drain their water into a lake
B) When rivers drain their water into an inland sea
C) When rivers drain their water into ocean
D) **Both A and B**

Explanation

When rivers drain their water into a lake or an inland sea, it is said to be an inland drainage.

14. Match the following

River	Place
a) Nile	- 1. South America
b) Amazon	- 2. Nile
c) Yangtze	- 3. USA
d) Mississippi	- 4. Asia

- A) **2, 1, 4, 3**
B) 1, 2, 4, 3

- C) 2, 1, 3, 4
- D) 1, 2, 3, 4

15. Which is the longest river in the world

- A) **Nile**
- B) Amazon
- C) Sind
- D) Yangtze

Explanation

The Nile River in Africa is the longest river in the world. The Nile River flows through Egypt, Uganda, Ethiopia, Kenya, Tanzania, Democratic Republic of the Congo, Rwanda, Burundi, Sudan and Eritrea drains and into the Mediterranean Sea forming a delta to the north of Cairo city.

16. River amazon drains into?

- A) Pacific ocean
- B) Arctic ocean
- C) **Atlantic ocean**
- D) Southern ocean

Explanation

The river Amazon in South America, is the second longest river, and has the largest drainage basin of any river. The Amazon River flows through Peru, Colombia, and Brazil and drains into the Atlantic Ocean forming an estuarine delta.

17. Find out the correct statement?

- 1. The Yangtze River, which flows in China, is the longest river in Africa,
 - 2. Yangtze is the fourth longest river in the world
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) **Neither 1 nor 2**

Explanation

The Yangtze River, which flows in China, is the longest river in Asia, and the third longest river in the world.

18. Mississippi-Missouri is the _____longest river in the world

- A) Fifth
- B) **Fourth**

- C) Sixth
- D) Second

Explanation

The longest river system in the United States, the Mississippi-Missouri system is considered the fourth longest river in the world.

19. Find out the correct statement

- A) 263 rivers either cross or demarcate international political boundaries**
- B) The total volume of water in rivers in the world is estimated at 2,720 cubic km
- C) Asia excluding Middle East, has the largest run off of 11,300 km³/year
- D) North America with 15,000 cubic km per year.

Explanation

The total volume of water in rivers in the world is estimated at 2,120 cubic km. Asia excluding Middle East, has the largest run off of 13,300 cubic km/year followed by North America with 12,000 cubic km per year.

20. WRIS stands for

- A) Water Restoration Information System
- B) Water Resources Information System**
- C) Water Resources Indian System
- D) Waste Resources Information System

Explanation

A nationwide water resources information system, "Generation of Database and Implementation of Web Enabled Water Resources Information System (India-WRIS) in the country" contain all aspects of water resources and related data provide data and information in public domain through India-WRIS Web GIS portal.

21. 1 TMC = _____

- A) 1000 million cubic feet**
- B) 1000 billion cubic feet
- C) 100 million cubic feet
- D) 100 billion cubic feet

Explanation

TMC feet, is the abbreviation for one thousand million cubic feet (1,000,000,000 = 1 billion), commonly used in India with reference to volume of water in a reservoir or river flow.

22. _____ is the deepest freshwater lake in the world

- A) Caspian Sea
- B) Lake Baikal**
- C) Wular Lake
- D) Victoria lake

Explanation

Lakes are larger bodies of water with outlet through a river or stream. Lakes may have their origin through tectonic activity, volcanic activity, river, glacier and wave action or sometimes meteoric origin

23. _____ is the largest salt water lake in the world.

- A) Caspian Sea**
- B) Lake Baikal
- C) Wular Lake
- D) Victoria lake

24. Which of the following lakes have been formed by earth movements.

- 1. Caspian Sea
 - 2. Lake Baikal
 - 3. Wular Lake
 - 4. Victoria lake
- A) 1, 2, 3, 4
 - B) 1, 3, 4
 - C) 1, 2, 3**
 - D) 1, 2, 4

Explanation

Lakes are larger bodies of water with outlet through a river or stream. Lakes may have their origin through tectonic activity, volcanic activity, river, glacier and wave action or sometimes meteoric origin. Caspian Sea, Lake Baikal and Wular Lake have been formed by earth movements

25. Which of the following is incorrectly matched pair

- 1. Lagoon lake - formed by wave deposition
 - 2. Chilika lake - largest lagoon in India
 - 3. Lonar lake - located in Maharashtra
- A) 1, 2
 - B) 1, 2, 3
 - C) 1, 3
 - D) None of the above**

Explanation

Lagoon Lake is formed by wave deposition. Chilika Lake is largest lagoon lake in India. Lonar lake in Maharashtra is believed to be formed by depression created by meteor impact which hit during Pleistocene Epoch.

26. Match the following

- | | |
|-----------------|------------------|
| a) Lake Toba | - 1. Odisha |
| b) Chilika Lake | - 2. Sumatra |
| c) Lunar Lake | - 3. Maharashtra |
| d) Sambar Lake | - 4. Rajasthan |

A) 2, 1, 4, 3

B) 2, 1, 3, 4

C) 1, 2, 3, 4

D) 1, 2, 4, 3

Explanation

Lake Toba on the island of Sumatra is the largest resurgent caldera on earth. Sambar Lake in Rajasthan is the largest salt water lake in India.

27. Which is known as the land of thousand lakes?

- A) England
- B) Netherland
- C) **Finland**
- D) Switzerland

28. Consider the following statements about wetlands, find the correct one.

- 1. Wetlands are areas of marshy, fen, peat lands
 - 2. These waters are static or flowing
- A) 1 only
 - B) 2 only
 - C) **Both 1 & 2**
 - D) Neither 1 nor 2

Explanation

Wetlands are areas of marshy, fen, peat lands or water that is static or flowing, fresh, brackish or salt including areas of marine water the depth of which at low tide does not exceed six meters.

29. Ran of katch is example of_____?

- A) **Salt marsh**
- B) Water swamp

- C) Wetland
- D) Lagoon Lake

30. Find out the correct statement

1. Swamps are shallow wetlands around lake, streams or the oceans where grasses and reeds are common without trees.
 2. Marsh is a wetland with lush trees and vines found in low lying area beside slow moving rivers.
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) **Neither 1 nor 2**

Explanation

Marshes are shallow wetlands around lake, streams or the oceans where grasses and reeds are common without trees. Swamp is a wetland with lush trees and vines found in low lying area beside slow moving rivers.

31. Which of the following is a fresh water swamp?

- A) Sundarbans
- B) **Pallikaranai**
- C) Pichavaram
- D) Lagoon

Explanation

Pallikaranai is the fresh water swamp adjacent to the Bay of Bengal situated in southern part of Chennai.

32. The permeable rocks that can hold water and allow water to flow through are called?

- A) Water table
- B) Ground water
- C) Surface water
- D) **Aquifers**

33. Consider the following statements, find the correct one?

1. The upper part of the saturated zone of aquifers is called ground water.
 2. The level of water table does not fluctuate according to seasons.
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) **Neither 1 nor 2**

Explanation

The upper part of the saturated zone of aquifers is called water table. The level of water table fluctuates according to seasons.

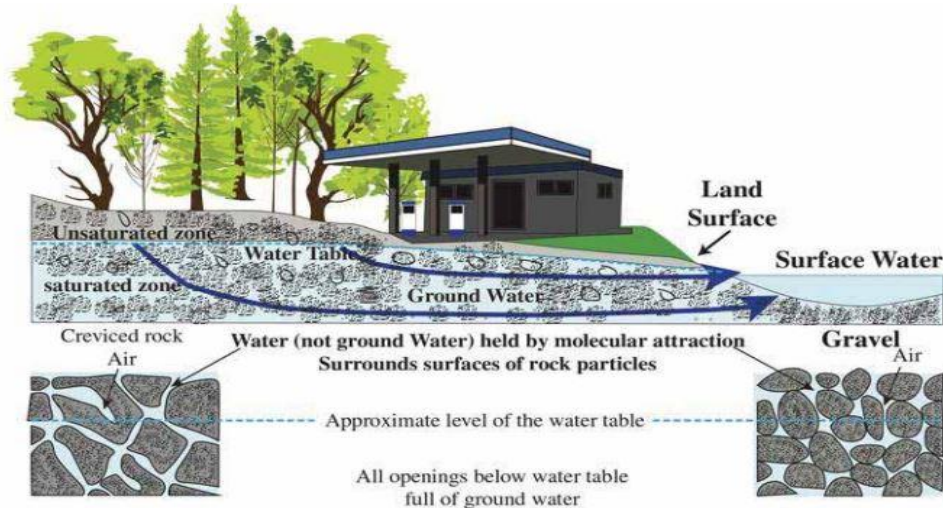


Figure 5.1 Ground water

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34. What is known as Saltwater intrusion

- A) If excessive water is taken from the ground water along the coast, the sea water enters the coastal aquifer
- B) If excessive water is taken from the land surface along the coast, the sea water enters the coastal aquifer
- C) If excessive water is taken from the water table along the coast, the sea water enters the coastal aquifer
- D) If excessive water is taken from the aquifers along the coast, then the sea water enters the coastal aquifer

35. Which controls the energy budget of the earth?

- A) Troposphere
- B) **Cryosphere**
- C) Ozonosphere
- D) Stratosphere

Explanation

Earth's climate is highly influenced by the extent of cryosphere as it controls the energy budget of the earth

36. Find the incorrect statements

1. Cryosphere includes the water in liquid state.

2. Glaciers, ice sheets, ice caps, lake and river ice does not included in cryosphere

- A) 1 only
- B) 2 only
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

Cryosphere includes the water in frozen state. Glaciers, ice sheets, ice caps, lake and river ice, permafrost, seasonal snow and ice crystals in the atmosphere together form cryosphere. Earth's climate is highly influenced by the extent of cryosphere as it controls the energy budget of the earth

37. Perennial ice cover is found in?

- 1. Greenland
 - 2. Antarctica
 - 3. Finland
 - 4. Alpine
- A) 1, 2, 3
 - B) 1, 2, 3, 4
 - C) 1, 2, 4
 - D) 1, 3, 4

Explanation

Perennial ice cover is found in Greenland and Antarctica as ice sheets, as mountain glaciers and as permafrost in higher latitudes.

38. Find out the incorrect statement

- 1. Permafrost is the condition prevailing when water freezes above and below the ground for more than two consecutive years.
 - 2. Most permafrost regions are located in low latitudes
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

Permafrost is the condition prevailing when water freezes above and below the ground, (including rock or soil) for more than two consecutive years. Most permafrost regions are located in high latitudes, but alpine permafrost may exist at high mountains in much lower latitudes.

39. Find out the correct statement

- A) Mount Kilimanjaro is located in Tanzania, Africa.
- B) Kilimanjaro is located closer to the tropic of cancer has permafrost.
- C) A and D
- D) Height of Kilimanjaro is 5895 m

Explanation

Mount Kilimanjaro (5895m) in Tanzania, Africa, located closer to the equator has permafrost.

40. Seasonal snow and ice crystals are confined to

- 1. Middle latitudes
 - 2. Low mountains in higher latitudes
 - 3. High mountains in lower latitude
 - 4. Low mountains in lower latitudes
- A) 1, 2
 - B) 1, 3
 - C) 2, 4
 - D) 3, 4

Explanation

Seasonal snow and ice crystals are confined to middle latitudes and high mountains in lower latitude

41. Find out the correct statements

- 1. Sea ice is floating ocean water
 - 2. Formation of sea ice, growth and melting are all confined to the ocean.
 - 3. An ice shelf is a thick, floating slab of ice
- A) 1, 2,
 - B) 2, 3
 - C) All the above
 - D) None of the above

Explanation

Seasonal snow and ice crystals are confined to middle latitudes and high mountains in lower latitude. Sea ice is frozen ocean water. Its formation, growth and melting are all confined to the ocean. An ice shelf is a thick, floating slab of ice that forms where a glacier or ice flows down a coastline

42. Find out the correct pairs

- 1. Ross Ice Shelf - Arctic

- 2. Filchner-Ronne ice shelf - Antarctica.
- 3. Iceberg - Ice floating in open water
- A) 1 only
- B) 2, 3 only**
- C) 3 only
- D) All the above

Explanation

The world's largest ice shelves are the Ross Ice Shelf and the Filchner-Ronne ice shelf in Antarctica. An iceberg is ice floating in open water that has broken off from glaciers or ice shelf.

43. Find out the incorrect statement

- 1. Cryosphere is water indicator.
- 2. Cryosphere with its low albedo influences the energy balance of the whole planet.
- 3. Changes in cryosphere will alter land cover, surface temperature, soil moisture etc.
- 4. There is a complex interaction and balance among the spheres of the earth which makes life to flourish in the earth.
- A) 3, 4
- B) 2, 3
- C) 1, 2**
- D) 1, 4

Explanation

Cryosphere is a climate indicator. Cryosphere with its high albedo influences the energy balance of the whole planet. Changes in cryosphere will alter land cover, surface temperature, soil moisture, air temperature, radiation, air circulation, clouds, precipitation, sea level, sea surface temperature, salinity, ocean current, fauna, flora and microbes. There is a complex interaction and balance among the spheres of the earth which makes life to flourish in the earth. If there is a change in one sphere it affects the other spheres as well. Nature maintains this balance.

