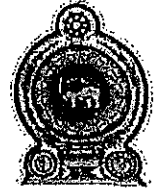




Ocean University of Sri Lanka

Aptitude Test 2024/25

B.Sc in Oceanography



NIC Number

Index Number

Time Allowed: 2 hours

Date: 27/10/2024

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

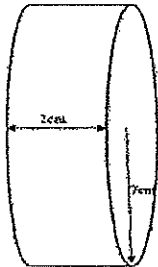
- 01) Who won the men's 100 m Olympic medal in 2024?
a) Noah Lyles b) Julien Alfred c) Kishane Thompson d) Divine Ithem
- 02) The Independence Day of Sri Lanka is observed annually on 4th February. In which year was the 75th Independence Day celebrated?
a) 2023 b) 2018 c) 2017 d) 2022
- 03) The day which was proclaimed as the International Day of Education by a resolution adopted by the United Nations General Assembly in December 2018 is,
a) 25th January b) 24th February c) 23rd January d) 24th January
- 04) 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) Saraswatisammana b) Sahityasammana c) Sahithyaratna d) Swarnapusthaka
- 05) Which country has the highest life expectancy in the world?
a) Monaco b) Japan c) China d) Macau
- 06) Who won the highest number of Olympic medals in 2024?
a) Yufei Zhang b) Batum-Nicolas c) Kylian Mbappe d) Yulimar Rojas
- 07) Which country won the highest medal in Olympic Games in 2024?
a) China b) Japan c) United States d) Australia

- 08) Who was the Ancient Greek God of the Sun?
 a) Jupiter b) Apollo c) Atgo d) Ares
- 09) What is the world's largest retailer with a 2023 retail revenue of \$635.0 billion?
 a) Market Basket b) Walmart c) CVS Pharmacy d) Keels
- 10) Who was the winner of one day international (ODI) cricket champions in 2024?
 a) South Africa b) India c) England d) Australia
- 11) Which famous historical document begins with the words "We hold these truths to be self-evident"?
 a) The Declaration of Independence b) Law of the Sea Convention c) Labour law d) Maritime law
- 12) In which country would you find Mount Kilimanjaro?
 a) Tanzania b) Kenya c) Iran d) India
- 13) In 28th December 1998, India and Sri Lanka has signed historical agreement for commercial relation between two countries. What is the name of the agreement?
 a) Free Trade Agreement (ISFTA) b) Preferential Trade Agreement (PTA) c) Economic Partnership Agreements (EPA) d) Economic Cooperation Agreement (ECA)
- 14) Where is Angel Falls, the world's largest waterfall, located?
 a) Venezuela b) Peru c) Brazil d) Chile
- 15) How many stars are on the Chinese flag?
 a) 8 b) 6 c) 5 d) 7
- 16) Which is the only sea without any coastlines?
 a) Sargasso Sea b) Mediterranean Sea c) Red Sea d) Dead sea
- 17) What is the process by which plants convert sunlight to energy?
 a) Digesting b) Photosynthesis c) Solar energy d) Conversion
- 18) What is the scientific theory that explains the origin of the universe?
 a) Universal Law Gravitation b) Drift theory c) Big Bang Theory d) Atomic theory
- 19) Which is the only body part that is fully grown from birth?
 a) Nose b) Ears c) Brain d) Eyes
- 20) What year was the United Nations established?
 a) 1952 b) 1945 c) 1965 d) 1940
- 21) What is the process by which some animals produce light called?
 a) Illuminator b) Light emitter c) Bioluminescence d) Lighter
- 22) Who was the first woman to win a Nobel Prize?
 a) Lise Meitner b) Marie Curie c) Chien-Shiung Wu d) Rene Joliot-Curie
- 23) How many member states are in Indian Ocean Rim Association (IORA)
 a) 12 b) 18 c) 23 d) 24
- 24) Which country is credited with inventing ice cream?
 a) Japan b) United States c) Sri Lanka d) China

- 25) Which is the smallest country in the world?
 a) Vatican City b) Monaco c) Tuvalu d) Nauru

SECTION-B: INTELLIGENCE QUOTIENTS TEST – 25 QUESTIONS
Underline the correct answer

- 01) The store reduces the price of one product by 25%. How many percent do you need to raise to the percentage to get the original price?
 a) 25 b) 33.33 c) 30.33 d) 20
- 02) What number should come next in this series 12, 11, 13, 12, 14, 13, ...
 a) 17 b) 18 c) 15 d) 16
- 03) Find out the missing number in the sequence: 8, 10, 14, 18, ... , 34, 50, 66
 a) 24 b) 26 c) 22 d) 28
- 04) What is the Mass of the solid cylinder if the radius 7 cm width 2 cm and density is 1.25 g/cm³?



