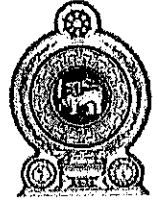




Ocean University of Sri Lanka

Aptitude Test 2023/24

B.Sc. in Oceanography



NIC Number

Index Number:

Time allowed: 2 hours

Date: 03/12/2023

Instructions:

- Attempt all the questions
- There are 4 sections in this test carrying equal weight
- Total questions for each section are indicated at the beginning of the section
- Students may take 30 minutes for each section and spend equal effort to all parts
- Only one answer is allowed for each question
- Underline and fill in blanks are the most appropriate answer
- Use a dark pencil or ball point pen (blue/black) to mark the answers
- No marks will be deducted for wrong answers
- Calculators are not allowed
- Return the question paper along with the answers

SECTION-A: GENERAL KNOWLEDGE – 25 QUESTIONS

Underline the correct answer

- 1) Which category of sports did Lucion Pushparaj become the first ever Sri Lankan to win the world championship in December 2018?
a) Body building b) Wrestling c) Weight lifting d) Karate
- 2) In November 2021 the High Commissioner of India in Sri Lanka, delivered to Dr. Vajira Chitrasena a prestigious award conferred upon her by the President of India for the year 2020. What is the name of this award?
a) Padma Vibhushan b) Padma Shri c) Padma Bhushan d) Bharat Ratna
- 3) In 2022, the Commonwealth marked the 70th anniversary of the accession of the late Queen Elizabeth II to the British throne on 06th of February 1952. This celebration was known as,
a) Diamond jubilee b) Platinum jubilee
c) Golden jubilee d) Sapphire jubilee
- 4) In March 2022, Sri Lanka's largest cement factory, Lanwa Sanstha Cement Corporation (Pvt) Ltd. was declared open. In which of the following Export Processing Zones (EPZ) this factory is located?
a) Mirijjavilla EPZ b) Seethawaka EPZ
c) Mawathagama EPZ d) Polgahawela EPZ
- 5) There are several variants of Corona virus disease 2019 (COVID-19) that have been identified so far. Which one of the following is not among those variants?
a) Alpha b) Beta c) Delta d) Epsilon
- 6) Russia started a major military operation in an Eastern European country in February 2022. What is the name of this country?
a) Poland b) Belarus c) Moldova d) Ukraine

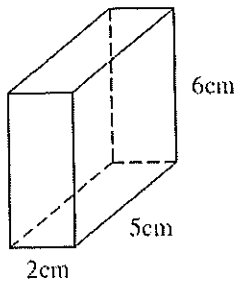
- 7) What is the name of the political movement that formed the government in Afghanistan in August 2021?
 a) Hamas b) Al-Qaeda c) Taliban d) Hezbollah
- 8) Dinesh Priyantha Herath, a Sri Lankan athlete with disability, won the gold medal in the men's javelin throw F46 category with a new world record during a major international sports event held in August 2021. What was this event?
 a) Asian Para Games b) Tokyo Paralympics
 c) Parapan American Games d) Commonwealth Games
- 9) What is the lifetime award presented to authors at the State Literary Awards Ceremony in Sri Lanka for their invaluable service towards the advancement of literature in Sinhala, Tamil or English Languages?
 a) Sahithya Rathna b) Sahithya Sammana
 c) Swarna Pusthaka d) Gratiaen Award
- 10) The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organization of seven South Asian and Southeast Asian nations. The fifth Summit of BIMSTEC was hosted by the Government of Sri Lanka in March 2022. Which one of the following countries is not a member of BIMSTEC?
 a) Pakistan b) Bangladesh c) India d) Nepal
- 11) In July 2019, the World Bank placed Sri Lanka in one of the following income categories based on the country's Gross National Income per capita. Select the correct category
 a) Lower-middle income b) Upper-middle income
 c) Lower-high income d) Average-middle income
- 12) What was the under 19 sports championship that Sri Lanka won in December 2019 in Thailand?
 a) Asian Boys Volleyball championship b) Asian Football Confederation championship (AFC)
 c) Asian Cricket Council championship d) Asia Rugby Division I championship
- 13) In December 2019, India's parliament passed a bill which provides Indian citizenship to immigrants of religious minorities from three neighboring countries. What are those three countries?
 a) Bangladesh, Afghanistan and Sri Lanka b) Pakistan, Bangladesh and Sri Lanka
 c) Bangladesh, Afghanistan and Nepal d) Pakistan, Bangladesh and Afghanistan
- 14) A motor car named Vega EVX, designed and manufactured in Sri Lanka, was officially unveiled in March 2020 at the Geneva International Motor Show 2020 in Switzerland. Vega EVX is a
 a) Hybrid car b) fully-electric supercar
 c) Car runs by hydrogen d) sports utility vehicle (SUV)
- 15) Which Company launches LLaMA model, a research tool more potent than OpenAI's GPT-3?
 a) Apple b) Amazon c) Twitter d) Meta
- 16) The knowledge about the topography of the ocean basins has been derived from _____
 a) Seismic Surveying b) Side-Scan Sonar
 c) Echo Sounder d) All of the above
- 17) Which of the following is the headquarters of World Trade Organisation (WTO)?
 a) Geneva b) Madrid c) New York d) Paris
- 18) The element that is usually extracted from sea water is _____
 a) Ca b) Na c) K d) Mg
- 19) The main percentage of the volume of water in the hydrosphere is in _____
 a) oceans and seas b) glaciers and ice sheets
 c) groundwater's, rivers and streams d) freshwater lakes and water vapors