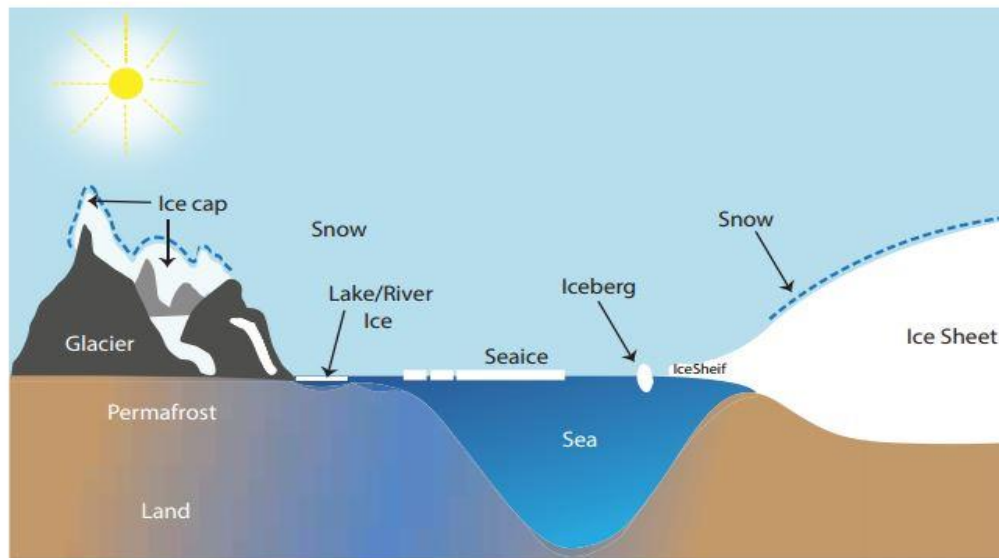


Figure 5.2 Cryosphere

44. Carbon is removed from the atmospheric cycle by_____?

- A) Atmosphere
- B) Troposphere
- C) **Cryosphere**
- D) Ionosphere

Explanation

Carbon is removed from the atmospheric cycle by cryosphere during the formation of ice and is released when the ice melts.

45. Find the correct statement

1. The water in the oceans and seas is termed as marine water.
 2. Continuous water body that surrounds the continents, created by earth's internal force is known as sea
- A) **1 only**
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

The water in the oceans and seas is termed as marine water. Continuous water body that surrounds the continents, created by earth's internal force is known as Ocean

46. Find the correct statement

1. The term ocean takes its origin from the Latin word 'Oceonus'.

2. Meaning of Oceonus is enormous river encircling the earth.

- A) 1
- B) 2**
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

The term ocean takes its origin from the Greek word 'Oceonus' meaning enormous river encircling the earth.

47. The area of the World Ocean is ____ million square kilometer?

- A) 261 million
- B) 361 million**
- C) 471 million
- D) 251 million

Explanation

The area of the World Ocean is 361 million square kilometer. The earth has at present five major oceans The Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean, and the Southern ocean

48. Find the correct statements

- 1. All the five oceans are interconnected to form one Global Ocean or World Ocean
 - 2. Mean Sea Level (MSL) is the average height of the surface of the sea for all stages of the wave.
 - 3. MSL is reference point to measure the height of land features and length of the sea features.
- A) 1, 2
 - B) 1 only**
 - C) 2, 3 only
 - D) 1, 2, 3

Explanation

Mean Sea Level (MSL) is the average height of the surface of the sea for all stages of the tide. MSL is reference point to measure the height of land features and depth of the sea features.

49. Match the following

- a) Marginal Sea - 1. Body of saline water enclosed by land.
- b) Sea - 2. Partially enclosed by islands
- c) Cryosphere - 3. Water in frozen state.

- A) 2, 1, 3**
- B) 1, 2, 3

- C) 3, 2, 1
- D) 2, 3, 1

Explanation

Sea is a body of saline water (generally a division of the world ocean) partly or fully enclosed by land. Marginal sea is a sea partially enclosed by islands, archipelagos, or peninsulas and extension of oceans towards land. They are generally shallow.

50. Which of the following will not come under marginal sea

- 1. Andaman Sea
- 2. Arabian Sea
- 3. Bay of Bengal
- 4. Java Sea

- A) 1, 2, 3
- B) 1, 2, 4
- C) All the above
- D) **None of the above**

Explanation

Marginal sea is a sea partially enclosed by islands, archipelagos, or peninsulas and extension of oceans towards land. They are generally shallow. Andaman Sea, Arabian Sea, Bay of Bengal, Java Sea, Persian Gulf and Red Sea are marginal seas of the Indian Ocean.

51. _____ is a water body surrounded on three sides by land and the fourth side wide open towards an ocean

- A) Strait
- B) **Bay**
- C) Gulf
- D) Cave

Explanation

Bay is a water body surrounded on three sides by land and the fourth side (mouth) wide open towards an ocean.

52. Find out the incorrect statement

- 1. Creek is a large body of water, with a narrow mouth, that is almost completely surrounded by land.
 - 2. The world's second largest gulf is the Gulf of Mexico
- A) 1 only
 - B) 2 only

- C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Gulf is a large body of water, with a narrow mouth, that is almost completely surrounded by land. The world's largest gulf is the Gulf of Mexico.

53. Which of the following are some types of bays?

1. Sound
 2. Creek
 3. Bight
 4. Cove
- A) 1, 2, 3
B) 2, 3, 4
C) 3, 4, 2
D) 4, 3, 2, 1

Explanation

Bay is a water body surrounded on three sides by land and the fourth side (mouth) wide open towards an ocean. Sound, creek, bight and cove are bays which vary in size and depth.

54. Find the correct answer

1. Strait is a broad channel of water, connecting two larger bodies of water.
 2. Palk Strait connects Gulf of Mannar and Bay of Bengal
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Strait is a narrow channel of water, connecting two larger bodies of water. Palk Strait connects Gulf of Mannar and Bay of Bengal

55. Isthmus of Suez connects

- A) Asia and America
- B) Africa and Australia
- C) Australia and Asia
- D) Asia and Africa

Explanation

Isthmus is a narrow strip of land connecting two larger land masses. Isthmus of Suez connects Africa and Asia.

56. Which is the best example for enclosed sea?

- A) South china sea
- B) Red sea
- C) Caspian sea
- D) **Mediterranean Sea**

Explanation

Enclosed seas are seas that reach very deep into the continent stay connected with one or the other ocean of the world through straits. Mediterranean Sea is the best example for enclosed sea

57. Find out the correct statement

- A) Partly Enclosed Seas are connected to the oceans by a very wide opening
- B) A series of islands may also occur between a partly enclosed sea and the ocean to which it is connected.
- C) Caspian Sea is a perfect example.
- D) A and B

Explanation

Partly Enclosed Seas are those types of seas that are connected to the oceans by a very wide opening and have similar characters of the adjacent ocean. A series of islands may also occur between a partly enclosed sea and the ocean to which it is connected. Caribbean Sea is a perfect example.

58. Find out the incorrect statements

- 1. Landlocked Seas are completely surrounded by landmass on all sides with natural outlet.
 - 2. They are actually hyper saline lakes.
 - 3. Red Sea and Caspian Sea are good examples of landlocked seas.
- A) 2 only
 - B) 1, 2 only
 - C) **1, 3 only**
 - D) None of the above

Explanation

Landlocked Seas are completely surrounded by landmass on all sides without any natural outlet. They are actually hyper saline lakes. Dead Sea and Caspian Sea are good examples of landlocked seas.

59. Jordon River flow into_____?

- A) Dead sea and Caspian sea**
B) Caspian and red sea
C) Red sea and dead sea
D) South china sea and dead sea

Explanation

Jordon River and Volga River flow into Dead Sea and Caspian Sea respectively.

60. Find out incorrect statement

1. Fjord is a long indented bay with steep slope.
 2. Fjord has been created by the submergence of U shaped glacial valley.
 3. Example: sogne Fjord in Norway (203 km).
- A) 1, 2
B) 2, 3
C) All the above
D) None of the above

Explanation

Fjord is a long indented bay with steep slope that has been created by the submergence of U shaped glacial valley. Example: sogne Fjord in Norway (203 km).

61. George River in Sydney is the best example for_____?

- A) Creek
B) Ria
C) Fjords
D) Cove

Explanation

Ria is an indented bay with gradual slope formed by the submergence of V shaped river valley. George River in Sydney is the best example for Ria

62. The life cycle of ocean is?

- A) Wilson cycle**
B) Golden cycle
C) Water cycle
D) William cycle

63. Match the following

- a) Southern Ocean - 1. 6%
b) Arctic Ocean - 2. 4%

- c) Pacific Ocean - 3. 46%
- d) Atlantic Ocean - 4. 24%
- e) Indian Ocean - 5. 20%

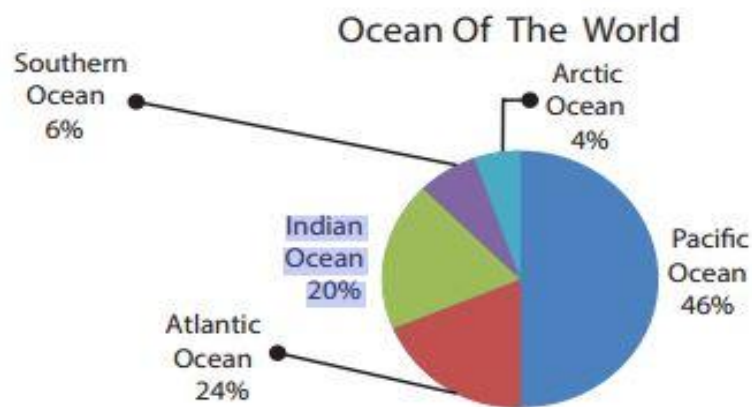
A) 2, 1, 3, 4, 5

B) 1, 2, 3, 4, 5

C) 1, 2, 3, 5, 4

D) 2, 1, 5, 4, 3

Explanation



64. Find out the correct statement about Suez canal

1. The Suez Canal, an artificial sea level waterway in Uganda
2. It connects the Mediterranean Sea to the Dead Sea through the Isthmus of Suez.
3. Officially opened on November 17, 1969

A) 1, 3

B) 1, 2

C) All the above

D) None of the above

Explanation

The Suez Canal, an artificial sea level waterway in Egypt, connecting the Mediterranean Sea to the Red Sea through the Isthmus of Suez was officially opened on November 17, 1869.

65. Find out the incorrect statement

- A) Pacific Ocean is the largest ocean in the world.
- B) It is bigger than all continents put together.
- C) Explorer Ferdinand Magellan named the ocean Pacific Ocean
- D) Average depth of this ocean is 5,280 meters.**

Explanation

Average depth of this ocean is 4,280 meters.

66. Find the correct statement

1. Portuguese explorer Ferdinand Magellan in 1621 named the ocean Pacific Ocean.
 2. Its meaning 'peaceful'
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Portuguese explorer Ferdinand Magellan in 1521 named the ocean Pacific Ocean meaning 'peaceful'

67. Magellan named pacific ocean after comparing it with

- A) Atlantic ocean
B) Indian ocean
C) Pacific ocean
D) Arctic ocean

Explanation

Portuguese explorer Ferdinand Magellan in 1521 named the ocean Pacific Ocean meaning 'peaceful' because he felt the ocean to be calm after sailing from the Atlantic Ocean through the stormy and dangerous Strait of Magellan.

68. Find out the correct statement

1. The South Atlantic Ocean was formed by the break-up of the supercontinent Pangaea.
 2. The North Atlantic was formed when the Gondwana land broke in the geological past.
- A) 1 only
B) 2 only
C) Both 1 and 2
D) Neither 1 nor 2

Explanation

The North Atlantic Ocean was formed by the break-up of the supercontinent Pangaea and the south Atlantic was formed when the Gondwana land broke in the geological past.

69. It is the second largest ocean of the world and the name refers to Atlas of Greek mythology?

- A) Indian ocean
B) Pacific ocean

- C) Atlantic ocean
- D) Southern ocean

Explanation

Atlantic Ocean is the second largest ocean of the world. The Atlantic Ocean's name refers to Atlas of Greek mythology.

70. Consider the following statements about Indian ocean, find the incorrect one

1. It is the third largest ocean in the world
 2. It is the only ocean named after the country
 3. Its calm open water has encouraged the sea trade earlier than Southern or Pacific Ocean
- A) 1 only
 - B) 2 only
 - C) **3 only**
 - D) None of the above

Explanation

Its calm open water has encouraged the sea trade earlier than Atlantic or Pacific Ocean

71. Find the incorrect statement about southern ocean

- A) It is the fourth largest ocean in the world
- B) **It is the youngest ocean formed 10 million years ago**
- C) During summer in southern hemisphere half of the southern ocean is covered with ice and icebergs
- D) It has a boundary where cold northward flowing water from the Antarctic mixes with warmer sub Antarctic water

Explanation

It is the youngest ocean formed 30 million years ago.

