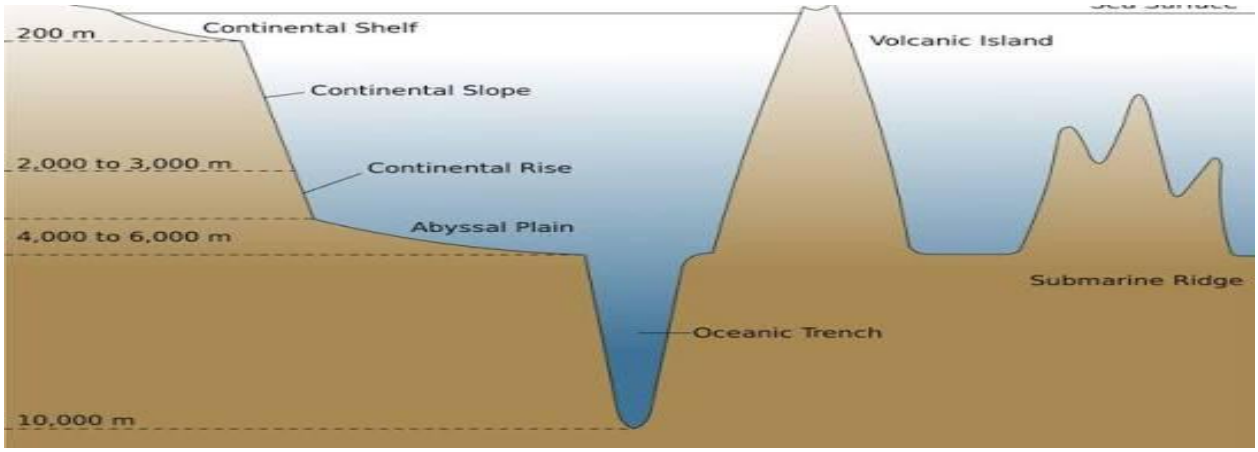
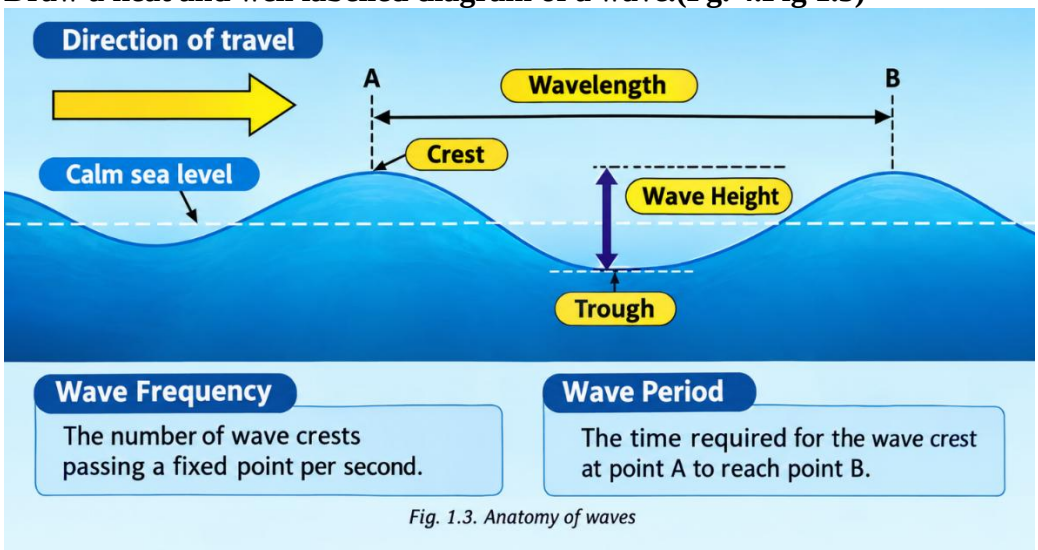
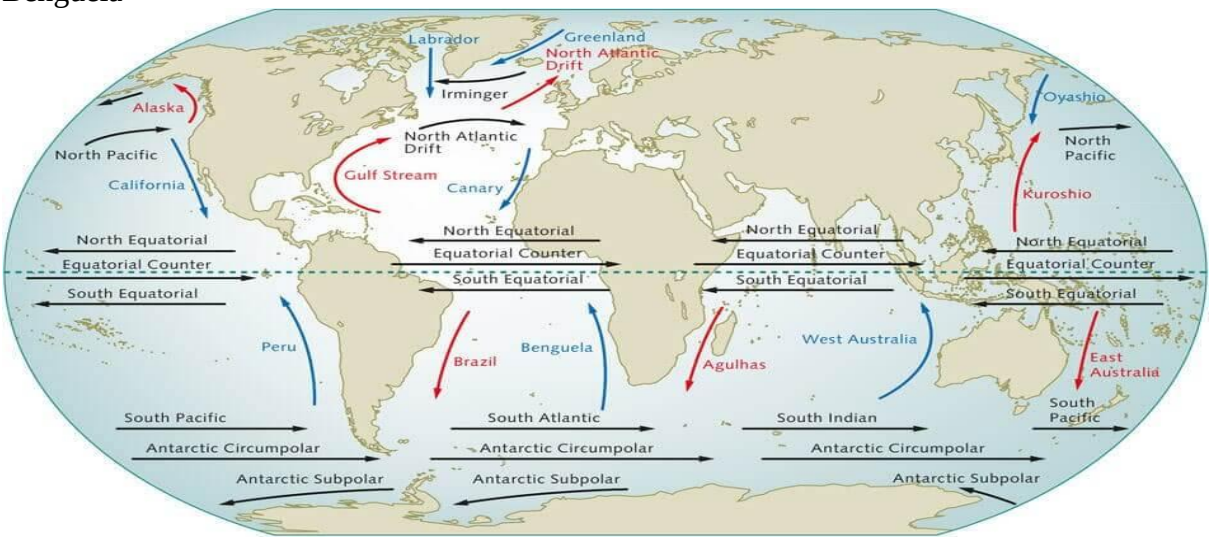
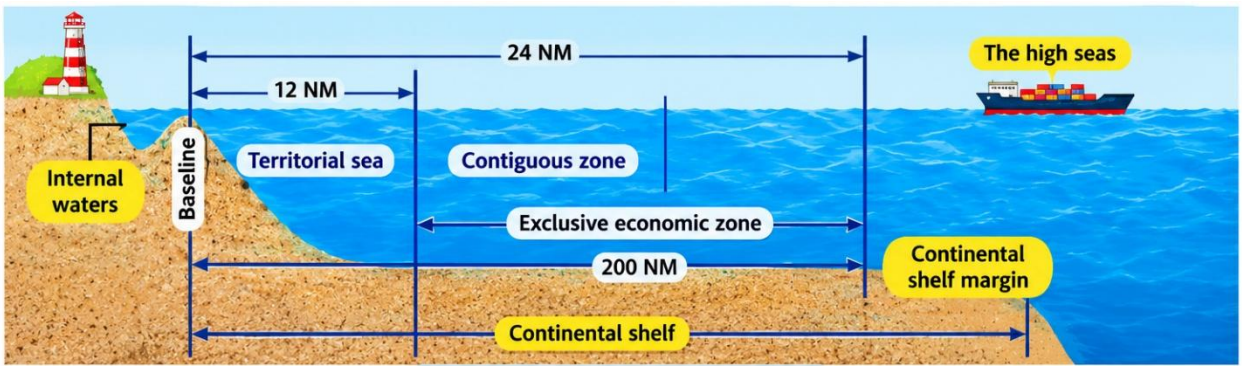
INDIAN SCHOOL AL WADI AL KABIR

Class: IX	**Department: SOCIAL SCIENCE**	**Subject: Geography**
Chapter 1 (Part 2) **Question Bank :3**	**Topic: Oceans and Life**	**Year :2026-27**

Q 1	**Differentiate between a continental shelf and a continental slope.** Continental Shelf: The shallow, submerged edge of a continent that is rich in marine life and resources such as oil and gas. Continental Slope: The steep slope that marks the true edge of a continent and descends towards the deep ocean floor.
Q 2	**What are seamounts and guyots?** Seamounts: Underwater mountains, usually of volcanic origin, that do not reach the sea surface. Guyots: Flat-topped underwater mountains that generally form when the summits of seamounts are eroded and later submerged.