- 20) World Health Organization identifies first case of MERS-CoV in Which Country 2023?
 a) USA b) UAE c) Japan d) China
- 21) Which among the following is measured using a Vernier Caliper?
 a) Time b) Sound c) Temperature d) Dimensions
- 22) Which coral reef system is also called The Amazon of The Seas?
 a) African Coral Reefs b) Daintree Reef
 c) Coral Triangle d) Darwin Mounds
- 23) Which countries conducted Maritime Partnership Exercise in Bay of Bengal in January 2022?
 a) China and Malaysia b) North Korea and Germany
 c) India and Japan d) Russia and United States
- 24) Who is the current (2022) President of Ukraine?
 a) Boris Johnson b) Viktor Yanukovich
 c) Rinat Akhmetov d) Volodymyr Zelenskyy
- 25) Which is the largest Island Country in the world?
 a) New Guinea b) Sumatra c) Madagascar d) Greenland

SECTION-B: INTELLIGENCE QUOTIENTS TEST – 25 QUESTIONS

Underline the correct answer

- 1) There are 5 machines that make 5 parts in 5 minutes. How long does it take to make 100 parts on 50 machines?
 a) 5 minutes b) 10 minutes c) 15 minutes d) 30 minutes
- 2) In which ratio must water be mixed with milk costing Rs. 12 per litre to obtain a mixture worth of Rs. 8 per liter?
 a) 1:2 b) 2:1 c) 2:3 d) 3:2
- 3) Find out the wrong number in the sequence: 1, 8, 27, 64, 124, 216, 343
 a) 8 b) 27 c) 64 d) 124
- 4) What is the Mass of the solid in the diagram a) 50 g
 if its density is 1.2 g/cm^3 ?



- b) 60 g
 c) 72 g
 d) 38.4 g

- 5) Two people were walking in opposite directions. Both of them walked 6 miles forward then took right and walked 8 miles. How far is each from starting positions?
 a) 14 miles b) 7 miles c) 10 miles d) 6 miles
- 6) To win a 50-over Cricket match the target set is 309 runs. At the end of the 10th over the run rate was 4.5. What is the required minimum run rate in the remaining 40 overs to reach the target?
 a) 6.5 b) 6.6 c) 7.5 d) 7.6