72. The southern ocean is formed 30 million years ago when South America is moved away from ___?

- A) Australia
- B) North America
- C) **Antarctica**
- D) Asia

Explanation

The southern ocean is formed 30 million years ago when South America is moved away from opening the Drake Passage

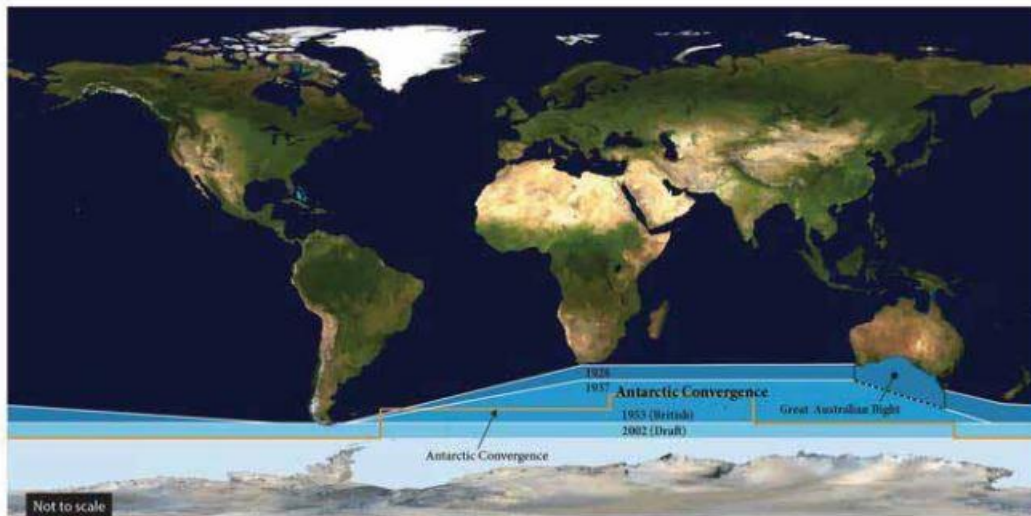


Figure 5.4 Extension of Southern Ocean

73. Whose salinity is lower than the average of major five oceans?

- A) Arctic ocean
- B) Pacific ocean
- C) Atlantic ocean
- D) Southern ocean

74. Find out the incorrect statement

1. Bering Strait connects Arctic Ocean with Atlantic Ocean
 2. Labrador Sea and Greenland Sea connects the Arctic Ocean with Pacific Ocean
- A) 1 only
 - B) 2 only
 - C) Both 1 and 2
 - D) Neither 1 nor 2

Explanation

Bering Strait connects Arctic Ocean with Pacific Ocean. Labrador Sea and Greenland Sea connects the Arctic Ocean with Atlantic Ocean

75. Consider the following statements about arctic ocean find the correct answer

1. The deepest point is Litke deep
 2. It is located in Eurasian basin
 3. Height of this deep is 5550 m
- A) 1, 3
 - B) 1, 2
 - C) 1, 2, 3
 - D) 2, 3

Explanation

The deepest point is litke deep in, Eurasian basin at 5450 m

76. Find the incorrect statement about arctic ocean

- A) Arctic Ocean is shallower and smaller than other four oceans
- B) It is completely surrounded by Eurasia and South America**
- C) It is covered by ice completely in winter
- D) The salinity and surface temperature of Arctic Ocean is vary seasonally as the ice cover melts and freezes alternatively

Explanation

It is completely surrounded by Eurasia and North America.

77. IHO stands for

- A) International Hydraulic Organization
- B) International Hydrosphere Organization
- C) Indian Hygroscopic Organization
- D) International Hygroscopic Organization**

78. Find out the correct statement about IHO

- 1. It is the intergovernmental organization
 - 2. It surveys and produces charts for world seas, oceans and navigable waters
- A) 1 only
 - B) 2 only
 - C) Both 1 and 2**
 - D) Neither 1 nor 2

79. Find out the correct statement

- 1. The high-tide line forms the base line for marking maritime zones.
 - 2. Water landward of the baseline in defined as external waters over which the state has complete sovereignty.
- A) 1 only
 - B) 2 only
 - C) Both 1 and 2
 - D) Neither 1 nor 2**

Explanation

The low-tide line forms the base line for marking maritime zones. Water landward of the baseline in defined as internal waters over which the state has complete sovereignty.

80. Find the incorrect statement

1. A country's territorial sea extends up to 24 nautical miles (22.2 km) from its baseline
 2. The contiguous zone is a zone of water extending from the outer edge of the territorial sea up to 12 nautical miles (44.4 km) from the baseline.
- A) 1 only
B) 2 only
C) **Both 1 and 2**
D) Neither 1 nor 2

Explanation

A country's territorial sea extends up to 12 nautical miles (22.2 km) from its baseline. The contiguous zone is a zone of water extending from the outer edge of the territorial sea up to 24 nautical miles (44.4 km) from the baseline.

81. An Exclusive Economic Zone (EEZ) extends from the base line to a maximum of_____?

- A) **200 nautical miles**
B) 150 nautical miles
C) 300 nautical miles
D) 210 nautical miles

Explanation

An Exclusive Economic Zone (EEZ) extends from the base line to a maximum of 200 nautical miles (370.4 km). A coastal nation has control of all economic resources within its exclusive economic zone, including fishing, mining and oil exploration

82. Find out the incorrect statement

- A) A coastal nation has control of all economic resources within its exclusive economic zone, including fishing, mining and oil exploration.
B) Everything beyond EEZ is called International Waters or the High Seas.
C) **All nation has sovereign rights over this area.**
D) A and B

Explanation

Everything beyond EEZ is called International Waters or the High Seas. No nation has sovereign rights over this area.

83. A nautical mile is _____m is used in navigational charts.

- A) 1552 m
B) 1752 m
C) **1852 m**

D) 1652 m

Explanation

A nautical mile is based on the circumference of the earth, and is equal to one minute of latitude which is equivalent to one sixtieth of a degree of latitude. A nautical mile is a unit of measurement defined as 1,852 m. Nautical miles are used in Navigational charts.

84. INCOIS stands for?

- A) Indian National Centre for Ocean Information System
- B) Inter National Centre for Ocean Information Services
- C) Indian National Council for Ocean Information Services
- D) Indian National Centre for Ocean Information Services**

85. Find the incorrect statements

1. INCOIS with its Marine Satellite Information Services uses the remotely sensed sea surface temperature (SST) to identify the locations of fish aggregation.
 2. The details of the Potential Fishing Zones (PFZ) are then disseminated to the fishermen once in every two days.
- A) 1 only
 - B) 2 only**
 - C) Both 1 and 2
 - D) Neither 1 nor 2

Explanation

Indian National Centre for Ocean Information Services (INCOIS) with its Marine Satellite Information Services uses the remotely sensed sea surface temperature (SST) to identify the locations of fish aggregation. The details of the Potential Fishing Zones (PFZ) are then disseminated to the fishermen once in every three days along the Indian Coast by displaying the details in the Lighthouse in their respective regional language.

86. Consider the following statements find the incorrect one

1. The bottom of the ocean has a variety of landforms just as it is seen on the earth's surface.
 2. There are large mountain ridges, deep depressions, flat plains, basins and volcanoes.
 3. The configuration of a sea is shown with the help of a 'Hypsometric curve'.
 4. It is a graph denoting the proportion of a landmass standing above or below the sea level
- A) 2 only
 - B) 3 only**
 - C) 1 only
 - D) None of the above

Explanation

The configuration of an ocean floor is shown with the help of a 'Hypsometric curve' or 'Hypsographic curve'.

87. Find the incorrect statement about continental slopes

1. Continental shelf is the seaward extension of land that lies under the sea water.
2. It occupies 9% of the sea floor.
3. The continental shelf slopes gently away from the water

A) 1 only

B) 2, 3 only

C) 1, 2 only

D) 2 only

Explanation

Continental shelf is the seaward extension of land that lies under the sea water. It occupies 7% of the sea floor. The continental shelf slopes gently away from the land and is covered with shallow seas with an average depth of 200

88. Find the correct statements about continental shelf

- A) The width of the continental shelf varies according to the nature of the rock beneath the crust.
- B) If the crust is dynamic then the shelf would be narrow and vice versa.
- C) **Both A and B**
- D) Neither A nor B

89. Continental shelves are formed due to

1. Fluvial deposits,
2. Marine erosion,
3. Tectonic forces,
4. Fluctuations in sea level in the past.

A) 1, 2, 3

B) 1, 2, 3, 4

C) 1, 3, 4

D) 2, 3, 4

Explanation

Continental shelves are formed due to either any one or combination of the factors like fluvial deposits, marine erosion, tectonic forces, and the fluctuations in sea level in the past.

90. Which are well known for oil, natural gas?

A) Continental shelf

- B) Continental Slope
- C) Continental rise
- D) Abyssal plain

Explanation

Continental shelves are formed due to either any one or combination of the factors like fluvial deposits, marine erosion, tectonic forces, and the fluctuations in sea level in the past. Continental shelves are well known for oil, natural gas, mineral deposits and coral reefs.

91. Find out the correct statement about continental shelf

- a. World famous fishing grounds like Grand Bank are situated here.
- b. The world's widest continental shelf is located along the coast of Siberia, in Australia
- c. The world's widest continental shelf is 1230 km long

A) a only

B) b only

C) c only

D) all the above

Explanation

Continental shelves are well known for oil, natural gas, mineral deposits and coral reefs. World famous fishing grounds like Grand Bank are situated here. The world's widest continental shelf (1210 km long) is located along the coast of Siberia, in Russia.

92. Find out the incorrect answer

- 1. Continental shelf on the west coast of India is formed by deltas of the Ganga, the Godavari, the Krishna and the Cauvery.
- 2. Continental shelf on the east coast of India the continental shelves are formed due to faulting and consequent submergence.

A) 1 only

B) 2 only

C) Both 1 and 2

D) Neither 1 nor 2

Explanation

Continental shelf on the east coast of India is formed by deltas of the Ganga, the Godavari, the Krishna and the Cauvery. On the West coast of India the continental shelves are formed due to faulting and consequent submergence.

93. Find the incorrect statement about continental slope

1. The zone of gentle slope extending from the continental shelf to the deep sea Plain is called continental slope.
2. The slope angle varies from 5° to 60°

- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

The zone of steep slope extending from the continental shelf to the deep sea plain or abyssal plain is called continental slope. The slope angle varies from 5° to 60°

94. The area between the continental slope and the sea floor is known as_____?

- A) Continental shelf
B) Continental Slope
C) **Continental rise**
D) Abyssal plain

Explanation

The area between the continental slope and the sea floor is known as the continental rise.

95. Find the incorrect statement about continental rise

- A) This part is noted for the accumulation of sediments similar to the alluvial fans near the foot hills in the land.
B) It represents the boundary between continents and abyssal plain.
C) **It constitutes about 7% of the oceanic area.**
D) A and B

Explanation

This part is noted for the accumulation of sediments similar to the alluvial fans near the foot hills in the land. It represents the boundary between continents and abyssal plain. It constitutes about 5% of the oceanic area.

96. Find out the correct statements

1. The Abyssal plain is the vast area of flat terrain in the bottom of the oceans.
 2. It is the largest part of ocean relief covering more than 50% of the total area
- A) 1 only
B) 2 only
C) **Both 1 & 2**
D) Neither 1 nor 2

97. Find out the correct statements about abyssal plains

- a. There is an accumulation of very fine sediments on the floor.
- b. The sediments are combinations of fine particles of clay and microorganisms.
- c. As in the case of sedimentary rocks of earth's surface these sediments are in layers and are used to trace geological events in the past

- A) a, b
- B) a, c
- C) a, b, c
- D) b, c

Explanation

There is an accumulation of very fine sediments on the floor. The sediments are combinations of fine particles of clay and microorganisms. As in the case of sedimentary rocks of earth's surface these sediments are in layers and are used to trace geological events in the past.

98. Find out the incorrect statements about mid oceanic ridges

1. The mid-ocean ridges are marine mountains.
2. They are Non continuous and are connected to form a single global mid oceanic ridge system.
3. They are formed by the tectonic forces acting above the earth.

- A) 1, 2
- B) 2, 3
- C) 1, 3
- D) 1, 2, 3

Explanation

The mid-ocean ridges are submarine mountains. They are continuous and are connected to form a single global mid oceanic ridge system. They are formed by the tectonic forces acting from within the earth.

99. Find the correct statement

1. Mid oceanic ridges are located on the convergent plate boundaries where magma flows through the fissure to form new oceanic crust.
2. They form the longest mountain range in the world extending for more than 56,000 km long and has a maximum width of 800–1,500 km.

- A) 1 only
- B) 2 only
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

Mid oceanic ridges are located on the divergent plate boundaries where magma flows through the fissure to form new oceanic crust. They form the longest mountain range in the world extending for more than 56,000 km long and has a maximum width of 800–1,500 km.

100. Find out the correct statement

1. The long, narrow, steep-sided depressions formed by tectonic forces beneath the continental rise are called Ocean trenches.
 2. Oceanic trenches actually extend 3 to 4 km below the level of the continental slope
- A) 1 only
B) 2 only
C) Both 1 and 2
D) **Neither 1 nor 2**

Explanation

The long, narrow, steep-sided depressions formed by tectonic forces beneath the abyssal plain are called Ocean trenches. Oceanic trenches actually extend 3 to 4 km below the level of the abyssal plain

101. Match the following

Oceanic trenches	Place
a) 3	- 1. The Pacific Ocean
b) 1	- 2. The Atlantic Ocean
c) 22	- 3. The Indian Ocean.
A) 2, 3, 1	
B) 1, 2, 3	
C) 3, 2, 1	
D) 3, 1, 2	

Explanation

26 oceanic trenches in the world: 22 in the Pacific Ocean, 3 in the Atlantic Ocean and only one in the Indian Ocean.