Q 3	**What are spring tides? When do they occur?** Spring tides occur when the Sun, Earth and Moon are aligned in a straight line. They occur during the full moon and new moon phases, producing unusually high tides and unusually low tides.
Q 4	**What are neap tides? When do they occur?** Neap tides occur when the difference between high and low tide levels becomes smaller. They occur during the first-quarter and third-quarter phases of the Moon.
Q 5	**What is meant by the Blue Economy?** The Blue Economy refers to the sustainable use of ocean resources to promote economic growth, improve livelihoods and create jobs while preserving the health of marine ecosystems.
Q 6	**Explain how waves shape coastal landforms.** i) Waves erode coastal rocks through hydraulic action and abrasion. ii) Continued erosion can create cracks, sea caves, arches, sea stacks and stumps. iii) Waves also transport and deposit sediments, forming depositional features such as beaches.
Q 7	**Differentiate between warm currents and cold currents, giving one example of each.** a) Warm currents carry water from warmer regions and can raise the temperature of nearby coastal areas. These bring heavy rainfall in the coastal areas. The Gulf Stream is an example. b) Cold currents carry water from colder regions and can lower the temperature of nearby coastal areas. The Labrador Current is an example. These currents influence regional climates and marine environments and are normally do not bring any rainfall.
Q 8	**Explain the importance of early warning systems in reducing the impact of cyclones and tsunamis.** i) They use technologies such as seismic sensors, satellites and monitoring instruments to detect hazards. ii) They provide timely warnings to governments, officials and coastal communities. iii) These warnings allow people to evacuate, prepare emergency measures and reduce loss of life.
Q 9	**Distinguish between territorial waters and the contiguous zone.** a) Territorial waters: Extend up to 12 nautical miles from the baseline, where the country exercises sovereignty, subject to the right of innocent passage. b) Contiguous zone: Extends up to 24 nautical miles from the baseline. In the contiguous zone, the country exercises limited control over matters such as customs, fiscal regulations and illegal immigration.

Q 10	**Describe the major features of ocean relief and explain their significance.** Ocean relief refers to the physical features of the ocean floor. The major features are: i) Continental Shelf: The shallow, submerged edge of a continent. It is rich in marine life and resources such as oil and gas. ii) Continental Slope: The steep slope marking the true edge of a continent and descending towards the deep ocean floor. iii) Abyssal Plain: A vast, flat and deep region of the ocean floor. iv) Mid-Ocean Ridge: An immense underwater mountain range formed by volcanic activity. v) Ocean Trenches and Seamounts: Trenches are the deepest parts of the ocean, while seamounts are underwater mountains that do not reach the sea surface.
Q 11	**Explain the different types of ocean water movements and their effects on human life and the environment.** The three major types of ocean water movements are waves, tides and currents. i) Waves: Primarily caused by winds, they shape coastlines through erosion and sediment transport. ii) Tides: The rhythmic rise and fall of ocean water, mainly influenced by the gravitational pull of the Moon and the Sun. iii)Ocean Currents: Continuous streams of water flowing in definite directions due to winds, Earth's rotation, differences in temperature and salinity, and the shape of ocean basins. *Impact on Human Activities:* Tides assist navigation, fishing and electricity generation, while currents influence fishing grounds and sea travel. *Environmental Impact:* Waves shape coastal landforms, while ocean currents influence the climate of coastal regions and support marine ecosystems.
Q 12	**Explain five ways in which tides are important or beneficial for human activities.** i) Aids Navigation: High tides raise shoreline water levels for easier port entry. ii) Prevents Grounding: Ships transit shallow channels safely during high tide cycles. iii) Supports Fishing: Fish move shoreward during high tides, increasing commercial catches. iv) Generates Electricity: Rhythmic rise and fall of water powers clean tidal energy. v) Drives Currents: Tidal movements generate strong water circulation in coastal areas.