- 13) Two pipes A and B can fill a tank in 15 hours and 20 hours respectively while a third pipe C can empty the full tank in 25 hours. All the three pipes are opened in the beginning. After 10 hours, C is closed. In how much time will the tank be full?
 a) 10 hrs. b) 12 hrs. c) 14 hrs. d) 16 hrs.
- 14) The average age was 27 years of husband, wife and their child 3 years ago and that of wife and the child 5 years ago average age was 20 years. The present age of the husband is
 a) 30 years b) 35 years c) 40 years d) 50 years
- 15) How many bricks, each measuring 25 cm x 11.25 cm x 6 cm, will be needed to build a wall 8 m x 6 m x 22.5 cm?
 a) 5600 b) 6000 c) 6200 d) 6400
- 16) 12 buckets of water to fill a tank when the capacity of each bucket is 13.5 litres. How many buckets will be needed to fill the same tank, if the capacity of each bucket is 9 litres?
 a) 12 b) 18 c) 15 d) 20
- 17) At 3.40, the hour hand and the minute hand of a clock form an angle of
 a) 120° b) 125° c) 130° d) 135°
- 18) A retailer buys a radio for Rs.225. His overhead expenses are Rs.15. He sells the radio for Rs.300. The profit percent of the retailer is _____
 a) 10 b) 20 c) 25 d) 40
- 19) A man rows, downstream 32 km upstream. If he takes 6 hours to cover each distance, then the velocity (in kmph) of the current is _____
 a) 1 b) 1.5 c) 2 d) 2.5
- 20) In how many different ways can the letters of the word 'CREATE' be arranged?
 a) 240 b) 360 c) 480 d) 720
- 21) A can complete a piece of work in 12 days. A and B together can complete the same piece of work in 8 days. In how many days can B alone complete the same piece of work?
 a) 15 days b) 16 days c) 18 days d) 24 days
- 22) In a 100 m race A covers the whole distance in 36 seconds and B in 45 seconds. In this race, A beats B by
 a) 9 m b) 10 m c) 20 m d) 25 m
- 23) The bus fare and train fare of a place from Colombo were Rs. 20 and Rs. 30 respectively. Train fare has been increased by 2% and the bus fare has been increased by 10%. The ratio of new train fare to new bus fare is
 a) 5:3 b) 11:18 c) 18:11 d) 19:13
- 24) The average height of three children is 95 cm. If the heights of 2 children are 97 cm and 92 cm, respectively, the height of the third child is
 a) 92 cm b) 95 cm c) 93 cm d) 96 cm
- 25) A fish has a head 9 inch long. The tail is equal to the size of the head plus one-half the size of the body. The body is the size of the head plus the tail. How long is the fish?
 a) 27 inches b) 63 inches c) 54 inches d) 81 inches

SECTION-C: SUBJECT GENERAL KNOWLEDGE – 25 QUESTIONS

Underline the correct answer

- 1) Instrument used to measure earthquake is known as _____
 a) seismograph b) barometer c) quake meter d) none of the above

- 2) Magnitude of energy released by an earthquake is calculated using
 a) Earthquake scale b) Richter scale c) Seismic scale d) Temblor scale
- 3) Magma which is forced onto Earth's surface is known as
 a) Lava b) Vent c) Cone d) None of the above
- 4) Volcanoes that erupt frequently are known as
 a) Instinct volcanoes b) Active volcanoes
 c) Dormant volcanoes d) Extinct volcanoes
- 5) Water that formed the Earth's oceans came from
 a) degassing of the interior of the Earth through volcanism
 b) comets made of frozen water that melted when they entered Earth's atmosphere
 c) respiration of organic tissue which consumes oxygen and produces water
 d) both a and b are thought to have been sources
- 6) Ocean sediments are thickest at
 a) mid-ocean ridges b) transform faults
 c) intraplate hot-spots d) continental boundaries
- 7) In the lab, if energy is added to liquid water at 100°C
 a) it will produce an increase in temperature
 b) it will be used to break hydrogen bonds and the liquid will change to vapor
 c) nothing will happen because the water is already at boiling temperature
 d) It will force latent heat to be released
- 8) One nautical mile is equal to
 a) 1° of longitude at the poles b) 1 minute of latitude anywhere on Earth
 c) 2.1 statute miles d) 1000 meters
- 9) Which ocean can be found in all longitudes?
 a) Pacific b) Atlantic c) Indian d) Southern
- 10) Which of the following did the Pacific Islanders not use for navigation?
 a) Seawater properties b) The position of stars
 c) Migration paths of birds d) Chronometers
- 11) Lost at sea, we notice that our watch (set to the time at the Prime Meridian) says it's 3:00PM when the sun is directly overhead (local apparent noon). What is our approximate longitude?
 a) 15° W b) 45° W c) 15° E d) 35° E
- 12) What force is responsible for the formation of planets, solar systems, and galaxies?
 a) Coriolis b) Gravity c) van der Waals d) Ionic
- 13) Nuclear fusion in the center of the Sun is responsible for
 a) growth of phytoplankton in the euphotic zone b) Formation of liquid water on the surface of the Earth
 c) formation of carbon atoms d) all of the above
- 14) You are determining the depth of water under your ship with an echosounder. Given that the speed of sound in seawater is 1500 m/s, after a "ping", you wait 10 seconds to hear the echo. How deep is the water?
 a) 1500 m b) 15000 ft c) 15000 m d) 7500 m