102. Find out the incorrect statement

- A) The Challenger Deep in the Pacific Ocean is the deepest part of the earth.
B) The challenger deep located in Mariana trench
C) **Height of the challenger deep is 20,994 m**
D) A trench forms along the convergent boundary where one plate Sub ducts below the other

Explanation

The Challenger Deep in the Mariana Trench, (10,994 m) in the Pacific Ocean is the deepest part of the earth. A trench forms along the convergent boundary where one plate subducts below the other

103. Total number of trenches in the world_?

- A) 27
- B) 22
- C) 26
- D) 24

104. Which of the following trench is located in Indian Ocean?

- A) Tonga Trench
- B) Kurile Trench
- C) Tizar Romanche
- D) **Sunda Trench**

Explanation

Sunda trench is located in east of the Indian Ocean

105. Find out the correct statements?

1. Aldrich trench also called as Tonga Trench
2. It is located in South Pacific.
3. Height of the trench is 10882 m

- A) 1, 2
- B) 2, 3
- C) 1, 3
- D) **1, 2, 3**

106. Match the following

Name of the Trench

Location

- | | |
|---------------------------------|---------------------------|
| a) Challenger in Mariana Trench | - 1. North Pacific |
| b) Tonga Trench | - 2. South Pacific |
| c) Kurile Trench | - 3. North Pacific Tizar |
| d) Romanche Trench | - 4. South Atlantic |
| e) Sunda Trench | - 5. East of Indian Ocean |

- A) 1, 2, 3, 5, 4
- B) 1, 3, 2, 4, 5
- C) **1, 2, 3, 4, 5**
- D) 2, 3, 1, 4, 5

107. Match the following

Name of the Trench **Depth (in Meters)**

- a) Challenger in Mariana Trench - 1. 10,994
 b) Aldrich or Tonga Trench - 2. 10,882
 c) Kurile Trench - 3. 10,554
 d) Tizar Romanche - 4. 7,761

- A) 1, 2, 4, 3
 B) 2, 4, 3, 1
 C) 1, 4, 3, 2
 D) 1, 2, 3, 4

Explanation

Major Ocean Trenches of the world

Name of the Trench	Location	Depth (in Metres)
Challenger in Mariana Trench	North Pacific	10,994
Aldrich or Tonga Trench	South Pacific	10,882
Kurile Trench	North Pacific	10,554
Tizar Romanche Trench	South Atlantic	7,761
Sunda Trench	East of Indian Ocean	7,450

108. Consider the following statements find out the correct answer

- 1) It is a land is a landmass surrounded by water on all sides.
 2) It may be formed on the continental shelf or as oceanic islands.
 A) Trenches
 B) Guyots
 C) **Islands**
 D) Seamounts

Explanation

An island is a landmass surrounded by water on all sides. Islands may be formed on the continental shelf or as oceanic islands. Most of the oceanic islands are volcanic in origin

109. Find out the incorrect statement

1. Group of islands formed by subduction of ocean plate
 2. These group of islands are known as archipelago.
 3. Islands of Japan form an archipelago.

- A) 1, 2
- B) 1, 3
- C) All the above
- D) None of the above**

110. Find out incorrect statement

1. Most of the oceanic islands are volcanic in origin.
 2. Marine organisms, the coral polyps colonize the tropical warm water and form islands known as coral islands.
 3. Lakshadweep Island in Indian Territory are volcanic origin.
 4. Andaman Nicobar islands made of corals.
- A) 1, 2
 - B) 2, 3
 - C) 3, 4
 - D) 1, 4**

Explanation

Marine organisms, the coral polyps colonize the tropical warm water and form islands known as coral islands. Lakshadweep Island in Indian Territory is made of corals. Andaman Nicobar islands are of volcanic origin.

111. Find out the correct statement

- A) Ocean deep is grouped into two categories based on their size.**
- B) Very deep but less extensive depression are called trenches.
- C) Long narrow linear and more extensive depressions are called deeps.
- D) B and C

Explanation

Ocean deep is grouped into two categories based on their size. Very deep but less extensive depression are called deeps. Long narrow linear and more extensive depressions are called 'trenches'.

112. Flat topped volcanic hills submerged under the sea water are called ____?

- A) Trenches
- B) Guyots**
- C) Islands
- D) Seamounts

Explanation

Flat topped volcanic hills submerged under the sea water are called guyots. It is a part of an underwater chain of volcanic mountains produced by slow plate movement.

113. Find out the correct statement about seamounts

1. Seamounts are spherical, volcanic hills submerged under ocean water.
 2. It reach to the water's surface.
 3. It is an isolated rise with an elevation of thousand meters or more from the surrounding sea floor and with a limited summit area
- A) 1 only
B) 2 only
C) 3 only
D) None of the above

Explanation

Seamounts are conical, volcanic hills submerged under ocean water. It does not reach to the water's surface. It is an isolated rise with an elevation of thousand meters or more from the surrounding sea floor and with a limited summit area

114. Find out the correct statement

1. Sea mounts occupies 3.39 percent of ocean region.
 2. Seamounts and guyots are most abundant in the South Pacific Ocean.
- A) 1 only
B) 2 only
C) Both 1 and 2
D) Neither 1 nor 2

Explanation

It occupies 4.39 percent of ocean region. Seamounts and guyots are most abundant in the North Pacific Ocean.

115. Continental shelf adjoining coasts of ____ and Indonesia varies in width from 160 to 1,600 km?

- A) Australia
B) Asia
C) Africa
D) America

Explanation

Continental shelf of the Eastern Pacific Ocean is very narrow due to the presence of trenches while those on the western coast are wide. Continental shelf adjoining coasts of Australia and Indonesia varies in width from 160 to 1,600 km

116. Find out the incorrect statement

1. In the Pacific Ocean, the continental shelf are very vast.
2. Absence of mid oceanic ridges is the main reason for deep sea plains.

- A) 1 only
B) 2 only
C) Both 1 and 2
D) Neither 1 nor 2

Explanation

In the Pacific Ocean, the abyssal plains are very vast. Absence of mid oceanic ridges is the main reason for deep sea plains.

117. Prominent submarine ridges of the Pacific Oceans are?

1. Albatross plateau
2. Cocos ridge
3. Aleutian ridge

- A) 1, 2
B) 2, 3
C) 3, 1
D) 1, 2, 3

Explanation

In the Pacific Ocean, the abyssal plains are very vast. Absence of mid oceanic ridges is the main reason for deep sea plains. Prominent submarine ridges of the Pacific Ocean are Albatross plateau, Cocos ridge and Aleutian ridge

118. Tasmania basin is located in _____?

- A) New Zealand
B) Australia
C) Japan
D) South Africa

Explanation

Tasmania basin (New Zealand) and east pacific basin are major basins of Pacific Ocean

119. Find out the correct statement

1. Pacific Ocean has about 35,000 islands.
 2. There are number of archipelagos both in East and South Pacific Ocean
- A) 1 only
B) 2 only
C) Both 1 and 2
D) **Neither 1 nor 2**

Explanation

Pacific Ocean has about 25,000 islands. There are number of archipelagos both in north and South Pacific Ocean.

120. Find out the correct statements

1. The Hawaii islands were formed by hotspot.
 2. The challenger deep in Mariana trench is the deepest part of Pacific Ocean (10994m).
- A) 1 only
B) 2 only
C) **Both 1 & 2**
D) Neither 1 nor 2

121. Consider the following statements, find the incorrect statement

1. Newfoundland in the North Atlantic Ocean is called Grand bank
 2. British islands in South Atlantic Ocean is called Dogger Bank.
- A) 1 only
B) **2 only**
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

In the North Atlantic Ocean, extensive continental shelves are found around the shores of Newfoundland (Grand bank) and British islands (Dogger Bank)

122. In which Ocean, a very extensive continental shelf is found between Bahia Blanca and Antarctica

- A) North Pacific Ocean
B) North Atlantic Ocean
C) **South Atlantic Ocean**
D) South Pacific Ocean

Explanation

In the South Atlantic Ocean, a very extensive continental shelf is found between Bahia Blanca and Antarctica

123. Find out the correct statement about Atlantic Ocean

- A) Bottom relief of Atlantic Ocean is the most striking relief feature.
- B) It is the 'S' shaped Mid-Atlantic ridge which extends for 16,000 km
- C) It extends from Iceland in the south to Bouvet Island in the north.
- D) **A and B**

Explanation

The most striking relief feature which is the 'S' shaped Mid-Atlantic ridge which extends for 16,000 km from Iceland in the north to Bouvet Island in the south.

124. Consider the following statements, find the correct answer

- 1. The ridge separates the Eurasian Plate and North American Plate in the North Atlantic, and the African Plate from the South American Plate in the South Atlantic
 - 2. Iceland and Faroe are the few peaks of this ridge.
- A) Cocos ridge
 - B) Aleutian ridge
 - C) **Mid-Atlantic ridge**
 - D) None of the above

Explanation

The relief feature of Atlantic Ocean is the most striking relief feature which is the 'S' shaped Mid-Atlantic ridge which extends for 16,000 km from Iceland in the north to Bouvet Island in the south. The ridge separates the Eurasian Plate and North American Plate in the North Atlantic, and the African Plate from the South American Plate in the South Atlantic. Iceland and Faroe are the few peaks of the Mid-Atlantic ridge.

125. Find out the incorrect statement about Atlantic Ocean

- A) The mid-Atlantic ridge divides the Atlantic Ocean into two major basins
- B) East and West Atlantic basins.
- C) **Puerto Rico Deep (9,380 m) is the deepest of all deeps in the Atlantic Ocean.**
- D) Other deeps are Romanche Deep and South Sandwich Trench.

Explanation

The mid-Atlantic ridge divides the Atlantic Ocean into two major basins, i.e., East and West Atlantic basins. Other basins are Spanish basin, north and south Canary basin, Guinea basin, Brazilian basin and Labrador basin. Puerto Rico Deep (8,380 m) is the deepest of all deeps in the Atlantic Ocean. Other deeps are Romanche Deep and South Sandwich Trench.

126. Which of the following is an island of South Atlantic Oceans

1. Sandwich Island
 2. Georgia Island
 3. Falkland Island
 4. Shetland Islands
- A) 1, 2, 3
B) 1, 3, 4
C) 1, 2, 3, 4
D) 2, 3, 4

Explanation

Sandwich island, Georgia Island, Falkland and Shetland islands are islands in the South Atlantic Ocean.

127. Find out the incorrect statement

1. The West Indies is an island archipelago near the main land of South America.
 2. British Isles and Newfoundland are famous islands, formed on the continental shelf in the South Atlantic Ocean
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

The West Indies is an island archipelago near the main land of North America. British Isles and Newfoundland are famous islands, formed on the continental shelf in the North Atlantic Ocean. Sandwich Island, Georgia Island, Falkland and Shetland islands are islands in the South Atlantic Ocean.

128. Find out the correct statement

- A) The Indian Ocean has continental shelf of varying width.
- B) Continental shelf along the coast of Arabian Sea, the Bay of Bengal and Andaman varies in width from 112km to 380km.
- C) A variety of coral reefs thrive in the warm temperate water of the Indian Ocean.

D) B and C

Explanation

The Indian Ocean has continental shelf of varying width. Continental shelf along the coast of Arabian Sea, the Bay of Bengal and Andaman varies in width from 192km to 280km. A variety of coral reefs thrive in the warm tropical water of the Indian Ocean.

129. Indian Ocean has a continuous central ridge called _____ ridge?

- A) **Arabic Indian ridge**
- B) East Indian ridge
- C) West Australian ridge
- D) South Indian ridge

130. Which of the following are ridges of Indian Ocean

- 1. Arabic Indian ridge
 - 2. East Indian ridge
 - 3. West Australian ridge
 - 4. South Madagascar ridge
- A) 1, 2, 3
 - B) 1, 3, 4
 - C) **1, 2, 3, 4**
 - D) 2, 3, 4

Explanation

Indian Ocean has a continuous central ridge called the Arabic Indian ridge. Other important ridges include the East Indian ridge, West Australian ridge, South Madagascar ridge. Basins of Indian Ocean include Comoro basin, North Australian basin, South Indian basin and the Arab basin.

131. The average depth of the Indian Ocean is _____?

- A) 3880 m
- B) **3890 m**
- C) 3780 m
- D) 2980 m

132. Find out the incorrect statement

- 1. Sunda deep near Java is the longest part of Indian Ocean
 - 2. Sunda deep is 7950m
- A) 1 only

- B) 2 only
- C) **Both 1 & 2**
- D) Neither 1 nor 2

Explanation

Sunda deep near Java is the deepest part of this ocean (7450m)

133. Find out the incorrect statement

- A) Madagascar and Sri Lanka are the most prominent islands present in Indian Ocean
- B) Reunion Island is located on a Hot spot.
- C) The average depth of the Indian Ocean is 3890m
- D) **None of the above**

Explanation

Madagascar and Sri Lanka are the most prominent islands present in Indian Ocean. Reunion Island is located on a Hot spot.

134. _____ islands in the Bay of Bengal are the raised part of mountains that are the extension of Arakan Yoma?

- A) Madagascar
- B) Sri Lanka
- C) **Andaman and Nicobar**
- D) Lakshwadeep

Explanation

Madagascar and Sri Lanka are the most prominent islands present in Indian Ocean. Andaman and Nicobar islands in the Bay of Bengal are the raised part of mountains that are the extension of Arakan Yoma which forms a part of Himalayas. Reunion Island is located on a Hot spot

135. Find out the correct statement

- 1. The measurement of degree of hotness or coldness of ocean water is referred to as ocean heat
 - 2. Temperature is normally measured in the unit of degree Celsius by thermometer.
- A) 1 only
 - B) **2 only**
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

The measurement of degree of hotness or coldness of ocean water is referred to as ocean temperature.