Q 13	**Explain the different maritime zones and the rights of a coastal country in these zones.** Maritime zones are areas of the ocean defined by international law. i) Territorial Sea: Extends up to 12 nautical miles from the baseline. The country exercises sovereignty over this area, subject to the right of innocent passage. ii) Contiguous Zone: Extends up to 24 nautical miles from the baseline. The country has limited control over customs, fiscal matters and illegal immigration. iii) Exclusive Economic Zone (EEZ): Extends up to 200 nautical miles from the baseline. The country has special rights to use resources such as fish, oil and gas. iv) High Seas: These lie beyond the EEZs of countries and do not belong to any single country. They are considered part of the global commons. v) International Cooperation: The United Nations Convention on the Law of the Sea (UNCLOS) provides an international framework for defining maritime zones and rights.
Q 14	**What are early warning systems? Explain how a tsunami early warning system functions.** Early warning systems detect potential natural hazards, predict their impact and issue timely warnings so that people can take protective action. A tsunami early warning system functions through the following stages: i) Detection: Seismic stations detect undersea earthquakes in real time. ii) Confirmation: Ocean Bottom Pressure Recorders (OBPRs) detect the passage of tsunami waves and help confirm the threat. iii) Tracking: Coastal tide gauges and radars monitor changes in sea level and track tsunami

	waves. iv) Warning: The information is processed and alerts are issued to government agencies and officials. v) Dissemination: Warnings are communicated to the public through SMS, satellite-based communication networks, emails and coastal display boards, enabling timely evacuation.
Q 15	**Explain how the GEMINI device works and its importance for the safety of fishermen.** i) Satellite Link: Receives real-time weather data directly from GAGAN satellites. ii) Bluetooth Transfer: Sends data wirelessly to mobile phones at sea. iii) Multilingual Display: Decodes complex information into nine different regional languages. iv) Hazard Alerting: Warns fishermen about dangerous waves and strong winds. v) Fishing Zone Mapping: Provides potential fishing advisories and current speeds.
Q 16	**Explain the importance of international maritime rules, highlighting COLREGs and MARPOL.** **i**) Collision Prevention: COLREGs establish mandatory maritime rules of the road. ii) Pollution Control: MARPOL prohibits harmful industrial ship discharge into the ocean. iii) Trade Security: Keeps global shipping lanes safe and open for international commerce. iv) Conflict Resolution: Laws like UNCLOS peacefully settle ocean boundary disputes. v) Sailor Protection: Standardizes operating safety checks for crews and vessels.
Q17	**Draw a neat and well labelled diagram of the features found in the ocean waters. (Pg2.Fig 1.2)** 
Q 18	**Draw a neat and well labelled diagram of a wave.(Pg. 4.Fig 1.3)**  *Fig. 1.3. Anatomy of waves*

Q19	**Draw and label the following warm and cold ocean currents on the outline map of the world.(Pg.9 Fig.1.9)** **<u>Warm Ocean Currents:</u>** 1) Gulf Stream 2)North Atlantic Drift 3) Kuroshio 4) North Equatorial Current 5) South Equatorial Current 6) East Australian Current **<u>Cold Ocean Currents:</u>** 1) Labrador 2) California 3) Peru 4) Canary 5) West Australian 6) Benguela 
Q20	**Draw a neat and well labelled diagram of maritime zones(Pg.17 Fig 2.0):** 
Q21	**Explain the meaning of the following terms given:** 1. Continental Shelf: The gently sloping, submerged extension of a continent. 2. Abyssal Plain: A broad, nearly flat region of the deep ocean floor. 3. Spring Tide: A tide with a large tidal range, occurring around the new moon and full moon. 4. Neap Tide: A tide with a small tidal range, occurring around the first and third quarter moons. 5. Ocean Currents: Large streams of ocean water flowing in particular directions. 6. Tsunami: A series of long ocean waves caused by the sudden displacement of seawater, often due to an undersea earthquake. 7. Early Warning System: A system that detects potential hazards and provides timely warnings to help people take protective action. 8. Blue Economy: The sustainable use of ocean resources to support economic growth and livelihoods while protecting marine ecosystems. 9. UNCLOS: The United Nations Convention on the Law of the Sea, which establishes the international legal framework for the use of oceans and seas. 10. Exclusive Economic Zone (EEZ): A maritime zone extending up to 200 nautical miles from a coastal state's baseline, where the state has specified rights over natural resources.