- 15) Water from the Pacific Ocean is brought up from 4000 m depth is brought to the surface in a pressure-tight container. When the bottle is opened at the surface, what is a potential observation?
- a) beautiful green color due to living diatoms
 b) suction as CO₂ rushes into the water
 c) fizz as CO₂ escapes to the atmosphere
 d) chunks of ice from depth
- 16) Why is ocean water denser than fresh water?
- a) Ocean water contains more salt than fresh water
 b) Ocean water is deeper than most bodies of fresh water
 c) Ocean water has waves that move the water around
 d) Ocean water contains more organisms than fresh water
- 17) Which statement is not a description of oceans?
- a) Oceans absorb and hold large quantities of solar heat.
 b) Oceans provide the least stable aquatic environment.
 c) Oceans contain a relatively constant supply of nutrient materials and dissolved gases.
 d) Oceans serve as a habitat for a large number of diverse organisms
- 18) Region which surrounds the equator is called _____
- a) tropical zone b) equator c) horizon d) polar region
- 19) If prevailing winds are warm, they may carry _____
- a) moisture b) temperature c) pressure d) speed
- 20) Average weather condition over a long period of time is called _____
- a) climate b) latitude c) longitude d) weather
- 21) Scientists who study the earth's atmosphere have developed _____
- a) physical climate models b) mathematical climate models
 c) conceptual climate models d) aerial climate models
- 22) A rise in sea level near the shore due to strong winds is called _____
- a) swell b) tsunami c) storm surge d) whitecap
- 23) The Gulf Stream carries water currents which are comparatively _____
- a) colder b) warmer c) hottest d) coldest
- 24) The periodic rise and fall of water level and water bodies is regarded as _____
- a) wave b) surf c) tide d) lure
- 25) El Nino may cause _____
- a) mudslides b) floods c) drought d) all of them

SECTION-A: ENGLISH KNOWLEDGE – 25 QUESTIONS

Underline the correctly spelt word

- 1) a) Necessary b) Necessary c) Necessary d) Necessary
 2) a) Coruppt b) Corrupt c) Currupt d) Curropt
 3) a) Satellite b) Satelite c) Sattellite d) Sattellite
 4) a) Millonaire b) Millionare c) Millonare d) Millionaire
 5) a) Drought b) Drougt c) Draut d) Drout

Underline the suitable word to complete the sentences

- 6) I do not think you will gain anything by insulting and _____ the man you do not agree with
- a) enervating b) charging
 c) revamping d) defaming

- 7) You have no business to ___ pain on a weak and poor person.
 a) put b) force c) direct d) inflict
- 8) The salaries and perks of the employees were not in ___ with their status in this industry.
 a) accordance b) capacity c) conformity d) value
- 9) Even more than beauty, youth attracts me and with ___ appeal.
 a) a sententious b) a delectable c) an irresistible d) an ineluctable

Underline synonyms or antonyms of the bold word in sentences

- 10) Mahatma Gandhi said that **compassion** is more important than truth.
 a) Hardihood b) Callousness c) Uncivility d) Violence
- 11) The boy was **punished** and he could not go to play with his friends.
 a) Defended b) Encouraged c) Overcome d) Beaten
- 12) Modern factories have **sprung up** around the city.
 a) Bad b) Fresh c) Small d) New
- 13) I **never** drive to work, I ___ walk.
 a) Always b) Sometimes c) Seldom d) Often
- 14) She was quite **alone** among them.
 a) Only b) Single c) Distant d) Separate
- 15) He holds **extreme** views on education.
 a) Moderate b) Timid c) Casual d) Ordinary

Underline suitable words for Idioms/Phrases underlined

- 16) The cashier wiped the nose of his employer by presenting false bills.
 a) doomed b) abused c) cheated d) slapped
- 17) The captain played with determination because the honour of the team was at stake.
 a) at the top b) appropriate c) very low d) in danger
- 18) An honest person never plays fast and loose with his friends.
 a) delay tactics b) deceives c) to be inconsistent d) ignores
- 19) In the beginning of his career, he was practically rolling in money.
 a) saved lot of money b) wasting a lot of money
 c) very rich d) spending more than his earnings
- 20) Those were only crocodile tears.
 a) very gloomy b) mild regret c) pretended sadness d) a weeping sign

Underline suitable word to substitute for phrases

- 21) The large-scale departure of people
 a) Exodus b) Arrival c) Entrance d) Standing
- 22) A person who is out to destroy government
 a) Atheist b) Anarchist c) Destroyer d) Theist
- 23) Person who looks at the dark side of everything
 a) Naturalism b) Optimist c) Idealist d) Pessimist
- 24) To kill someone for political reasons
 a) Assassination b) Genocide c) Murder d) Homicide
- 25) A book containing summarized information on all branches of knowledge
 a) Anthology b) Dictionary c) Directory d) Encyclopaedia

-----End of the Paper-----