136. Find out the correct statement

- A) The major source of heat energy for ocean water is the radiation from sun.
- B) The heating and cooling capacity of water differs significantly from that of land.
- C) **Both A and B**
- D) Neither A nor B

137. The factors affecting distribution of ocean temperature are

- 1. Latitude
 - 2. Longitude
 - 3. Prevailing winds
 - 4. Ocean currents
 - 5. Local weather
- A) 1, 2, 3, 4
 - B) 1, 2, 4, 5
 - C) **1, 3, 4, 5**
 - D) 2, 3, 4, 5

Explanation

The factors affecting distribution of ocean temperature are latitude, prevailing winds, ocean currents and local weather.

138. Find out the incorrect statement

- 1. Direction of the wind affects the distribution of pressure of ocean water.
 - 2. The off shore winds blowing from the ocean towards land raise the temperature of ocean water.
 - 3. Winds blowing from snow covered regions in winter lower the surface temperature
- A) 1, 3
 - B) 2, 3
 - C) **1, 2**
 - D) 1, 2, 3

Explanation

Direction of the wind affects the distribution of temperature of ocean water. The off shore winds blowing from the land towards ocean or sea raise the temperature of ocean water. Winds blowing from snow covered regions in winter lower the surface temperature

139. Find out the correct statement

1. In trade wind belt, the off shore winds initiate upwelling of warmer water from beneath
 2. In trade wind belt the on shore winds pile up warm water to decrease the temperature to certain extent.
- A) 1 only
B) 2 only
C) Both 1 & 2
D) **Neither 1 nor 2**

Explanation

In trade wind belt, the off shore winds initiate upwelling of cooler water from beneath and on shore winds pile up warm water to increase the temperature to certain extent.

140. Gulf Stream is_____ current

- A) **Warm current**
B) Cold current
C) Both warm and cold current
D) None of the above

Explanation

Warm currents raise the temperature of the oceans where they flow whereas cold currents lower down the temperature. Gulf Stream is warm current.

141. Find out the correct statement

- A) Gulf Stream decreases the temperature of the eastern part of North America and the west coast of Europe.
B) Labrador warm current reduces the temperature near north eastern coast of North America.
C) **Warm currents raise the temperature of the oceans where they flow**
D) A & B

Explanation

Gulf Stream (warm current) increases the temperature of the eastern part of North America and the west coast of Europe. Labrador cold current reduces the temperature near north eastern coast of North America.

142. Which of the following affect the surface temperature of ocean water.

1. Submarine ridges
2. Storms
3. Cyclones

4. Hurricanes
 5. Fog
 6. Cloudiness
 7. Evaporation
- A) 1, 2, 3, 4, 5
B) 1, 2, 3, 6, 7
C) 1, 3, 4, 5, 6, 7
D) 1, 2, 3, 4, 5, 6, 7

Explanation

Apart from these, some minor factors like submarine ridges, local weather conditions like storms, cyclones, hurricanes, fog, cloudiness, evaporation and condensation also affect the surface temperature of ocean water.

143. Find out the correct statement

1. The diurnal range and annual range of temperature of ocean is much higher than that of the land.
 2. The temperature of the sea surface is highest (27°C to 30°C) not near Equator but few degrees north of the Equator.
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

The diurnal range and annual range of temperature of ocean is much less than that of the land. The temperature of the sea surface is highest (27°C to 30°C) not near Equator but few degrees north of the Equator.

144. The lowest temperature recorded near the poles is?

- A) -1.2°C
B) -1.0°C
C) -1.9°C
D) -1.7°C

145. The maximum and minimum annual temperatures of ocean water are recorded which month in Northern hemisphere?

- A) August and February
B) August and January

- C) July and February
- D) August and March

Explanation

The lowest temperature recorded is -1.9°C near the poles. The maximum and minimum annual temperatures of ocean water are recorded in August and February in the Northern hemisphere and reverse in case of the southern hemisphere.

146. Consider the following statements about upper layer of the ocean, find the correct statement

1. The uppermost layer of ocean water is cold and well mixed surface layer
2. The average temperature of upper most layer of ocean water is between 20° and 35°C .
3. The depth of this layer does not varies according to seasons.
4. On an average this layer extends up to 500 m in tropical region

- A) 1, 3, 4
- B) 1, 2, 3
- C) All the above
- D) **None of the above**

Explanation

The uppermost layer of ocean water is warm and well mixed surface layer with average temperature between 20° and 25°C . The depth of this layer varies according to seasons. On an average this layer extends up to 200 m in tropical region.

147. Find out the correct statement about thermocline layer

1. Beneath the upper most layer of ocean lies the thermocline layer.
2. Thermocline layer varies in depth Between 500 meter to 1000 meter.
3. Thermocline layer is unique that the temperature increases rapidly with increasing depth.

- A) **1 only**
- B) 2 only
- C) 3 only
- D) All the above

Explanation

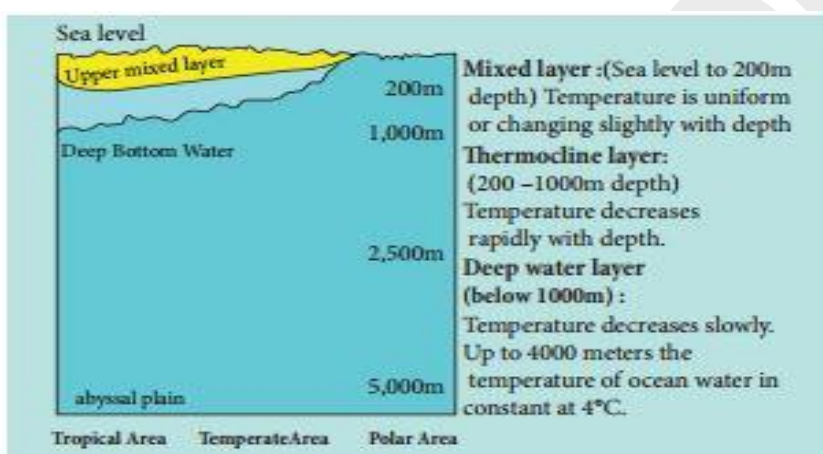
Beneath the upper most layer of ocean lies the thermocline layer. This layer varies in depth Between 200 meter to 1000 meter. This layer is unique that the temperature decreases rapidly with increasing depth.

148. Find out the correct statement

1. Below the thermocline temperature decrease is gradual up to 5000m.
 2. Beneath this depth the temperature of ocean water is constant at 9°C
- A) 1 only
B) 2 only
C) Both 1 & 2
D) **Neither 1 nor 2**

Explanation

Below the thermocline temperature decrease is gradual up to 4000m. Beneath this depth the temperature of ocean water is constant at 4°C



149. Find out the incorrect statement

1. Depth of water is measured in the unit 'Fathom'.
 2. One fathom is equal to 1.8 meter
 3. One fathom is equal to six feet
- A) 1, 2
B) 2, 3
C) All the above
D) **None of the above**

150. Find out the correct statement

1. Salinity is defined as the ratio between the weights of dissolved salts per 100 grams of water.
 2. Salinity is expressed as part per thousand (‰) and has no units.
- A) 1 only
B) **2 only**
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Salinity is defined as the ratio between the weights of dissolved salts (in grams) per 1000 grams of water. It is expressed as part per thousand (‰) and has no units. Example: 30‰ means 30 grams in 1,000 grams of sea water.

151. The average ocean salinity is ____‰

- A) 35 ‰
- B) 30 ‰
- C) 45 ‰
- D) 25 ‰

152. The salinity of ocean water depends upon

1. The rate of condensation
2. Amount of precipitation,
3. Addition of fresh water flow from seas
4. Ice in Polar Regions

- A) 1, 4
- B) 2, 4
- C) 1, 3
- D) 1, 2, 3, 4

Explanation

The salinity of ocean water depends upon - The rate of evaporation, Amount of precipitation, Addition of fresh water flow from rivers, Ice in Polar Regions, Upwelling of deep water initiated by prevailing winds and Mixing of water by ocean currents.

153. Find out the correct statement about ocean salt

- A) Most of the ocean salts are derived from weathering and erosion of the earth's core by the rivers.
- B) **Some of the ocean salts have been dissolved from rocks and sediments below the sea floor**
- C) While others have escaped from the earth's crust through volcanic vents as liquid and gaseous materials.
- D) A & C

Explanation

Most of the ocean salts are derived from weathering and erosion of the earth's crust by the rivers. Some of the ocean salts have been dissolved from rocks and sediments below the sea floor, while others have escaped from the earth's crust through volcanic vents as solid and gaseous materials.

154. Find out the correct statement about sea water

1. Sea water is a weak but complex solution
 2. It is made up of many things including mineral salts
 3. It is made up of decayed biological marine organisms.
- A) 1, 2
B) 1, 3
C) 1, 2, 3
D) 2, 3

Explanation

Sea water is a weak but complex solution made up of many things including mineral salts and decayed biological marine organisms.

155. Find out the incorrect statement

1. In partially enclosed seas, their bottom relief and the submarine ridges with shallow water allow free mixing of open sea water.
 2. The temperature at the depth of 1800m in the Dead Sea is higher than the temperature recorded at the same depth in the Indian Ocean.
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

In partially enclosed seas, their bottom relief and the submarine ridges with shallow water do not allow free mixing of open sea water. The temperature at the depth of 1800m in the Red Sea is higher than the temperature recorded at the same depth in the Indian Ocean.

156. On an average the salinity _____ from equator towards the poles.

- A) Increases
B) Decreases
C) No change
D) Increases after decreasing

157. Consider the following statements:

Assertion (A): The highest salinity is observed between 20° and 40° north latitudes.

Reason (R): This zone is characterized by low temperature, low evaporation but high rain than the equatorial region.

Codes:

- A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- C) (A) is true but (R) is false
- D) (A) is false but (R) is true

Explanation

On an average the salinity decreases from equator towards the poles. The highest salinity is observed between 20° and 40° north latitudes because this zone is characterized by high temperature, high evaporation but less rain than the equatorial region.

158. Consider the following statements:

Assertion (A): The marginal areas of the oceans bordering the continents have lower salinity than their interior.

Reason (R): addition of fresh water to the marginal areas through the rivers

Codes:

- A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- C) (A) is true but (R) is false
- D) (A) is false but (R) is true

Explanation

The marginal areas of the oceans bordering the continents have lower salinity than their interior due to addition of fresh water to the marginal areas through the rivers

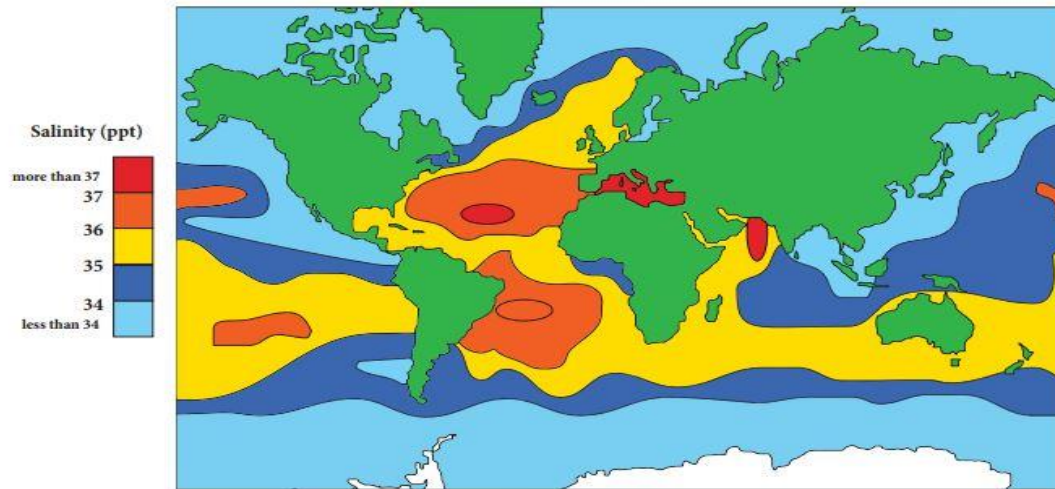


Figure 5.15 Salinity of the Oceans

159. Very high salinity is recorded in Lake Von located in_____?

- A) Uganda
- B) Turkey**
- C) Egypt
- D) Africa

160. Match the following

Place	Salinity
a) Lake Von	- 1. 330‰
b) Dead Sea	- 2. 238‰
c) Great Salt Lake	- 3. 220‰

Explanation

Very high salinity is recorded in Lake Von, Turkey (330‰) Dead Sea (238‰) and Great Salt Lake, Utah, USA (220‰).

161. Raking is the process in

- A) Collection of fishes
- B) Collection of salt**
- C) Collection of pearls
- D) Collection of sand

Explanation

Raking refers to the use of a rake, a traditional wooden tool with the long handle and long pointed wooden toothed spade at the bottom for collecting salt.

162. Isohaline is an imaginary line drawn to join places having equal _____?

- A) Precipitation
- B) Rainfall
- C) **Salinity**
- D) None of the above

163. Find out the incorrect statement about Dead Sea

- 1. Salinity of Dead Sea is 6.8 times saltier than other oceans.
 - 2. The shore of Dead Sea is 324m below sea level.
 - 3. It has the highest elevation on land.
- A) 1, 2
 - B) 3 only
 - C) **All the above**
 - D) None of the above

Explanation

Salinity of Dead Sea is 8.6 times saltier than other oceans. The shore of Dead Sea is 423m below sea level. It has the lowest elevation on land.

164. Consider the following statements find the correct answer

- 1. The sea is 377m deep.
 - 2. The high salt content will make people float on the sea
- A) Red Sea
 - B) Caspian Sea
 - C) **Dead Sea**
 - D) South China Sea

Explanation

The sea is 377m deep. The high salt content will make people float on the sea. The high salt content has made the Dead Sea devoid of life in it

165. Find out the incorrect statement

- A) Water in the ocean is never in a state of rest.
- B) Ocean water is always in motion.
- C) It moves horizontally as well as vertically.

