

**VIDYARTHI VIGYAN MANTHAN (VVM) 2020-21
National Level Examination (NLE)**

**Indian Contribution and Advancement in Science and Technology (ICAST)
MULTIPLE CHOICE QUESTIONS (SECTION-A) and ONLINE PERSONAL INTERACTION (SECTION-C)**

JUNIOR GROUP (VI, VII & VIII)

OCEANOGRAPHY: PROGRESS AND ACHIEVEMENTS OF INDIA

SUBTOPICS FOR MCQS FROM OCEANOGRAPHY

NO.	SUBTOPICS	SCOPE OF THE SUBTOPIC
1	What is Oceanography	Physical, chemical, biological and geological oceanography. Brief idea about Relief of ocean floor. Meaning of salinity and how changes in salinity can affect marine life. How marine organisms adapt themselves to various depths. Various instruments used in study of ocean traditional and modern including Indian research vessels, satellites, AUVs etc.
2	Marine archaeology in India	Significance of marine archaeology, studies including shipwrecks and ancient submerged ports and cities. For example, Poompuhar, Mahabalipuram, Mul Dwarka, Gulf of Khambat, Somnath, Lakshdweep, Kaveripattinam etc., Courses available in India

SUBTOPICS FOR OPI FROM OCEANOGRAPHY

NO.	SUBTOPICS	SCOPE OF THE SUBTOPIC
1	Indian Antarctic Programme	History, areas of research, research stations, role of various organisations, achievements, challenges, role of technology.
2	Undersea mining	Mining of Polymetallic nodules and gas hydrates by India: Institutions involved, Whereabouts, extraction procedures, feasibility, Mining area allotted to India for mining polymetallic nodules, available metals etc.
3	Mariculture in India	Looking beyond freshwater and brackish water culture, Institutions and technology involved, variety of shellfish and finfish cultured, methodology and role in sustenance of natural stocks.
4	Marine bio-resources for bioactive compounds	Research in India regarding plant and animal resources for extraction of bioactive compounds. For example, marine algae, sponges, crustaceans etc.