D) The movement of ocean water takes place in two different ways as waves, tides.

Explanation

Water in the ocean is never in a state of rest. Ocean water is always in motion. It moves horizontally as well as vertically. The movement of ocean water takes place in three different ways as waves, tides and ocean currents.

166. Find out the correct statement

1. The waves are oscillating movements in the ocean water which transfer temperature from place to place.
2. Waves are caused by friction of wind on the surface of water
3. Waves are caused by any other disturbances on the sea bottom

- A) 1, 2
B) 2, 3
C) 3, 1
D) 1, 2, 3

Explanation

The waves are oscillating movements in the ocean water which transfer energy from place to place. They are caused by friction of wind on the surface of water or any other disturbances' on the sea bottom

167. Match the following

- | | |
|----------------|---|
| a) Trough | - 1. The upper or highest part of a wave |
| b) Wave height | - 2. The lowest part of a wave |
| c) Crest | - 3. The vertical distance between the crest and the trough |

- A) 2, 3, 1
B) 1, 2, 3
C) 2, 1, 3
D) 1, 3, 2

Explanation

Crest: The upper or highest part of a wave is called the crest. Trough: The lowest part of a wave is called the trough. Wave height: The vertical distance between the crest and the trough is known as wave height

168. Find out the incorrect statement

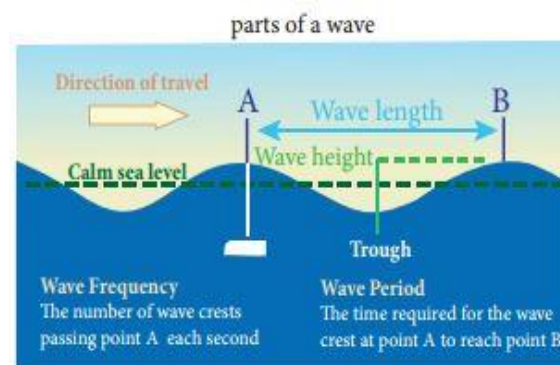
1. The vertical distance between two crests.

2. The vertical distance between two troughs

- A) 1 only
- B) 2 only
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

Wave length: The horizontal distance between two crests or two troughs is known as wave length.



169. Find out the correct statement

- 1. Wave amplitude is two-half of the wave height.
 - 2. Fetch is the distance of open water across which the wind cannot blow without interruption
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

Wave amplitude is one-half of the wave height. The distance of open water across which the wind can blow without interruption is called fetch

170. Find out the correct statement

- 1. The number of wavelengths that pass a fixed point per unit of time is frequency.
 - 2. 1000 waves per sec per cm is called frequency
 - 3. Velocity refers to speed and direction.
- A) 1, 2, 3
 - B) 1, 2
 - C) 1, 3
 - D) 2, 3

Explanation

Frequency: The number of wavelengths that pass a fixed point per unit of time is frequency. Example, 100 waves per sec per cm. Velocity: Refers to speed and direction.

171. Find out the correct statement

1. The time taken by one wavelength to pass a fixed point is known as period.
2. Steepness of the wave is equal to the length divided by height

A) 1 only

B) 2 only

C) Both 1 & 2

D) Neither 1 nor 2

Explanation

Steepness of the wave is equal to the height divided by length. (H/L)

172. Find out the correct statement

1. The rhythmic rise and fall of the sea water is called tide
2. Tide is formed due to gravitational push of the moon and the sun
3. Isaac Newton (1642–1727) was the first person to explain tides scientifically

A) 1, 2

B) 1, 3

C) 2, 3

D) 1, 2, 3

Explanation

The rhythmic rise and fall of the sea water due to gravitational pull of the moon and the sun is called a Tide. Isaac Newton (1642–1727) was the first person to explain tides scientifically

173. Find out the incorrect statement

1. The rise of seawater towards the land is known as High tide or flow tide.
2. The fall of seawater more towards land is known as 'Low tide water'.
3. Low tide water also called as ebb tide

A) 1 only

B) 2 only

C) 3 only

D) None of the above

Explanation

The rise of seawater towards the land is known as High tide or flow tide. The fall of seawater more towards sea is known as 'Low tide water' or ebb tide.

174. On any day there will be how many high tides and two low tides?

- A) 3
- B) 4
- C) 8
- D) 2

175. Find out the correct statement

1. The highest high tide occurs on full moon day.
 2. The highest high tide occurs on new moon day
 3. The highest high tide is known as spring tide
 4. Spring tide happens when the sun, earth and moon aligned in vertical line.
- A) 1, 3, 4
 - B) 1, 2, 4
 - C) 1, 2, 3
 - D) 1, 2, 3, 4

Explanation

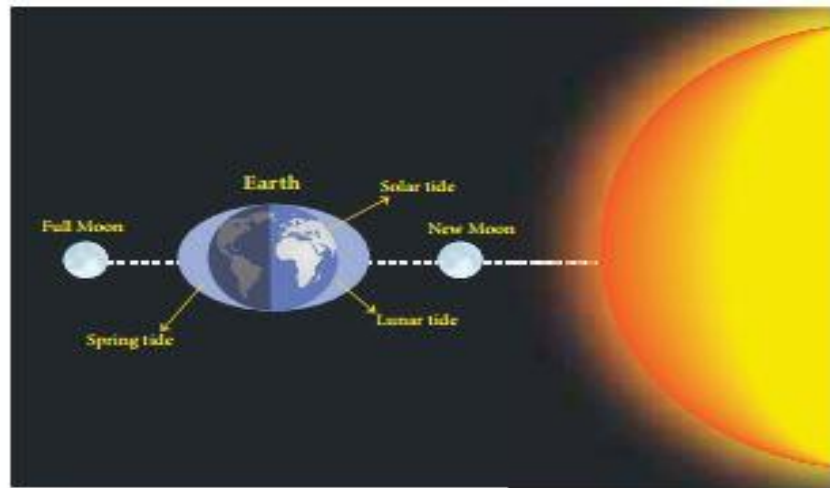
The highest high tide occurs on full moon day and new moon day. It is known as spring tide. Spring tide happens when the sun, earth and moon aligned in straight line.

176. Find out the correct statement

1. The lowest low tide is known as neap tide.
 2. Neap tide happens when the sun, earth and moon are positioned at left angles.
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

The lowest low tide is known as neap tide. It happens when the sun, earth and moon are positioned at right angles.



177. Find out the correct statement

1. The movement of ocean water as a result of tidal action is known as a tidal current.
 2. In places of narrow coastal inlet these tidal currents flow rapidly through the mouth with lesser height and velocity
 3. Bay of Fundy, between Nova Scotia and New Brunswick of China, the difference between high and low tides is as high as 14m.
- A) 1, 2
B) 1 only
C) 3 only
D) 1, 2, 3

Explanation

The movement of ocean water as a result of tidal action is known as a tidal current. In places of narrow coastal inlet these tidal currents flow rapidly through the mouth with greater height and velocity. Bay of Fundy, between Nova Scotia and New Brunswick of Canada, the difference between high and low tides is as high as 14m.

178. In India tidal ports are located in

1. Kandla
 2. Kolkata
 3. Chennai
 4. Mumbai
- A) 2, 3
B) 1, 3
C) 1, 2
D) 3, 4

Explanation

Ports which utilize the tidal current for entry and exit of ships from the harbour are known as tidal ports. In India Kolkatta and Kandla are examples of tidal harbours.

179. Find out the correct statement

- A) The Gulf of Cambay and the Gulf of Kutch in Gujarat is on the west coast.
- B) Average tidal range of The Gulf of Cambay and the Gulf of Kutch 11m and 8m respectively
- C) Maximum tidal range of The Gulf of Cambay and the Gulf of Kutch 6.77m and 5.23m respectively
- D) B and C

Explanation

The Gulf of Cambay and the Gulf of Kutch in Gujarat on the west coast have the maximum tidal range of 11m and 8m with average tidal range of 6.77m and 5.23m respectively

180. Find out the correct statement

- 1. Tides help to clear the sediments deposited by lakes on their bed and thus prevent siltation of harbors.
 - 2. The energy of the tides is used to generate electricity
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

Tides help to clear the sediments deposited by rivers on their bed and thus prevent siltation of harbors. The energy of the tides is used to generate electricity.

181. Tidal power stations have been set up in

- 1. UK
 - 2. Canada
 - 3. France
 - 4. Japan
 - 5. US
- A) 1, 2, 3
 - B) 2, 3, 4, 5
 - C) 1, 2, 3, 4
 - D) 3, 4, 5, 2

Explanation

Tidal power stations have been set up in UK, Canada, France and Japan. In India Gulf of Khambhat, Gulf of Kutch and Sundarbans have scope for tidal energy production.

182. Large mass of moving water from one part of the ocean to another in a definite direction is called as

- A) Ocean currents**
- B) Streams
- C) Tides
- D) Waves

Explanation

Ocean currents can be classified on the basis of mode of origin, volume and velocity and boundaries.

183. Ocean currents are produced due to

- 1. Earth's rotation
 - 2. Revolution of the earth
 - 3. Rainfall
 - 4. Temperature
 - 5. Salinity
 - 6. Density
 - 7. Air pressure
 - 8. Winds
- A) 1, 2, 3, 4, 5, 6
 - B) 1, 4, 5, 6, 7, 8**
 - C) 2, 3, 4, 5, 6, 7, 8
 - D) 4, 5, 6, 7, 8

Explanation

Large mass of moving water from one part of the ocean to another in a definite direction is called as ocean current. The movement is produced due to earth's rotation, temperature difference of ocean water, salinity, density and some extent due to air pressure and winds

184. Find out the correct statement

- 1. In the order of velocity ocean currents can be classified as drifts, currents and streams.
- 2. Currents are movement of surface water of low velocity influenced by prevailing winds
- 3. Drifts are movement of oceanic water in definite direction and greater velocity

- A) 1, 2, 3
- B) 2, 3
- C) **1 only**
- D) 1, 2

Explanation

In the order of velocity ocean currents can be classified as drifts, currents and streams. Drifts are movement of surface water of low velocity influenced by prevailing winds, currents are movement of oceanic water in definite direction and greater velocity

185. Which are larger mass of water moving in a definite direction and much greater velocity

- A) Drifts
- B) Currents
- C) Rivers
- D) **Streams**

Explanation

Currents are movement of oceanic water in definite direction and greater velocity and streams are larger mass of water moving in a definite direction and much greater velocity than the drifts and currents.

186. Find out the incorrect statement

1. Ocean currents are distinguished by the pressure they possess.
 2. When ocean currents originate from equator it is termed as cold current.
 3. When a current starts from polar region it is termed as warm current.
- A) 1, 2
 - B) 2, 3
 - C) **All the above**
 - D) None of the above

Explanation

Ocean currents are distinguished by the temperature they possess. When ocean currents originate from equator it is termed as warm current. Likewise when a current starts from polar region it is termed as cold current.

187. Find out the correct statement

1. Down welling is an oceanographic phenomenon that involves movement of dense, cooler, and usually nutrient-rich water towards the ocean surface, replacing the warmer, usually nutrient-depleted surface water.
 2. Upwelling is the process of accumulation and sinking of cold high saline water beneath warmer or fresher water.
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Vertical circulation of ocean water takes place due to difference in salinity and temperature between the surface and the water deep below Upwelling is an oceanographic phenomenon that involves movement of dense, cooler, and usually nutrient-rich water towards the ocean surface, replacing the warmer, usually nutrient-depleted surface water. Down welling is the process of accumulation and sinking of cold high saline water beneath warmer or fresher water.

188. The warm currents from the equator flows over the surface of ocean towards the pole and sink to the bottom of the ocean floor in the higher latitudes due to high density and flow towards the equator to complete the circulation. It is known as

- A) Gyre
B) Guyots
C) Currents
D) All the above

189. In every ocean, there is circulation of ocean water from ___ to _____?

1. Equator to tropics
 2. Equator to pole
 3. Pole to equator
 4. Tropics to equator
- A) 1, 2, 3
B) 1, 4
C) 2, 3
D) 1, 2, 3, 4

Explanation

In every ocean, there is circulation of ocean water from Equator to pole and from pole to equator. The warm currents from the equator flows over the surface of ocean towards the pole and sink to

the bottom of the ocean floor in the higher latitudes due to high density and flow towards the equator to complete the circulation. This large scale circulation is known as gyre.

190. Find out the incorrect statement

1. The gyre circulates is clockwise in the southern hemisphere
 2. The gyre circulates anti-clockwise in the northern hemisphere
- A) 1 only
B) 2 only
C) **Both 1 & 2**
D) Neither 1 nor 2

Explanation

The gyre circulates is clockwise in the northern hemisphere and anti-clockwise in the southern hemisphere.

191. North equatorial current originates in_____?

- A) South Africa
B) Australia
C) South China Sea
D) **Mexico**

Explanation

North equatorial current originates from Revilla Gigedo Island west of Mexico and flows towards the Philippines Island covering a distance of about 12,000 km from east west.

192. Find out the incorrect statement about north equatorial current

- A) **It is a cold current.**
B) It derives from its water from the Californian current and
C) It derives from its water from the South east Monsoon drift
D) B and C

Explanation

It is a warm current. It derives from its water from the Californian current and the South east Monsoon drift which flows north along the Mexican coast.

193. Find out the correct statement about north equatorial current

1. The volume of water increases from east to west
2. Because many small currents join it from left

- A) 1 only
- B) 2 only
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

North equatorial current originates from Revilla Gigedo Island west of Mexico and flows towards the Philippines Island covering a distance of about 12,000 km from east west. It is a warm current from. The volume of water increases from east to west as many small currents join it from right

194. Find out the correct statement about north equatorial current

- 1. North Equatorial current gets divided into two
 - 2. The southern branch joins the Kuroshio Current
 - 3. The northern branch abruptly turns and forms the Pacific counter current.
- A) 3 only
 - B) 1 only**
 - C) 2, 3 only
 - D) 1, 2, 3

Explanation

North Equatorial current gets divided into two and the northern branch joins the Kuroshio Current and the southern branch abruptly turns and forms the Pacific counter current.

195. Find out the correct statement

- 1. South equatorial current extends for about 11,600km
 - 2. South equatorial current extends from east to west
- A) 1 only
 - B) 2 only**
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

South equatorial current extends for about 13,600km from east to west

196. Find out the incorrect statement about south equatorial current

- 1. South equatorial current is originated due the action of the western disturbance from east to west.
- 2. It is a cold current.

3. It extends for about 13,600km

- A) 1 only
- B) 1, 2 only**
- C) 2 only
- D) None of the above

Explanation

South equatorial current is originated due the action of the trade winds from east to west. It is a warm current

197. _____stronger than the North equatorial current?

- A) Kuroshio Current
- B) West Wind Drift
- C) Peru Current
- D) South equatorial current**

198. Consider the following statements.

Assertion (A): South equatorial current is further divided into many branches.

Reason (R): Due to the presence of many ocean currents and uneven surface topography.

Codes:

- A) Both (A) and (R) are true and (R) is the correct explanation of (A)
- B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- C) (A) is true but (R) is false**
- D) (A) is false but (R) is true

Explanation

South equatorial current is further divided into many branches due to the presence of many islands and uneven surface topography.

199. Consider the following statements find the correct answer

- 1. It is a warm ocean current
- 2. It flows in north easterly direction up to 30 degree N latitude
- A) Kuroshio Current**
- B) West Wind Drift
- C) Peru Current
- D) South equatorial current

200. Find out the incorrect statement

1. Kuroshio Current flows towards South
 2. Kuroshio Current meets Oyashio cold current off the Philippines Islands
- A) 1 only
B) 2 only
C) **Both 1 & 2**
D) Neither 1 nor 2

Explanation

It flows towards north and meets Oyashio cold current off the Kuril Islands

201. Which current is also called as Japan Current

- A) **Kuroshio Current**
B) West Wind Drift
C) Peru Current
D) South equatorial current

202. Kuroshio Current also called as

- A) White tide
B) **Black tide**
C) Silver tide
D) None of the above

204. Which of the following is cold current

- A) **Oyashio Current**
B) North equatorial current
C) Peru Current
D) South equatorial current

Explanation

It is a cold current. It meets with Kuroshio warm current and Aleutian current.

205. Find out the incorrect statement about oyashio current

1. Oyashio current originates from the Palk Strait
 2. It flows towards north carrying cold water
 3. Oyashio current also called as parental tide
- A) **1, 2**
B) 2, 3
C) 1, 2, 3

D) None of the above

Explanation

It originates from the Bering Strait and flows towards south carrying cold water. It is a cold current. It meets with Kuroshio warm current and Aleutian current.

206. Find out the correct statement

1. Californian current is flowing towards south along the west coast of U. K
 2. Californian current is flowing between 48 degree N and 23 degree N latitudes
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Californian current is flowing towards south along the west coast of U.S.A between 48 degree N and 23 degree N latitudes

207. Consider the following statements about oyashio current, find incorrect answer

1. It is cold current which exhibits great amount of down welled water.
 2. When it enters the region of westerly winds, it is deflected to the right
 3. After the deflection it joins the equatorial current
- A) 1, 2
B) 2, 3
C) 3, 1
D) None of the above

Explanation

It is cold current which exhibits great amount of up welled water. When it enters the region of Trade winds, it is deflected to the right and joins the equatorial current

208. Which is known as Humboldt Current

- A) Oyashio Current
B) North equatorial current
C) **Peru Current**
D) South equatorial current

209. Find out the correct statement

1. Peru Current is perhaps the best studied ocean current of the Atlantic Ocean.
 2. Alexander Von Humboldt in 1502 noted the details of the Peru Current.
 3. Peru Current is a warm current
- A) 1, 2
B) 2, 3
C) 3, 1
D) 1, 2, 3

Explanation

Peru Current is perhaps the best studied ocean current of the Pacific Ocean. Alexander Von Humboldt in 1802 noted the details of the Peru Current. Hence, it is also known as Humboldt Current. It is a cold current

210. Find out the correct statement

1. Peru Current is flowing towards north along the west coast of South Africa
 2. Peru Current carries warm water from northerly deflection of the Sub-Antarctica water moving in 40 degree south
- A) 1 only
B) 2 only
C) Both 1 & 2
D) **Neither 1 nor 2**

Explanation

It is flowing towards north along the west coast of South America carrying cold water from northerly deflection of the Sub-Antarctica water moving in 40 degree south

211. Which of the following is warm current

- A) Oyashio Current
B) Peru Current
C) **El Nino**
D) California Current

212. Find out the incorrect statement about El Nino

- A) It is a warm counter ocean current of the pacific equatorial waters
B) **It is flowing south ward at 200 m depth to a distance about 480 km**
C) It is also called as counter current
D) A and C

Explanation

It is a warm counter ocean current of the Pacific equatorial waters flowing southward at 400 m depth to a distance about 180 km.

213. Find out the correct statement about west wind drift

1. It is an westerly moving drift in the Pacific Ocean
 2. It is extending from Tasmania to the South American coast
- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

It is an easterly moving drift in the Pacific Ocean extending from Tasmania to the South American coast

214. Find out the incorrect statement about west wind drift

- A) It is a cold current.
B) The speed of the drift is lesser under the influence of Roaring Forties
C) It splits into three branches
D) B and C

Explanation

It is a cold current. The speed of the drift is greater under the influence of Roaring Forties. It splits into two branches

215. Consider the following statements find the correct answer

1. It splits into two branches and one moves south around the Cape Horn into the Atlantic Ocean
 2. The Other one moves northward along the Peruvian coast due to deflection and joins the Peru Current
- A) Oyashio Current
B) North equatorial current
C) West wind drift
D) South equatorial current

216. Which current is situated Between 5 degree – 20degree N Latitudes

- A) Oyashio Current
B) North equatorial current
C) West wind drift

D) South equatorial current

Explanation

North equatorial current is flowing from east to west. It is a warm current. It is situated between 5 degree – 20 degree N latitudes.

217. Find out the incorrect statement

1. After leaving the west coast of Australia north equatorial current attains its main characteristics.
2. When it reaches the east coast of South America, it splits into two branches
3. One branch called Antilles current is moving along the coast of Africa
4. Other branch is diverted into the Caspian Sea.

A) 1, 2, 3

B) 1, 3, 4

C) All the above

D) None of the above

Explanation

After leaving the west coast of Africa, north equatorial current attains its main characteristics. When it reaches the east coast of South America, it splits into two branches and one branch called Antilles current is moving along the coast of West Indies and other branch is diverted into the Caribbean Sea.

218. Consider the following statements, find the correct answer

1. It is a warm current.
2. It is a northern continuation of Benguela current.
3. It is stronger than the North equatorial ocean current

A) North equatorial current

B) West wind drift

C) South equatorial current

D) Peru current

219. Find out the incorrect statement about south equatorial current

1. It is flowing south of equator within 10 degree – 12 degree S latitude
2. It is flowing between the coast of Australia and South America

A) 1 only

B) 2 only

C) Both 1 & 2

D) Neither 1 nor 2

Explanation

South Equatorial current is flowing south of equator within 0 degree – 12 degree S latitude in between the coast of Africa and South America. It is a warm current. It is a northern continuation of Benguela current. It is stronger than the North equatorial ocean current.

220. Which is caused by the action of Trade winds?

- A) **South equatorial current**
- B) West wind drift
- C) North equatorial current
- D) Peru current

221. Which is starts from the Gulf of Mexico and carries warm waters into the colder latitudes

- A) South equatorial current
- B) West wind drift
- C) North equatorial current
- D) **Gulf stream**

Explanation

Gulf Stream starts from the Gulf of Mexico and carries warm waters into the colder latitudes.

222. Gulf Stream is a

- A) **Warm current**
- B) Cold current
- C) Medium warm current
- D) None of the above

Explanation

It is a warm current. It bends with the coastline up to 40th parallel after which the direction is almost to the east, due to the force and the direction of the westerlies and the deflective force of the earth

223. Find out the incorrect statement

- A) **Gulf Stream joins the Labrador cold current near New Found land, Russia after passing through the strait of Florida.**
- B) The Gulf Stream was discovered by Ponce de Leon in 1513.
- C) Gulf Stream is one of the currents of Atlantic Ocean
- D) B and C

Explanation

It joins the Labrador cold current near New Found land, Canada after passing through the strait of Florida. The Gulf Stream was discovered by Ponce de Leon in 1513.

224. Find out the correct statement about Canaries Current

1. The ocean current flowing along the Western coast of North America between Maderia and Cape verde is known as the Canaries Current.
 2. It is a cold current.
 3. It is flowing towards south and merging with the South equatorial current.
- A) 1, 2
B) 3 only
C) **2 only**
D) 1, 2, 3

Explanation

The ocean current flowing along the Western coast of North Africa between Maderia and Cape verde is known as the Canaries Current. It is a cold current. It is flowing towards south and merging with the North equatorial current.

225. Find out the correct statement about benguela current

1. It is a cold current flowing northward along the western coast of Africa is known as the Benguela current.
 2. It carries cold waters from sub-Antarctica surface water
 3. The cold water carried by this current mixes with south equatorial current.
- A) 1, 2
B) 2, 3
C) **All the above**
D) None of the above

226. The Sargasso Sea located in

- A) Pacific Ocean
B) Southern Ocean
C) Atlantic Ocean
D) Arctic Ocean

Explanation

The Sargasso Sea occupies about two thirds of the North Atlantic Ocean, stretching seven hundred miles wide and two thousand miles long

227. The only "sea" with absolutely no land around it is_____?

- A) Caspian Sea
- B) Dead Sea
- C) Red Sea
- D) Sargasso Sea

Explanation

The only "sea" with absolutely no land around it, the Sargasso Sea got its name from common brown seaweed called Sargassum that floats in vast mats in its waters

228. The Sargasso Sea's is surrounded by

- 1. East - The Gulf Stream
- 2. South - The North Atlantic Current, to the
- 3. West - The Canary Current, and to the
- 4. North - The North Atlantic Equatorial Current.

Explanation

The Gulf Stream establishes the Sargasso Sea's western boundary, while the Sea is further defined to the north by the North Atlantic Current, to the east by the Canary Current, and to the south by the North Atlantic Equatorial Current.

229. Find out the correct statement about Sargasso Sea

- A) The Sargasso Sea is surrounded only by ocean currents.
- B) It lies within the Southern Atlantic Subtropical Gyre.
- C) Its borders are dynamic
- D) A and C

Explanation

The Sargasso Sea is surrounded only by ocean currents. It lies within the Northern Atlantic Subtropical Gyre.

230. The south Indian gyre is formed by

- 1. South equatorial current
- 2. North equatorial current
- 3. Peru current
- 4. Madagascar current
- 5. West wind drift
- 6. West Australian current

- A) 1, 2, 3, 4, 5
- B) 1, 4, 5, 6**
- C) 1, 2, 3, 4, 6
- D) 1, 2, 3, 4, 5, 6

Explanation

The south Indian gyre is formed by south equatorial current, Madagascar current west wind drift and west Australian current

231. Find out the incorrect statement

1. To the north of equator the currents in the Arabian Sea and Bay of Bengal flow in the anti-clockwise direction
 2. In the clockwise direction as northeast monsoon drift due to the influence of monsoon winds.
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2**
 - D) Neither 1 nor 2

Explanation

To the north of equator the currents in the Arabian Sea and Bay of Bengal flow in the clockwise direction as southwest monsoon drift and in the anti-clockwise direction as northeast monsoon drift due to the influence of monsoon winds.

232. The Antarctic circumpolar current flows between ____latitude?

- A) 40 to 60° N
- B) 40 to 60° S**
- C) 20 to 60° S
- D) 40 to 50° S

Explanation

The Antarctic circumpolar current flows between 40 to 60° S latitude. It flows from west to east influenced by the westerly and circles around entire Antarctica. There is a counter west ward current within this circum polar current.

233. Find out the incorrect statement about Southern Ocean

1. The southern ocean surrounds the continent of Antarctica.
2. The large oceans, the Pacific, the Atlantic and the Indian Ocean merge into this circum global zone of water to their north

- A) 1 only
- B) 2 only**
- C) Both 1 & 2
- D) Neither 1 nor 2

Explanation

The southern ocean surrounds the continent of Antarctica. The large oceans, the Pacific, the Atlantic and the Indian Ocean merge into this circum global zone of water to their south

234. Find out the correct statement about Southern Ocean

- 1. The movement of water in the southern ocean is in one sense a relatively simple
- 2. West-east circum polar drift caused under the influence of northwesterly winds.
- 3. This general flow sends offshoots to the two major oceans to its south

- A) 1, 2**
- B) 2, 3
- C) 1, 2, 3
- D) 1, 3

Explanation

The movement of water in the southern ocean is in one sense a relatively simple, generally west-east circum polar drift caused under the influence of northwesterly winds. This general flow sends offshoots to the three major oceans to its north

235. Which of the following is receiving part of its cold water from Southern Ocean

- 1. The Peru or Humboldt Current in the Pacific Ocean
- 2. The Falkland Current and the Benguela Current in the Atlantic Ocean and
- 3. The West Australian Current in the India Ocean

- A) 1, 2**
- B) 2, 3
- C) 1, 3
- D) 1, 2, 3

236. Which of the following are significance of Ocean Currents

- 1. Ocean currents play important role in earth's climate
- 2. Fog is formed when cold current and warm current meets
- 3. Cold ocean current increases the temperature of the area
- 4. Warm ocean current decreases the temperature of the area

- A) 1, 2**
- B) 2, 3

- C) 3, 4
- D) 1, 2, 3, 4

Explanation

Warm ocean current increases the temperature of the area. Cold ocean current decreases the temperature of the area

237. Find out the incorrect statement

1. Warm current brings the heavy rainfall when wind blows over it becomes warm
 2. Cold current brings the drought when the wind blows over it becomes cold and dry
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) **Neither 1 nor 2**

238. Consider the following statements.

Assertion (A): Cold current brings the drought when the wind blows over it becomes cold and dry

Reason (R): The wind blowing over the Peru Current is cold and dry causing the formation of Atacama Desert

Codes:

- A) **Both (A) and (R) are true and (R) is the correct explanation of (A)**
- B) Both (A) and (R) are true but (R) is not the correct explanation of (A)
- C) (A) is true but (R) is false
- D) (A) is false but (R) is true

239. Which of the followings are significance of Ocean Currents

1. It regulates global temperature
 2. It give free navigation
 3. The gulf streams keeps ports & harbors of Russia and Scandinavia navigable throughout the year
 4. The Kuroshio currents makes ports in Japan navigable during the winter
 5. It distributes minerals
- A) 1, 4, 5
 - B) 1, 2, 3, 4
 - C) 1, 3, 4, 5
 - D) **1, 2, 3, 4, 5**

240. Find out the correct statements

1. Major fishing banks are present where cold and warm current meets
2. Some upwelling and down welling are due to pressure variation which brings minerals to photic zone by Phytoplankton

- A) 1 only
B) 2 only
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Some upwelling and down welling are due to currents which brings minerals to photic zone by Phytoplankton

241. Match the following

- | | |
|---------------------|--|
| a) The Grand bank | - 1. Atlantic Ocean Western Europe |
| b) The Agulhas bank | - 2. Atlantic Ocean, South West Africa |
| c) The Dogger Bank | - 3. Atlantic Ocean, North east of N.A |
| d) The Pedro bank | - 4. India Ocean |

- A) 1, 2, 3, 4
B) 2, 3, 4, 1
C) 3, 4, 1, 2
D) 4, 3, 2, 1

242. The reed bank located in

- A) South China Sea and Arctic Ocean
B) Arctic Ocean and Caspian Sea
C) **South China Sea and Pacific Ocean**
D) Dead Sea and Southern Ocean

Explanation

Kuroshio warm current and oyashio cold current meets together where reed bank is located

243. Which of the following is incorrectly matched

- | | |
|---------------------|--|
| 1. The Grand bank | - Gulf Stream and Labrador Current |
| 2. The Agulhas bank | - Benguela cold current and Agulhas warm current |
| 3. The Dogger Bank | - North Atlantic drift and canary cold current |
| 4. The Pedro bank | - South Equatorial warm current and W. Australian cold current |

- A) 2, 3
B) 1, 4
C) All the above

D) None of the above

Explanation

S. No.	World's Fishing banks	Confluence of ocean currents
1.	The Grand bank (Atlantic Ocean, Western Europe)	Gulf Stream and Labrador current
2.	The Agulhas bank (Atlantic Ocean, South west Africa)	Benguela cold current and Agulhas warm current
3.	The Dogger bank (Atlantic Ocean, North east of N.A)	North Atlantic drift and canary cold current
4.	The Reed bank (South China Sea, Pacific Ocean)	Kuroshio Warm current and Oyashio Cold Current
5.	The Pedro bank (India Ocean)	South Equatorial warm current and W. Australian cold current

244. El Nino phenomenon occurs every ----- years

- A) 2 – 5
- B) 3 – 7
- C) 2 – 7
- D) 1 – 6

Explanation

El Nino is a phenomenon that occurs in the equatorial Pacific Ocean.

245. Find out the correct statement

- 1. El Nino is characterized by a positive sea surface temperature departure from normal (1971-2000 base period)
 - 2. El Nino is occurred in the region lying within the latitude 10°N to 10°S and longitudes 120° W to 170°W
- A) 1 only
 - B) 2 only
 - C) Both 1 & 2
 - D) Neither 1 nor 2

Explanation

El Nino is a phenomenon that occurs in the equatorial Pacific Ocean characterized by a positive sea surface temperature departure from normal (1971-2000 base period) in the region lying within the latitude 5°N to 5°S and longitudes 120° W to 170°W.

246. El Nino happens when

1. The increase in temperature is sustained for a period of eighteen months to Three years.
 2. The temperature increase is up to 10 m beneath the ocean surface.
 3. When there is a modified horizontal air circulation above the Pacific Ocean
- A) 1, 2
B) 2, 3
C) All the above
D) **None of the above**

Explanation

When there is a modified vertical air circulation above the Pacific Ocean. The increase in temperature is sustained for a period of eighteen months to Two years. The temperature increase is up to 30 m beneath the ocean surface.

247. Sea surface temperature increases between the central and eastern equatorial Pacific Ocean between the Country

- A) England and the International Date Line
B) Europe and the International Date Line
C) **Ecuador and the International Date Line**
D) None of the above

248. Which of the followings are effects of El Nino

1. El Nino effect is experienced at Global level.
 2. The change in air circulation affects the economy of different countries also.
 3. El Nino does not influences the jet streams.
- A) 1, 3
B) 2, 3
C) **1, 2**
D) 1, 2, 3

Explanation

El Nino effect is experienced at Global level. The change in air circulation affects the economy of different countries also. Global weather patterns are altered to such an extent that they affect eco system, agriculture, tropical cyclone, drought, forest fire, floods and flood related health hazards. El Nino influences the jet streams.

249. Due to El Nino

1. California experiences lesser rainfall,

2. Southern Europe experiences dry winter,
 3. Northern Europe experiences mild wet winters
 4. Heavy rain in East Africa.
- A) 1, 2, 3
B) 3 only
C) 4 only
D) None of the above

Explanation

Due to this phenomenon California experiences heavy rainfall, northern Europe experiences dry winter, Southern Europe experiences mild wet winters, and heavy rain in East Africa.

250. Due to El Nino less number of cyclones in Sea of _____?

- A) Ecuador
B) Japan
C) South Africa
D) Australia

251. South East Asia experiences _____ due to El Nino

1. Severe drought
 2. Flood
 3. Rainfall
 4. Forest fire
- A) 1, 2
B) 2, 3
C) 3, 4
D) 4, 1

Explanation

South East Asia experiences severe drought and forest fire. Peru in South America receives heavy rainfall during El Nino.

252. Find out the incorrect statement about El Nino

- A) Increase of temperature in the central Pacific Ocean is correlated with normal monsoon conditions in India
B) While the increase of temperature in the east Pacific has high correlation with drought conditions in India.
C) When temperature increases further to the west it suppresses the Indian Monsoon.
D) A and B

Explanation

Increase of temperature in the east Pacific Ocean is correlated with normal monsoon conditions in India while the increase of temperature in the central Pacific has high correlation with drought conditions in India. When temperature increases further to the west it suppresses the Indian Monsoon.

253. When trade winds are strong, colder water up wells on the_____?

- A) West Pacific Ocean
- B) North Pacific Ocean
- C) South Pacific Ocean
- D) East Pacific Ocean**

Explanation

When trade winds are strong, colder water up wells on the East Pacific Ocean, air circulation is confined to the west Pacific

254. Find out the correct statement

- A) La Nina is just the opposite to the condition of El Nino**
- B) Due to La Nina dry condition in Southeast Asia
- C) Due to La Nina wet weather in South America is observed.
- D) B and C

Explanation

Due to La Nina wet condition in Southeast Asia and dry weather in South America is observed

255. The difference in the atmospheric pressure between the west and east tropical Southern Pacific Ocean is referred as_____?

- A) Southern oscillation**
- B) Northern oscillation
- C) Eastern oscillation
- D) Western oscillation

256. Link between Southern Oscillation and occurrences of El Nino and La Nina events is___?

- A) ELSO
- B) NESO
- C) ENSO**
- D) LESO

Explanation

Meteorologists have established a close inter link between Southern Oscillation and occurrences of El Nino and La Nina events. The acronym 'ENSO' (El Nino Southern Oscillation) is often used to study both the phenomena.

257. IRICPC stands for

- A) International Research Information Climate Prediction Center
- B) International Research Institute Climate Prediction Council
- C) International Research Institute Climate Preparation Center
- D) **International Research Institute Climate Prediction Center**

Explanation

International Research Institute Climate Prediction Centre predicts and forecasts El Nino occurrences. Scientists are in the opinion that El Nino can cause Global Warming and it also increases the frequency of El Nino occurrence.

258. Find out the correct statement

- 1. El Nino meaning 'little boy' or 'New born Christ'
 - 2. La Nina meaning 'Little girl'
- A) 1 only
 - B) 2 only
 - C) **Both 1 & 2**
 - D) Neither 1 nor 2

Explanation

Peruvian fishermen named the weather phenomenon El Nino meaning 'little boy' or 'New born Christ' and La Nina meaning 'Little girl' as the phenomenon was first noticed during Christmas time.

259. Find out the correct statement

- 1) Thermohaline circulation is a large scale churning of ocean water due to difference in temperature and pressure
 - 2) The upwelling of ocean water occurs in the extreme ends of Atlantic Ocean.
 - 3) Down welling of cold water occurs in the North Pacific Ocean and in the Indian Ocean.
- A) 1, 3
 - B) 2, 3
 - C) All the above
 - D) **None of the above**

Explanation

Thermohaline circulation is a large scale churning of ocean water due to difference in temperature and salinity. The down welling of ocean water occurs in the extreme ends of Atlantic Ocean one near the Norwegian coast and another at Weddell Sea. Upwelling of cold water occurs in the North Pacific Ocean and in the Indian Ocean.

260. Find out the correct statement about conveyor belt

1. Conveyor belt provides a stabilizing effect on climate of the earth.
 2. If it is disturbed, it is capable of causing sudden climatic change within the period of a few decades.
- A) 1
B) 2
C) None of the above
D) 1, 2, 3

Explanation

The slow, steady and three dimensional flow of water in the conveyor belt distributes dissolved gases and solids, mixes nutrients and carries it to various ocean basins.

261. ____ is area between the continental slope and the sea floor.

- A) Abyssal plains
B) **Continental rise**
C) Permafrost
D) None of the above

262. Find out the incorrect statement

- 1) Swell is a type of wind-generated waves that is not affected by the local wind
 - 2) Hotspot is an area, crust from where rocks melt and magma rises through circular to form volcano
- A) 1 only
B) **2 only**
C) Both 1 & 2
D) Neither 1 nor 2

Explanation

Hot spot: An area is the mantle from where rocks melt and magma rises through circular to form volcano.

263. Consider the following statement, that happen during normal situation

- (A) Heavy rain is experienced in the western warmer region and dry conditions prevail in the cooler region.
- (B) The Southeast Asia and America receive heavy rain on normal years.
- (C) East coast of South America experiences dry weather.
- (D) B and C

Explanation

Heavy rain is experienced in the western warmer region and dry conditions prevail in the cooler region. The Southeast Asia and Australia receive heavy rain on normal years. West coast of South America experiences dry weather.

264. If the conveyor belt is disturbed, it is capable of causing sudden climatic change within___ years?

- (A) 20
- (B) 15
- (C) 10
- (D) 25

Explanation

If it is disturbed, it is capable of causing sudden climatic change within the period of a few decades. The conveyor belt is a simplified version of actual circulation in the oceans.

265. Which of the following statements are correct that happen during El Nina

- 1) Near equator the warm water in the Pacific Ocean extends from western side to eastern side suppressing the upwelling of the cold water.
 - 2) Air (Walker) circulation is dominant in the eastern part of Pacific Ocean.
 - 3) The air ascends in the warm eastern Pacific Ocean.
- (A) 1, 2
 - (B) 2, 3
 - (C) 1, 2, 3
 - (D) 1, 3

Explanation

Normal Situation	El Nino Situation
➤ Near equator the water of the Pacific Ocean is warmer in the western side and cooler in the eastern side due to upwelling of the cold current. ➤ Air (Walker) circulation is dominant in the western Pacific Ocean. The air ascends in the western side and descends over the cooler eastern side ➤ Heavy rain is experienced in the western warmer region and dry conditions prevail in the cooler region. ➤ The Southeast Asia and Australia receive heavy rain on normal years. ➤ West coast of South America experiences dry weather.	➤ Near equator the warm water in the Pacific Ocean extends from western side to eastern side suppressing the upwelling of the cold water. ➤ Air (Walker) circulation is dominant in the eastern part of Pacific Ocean. The air ascends in the warm eastern Pacific Ocean. ➤ Heavy rain is experienced in the eastern warmer region and dry condition prevails in the western part. ➤ Southeast Asia and Australia experience dry weather conditions. ➤ West coast of South America receives heavy rainfall.