- a) 210g b) 225g
 c) 220g d) 230g

- 05) Nimal, Kamal and Amal are three brothers. Nimal is 2 years older than Kamal. Amal is 3 years younger than Kamal, if Amal is 9 years old 2024, what is the age of Nimal in 2021?
 a) 15 years b) 12 years c) 11 years d) 10 years
- 06) To win a 20 over cricket match the target set is 181 runs. At the end of the 12th over the run rate was 8.75. What is the required minimum run rate in the remaining 8 overs to win the match?
 a) 9.7 b) 10.2 c) 8.5 d) 9.5
- 07) A 200 meters long train passing bridge at a speed of 36 km/h, which takes 20 seconds to pass the bridge. What is the length of the bridge?
 a) 180m b) 220m c) 200m d) 250m

- 08) The four diagrams are in a logical sequence



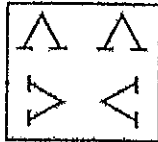
Choose the next diagram accordingly



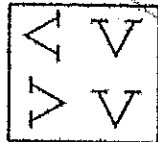
- a) 1 b) 2 c) 3 d) 4

- 09) The boy left the plug out of the bath and are attempting to fill the bath with two taps full on. The small tap takes 6 minutes to fill the bath and the large tap 4 minutes, and the water empties through the plughole in 12 minutes. In how many minutes will the bath be filled?
- a) 1.5 b) 2 c) 3 d) 2.5

- 10) Choose the figure which has a different feature from the rest



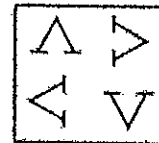
a)



b)



c)

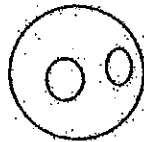


d)

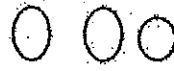
- 11) Which diagram does not contradict the relationship between Teachers, Males and Females?



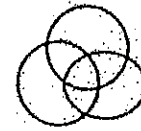
a)



b)



c)



d)

- 12) Select the conceptually most different sequence

- a) Sunday, Monday, Tuesday, Wednesday
 b) 360° , 270° , 180° , 90°
 c) Spring, Summer, Fall, Winter
 d) New moon, First quarter, Full moon, Second quarter

- 13) A lake has three inputs of water. The first, second and third inputs take two days, two and half a days and three days to fill the lake. How long will it take to fill the lake using all 3 inputs at once?

- a) 19 hrs 26 min 24 sec b) 19 hrs 22 min 24 sec c) 19 hrs 26 min 42 sec d) 19 hrs 20 min 22 sec

- 14) Aruna's father was 36 years of age when he was born. Aruna's's mother was 30 years old when his sister, four years younger to him, was born. What is the age difference of his parents?

- a) 3 years b) 1 year c) 2 years d) 4 years

- 15) If Rs. 4500 is deposited in a savings account at 4.5% per annum of simple interest, how much time will it take to yield Rs. 810 as interest?

- a) 3.5 years b) 4 years c) 4.5 years d) 5 years

- 16) The store gave a 40% discount on one item. By how much should the price of the product be increased so that it costs the same as before the markdown?

- a) 30% b) 25% c) 35% d) 40%

- 17) A rectangular piece of paper is folded in half six times. Two holes were made in the middle of the folded sheet. How many holes will be on the sheet if it is then laid out?

- a) 128 b) 126 c) 130 d) 132

- 18) A retailer buys a radio for Rs.750. His expense for this purchasing is Rs.150. He sells the radio for Rs.1000. What is the percent of the business?

- a) 10 b) 12 c) 11.11 d) 10.5

- 19) Sunil travelled from a city to another in 3 hours. He travelled $\frac{1}{3}$ of the distance at the rate of 20 m/s and $\frac{2}{3}$ at the rate of 30 m/s. Find the total distance of the journey in kilometers.
- a) 248 b) 268 c) 288 d) 258
- 20) You are in a race and have overtaken a runner in third place. Where are you now?
- a) 1st place b) 2nd place c) 3rd place d) 4th place
- 21) A can complete a piece of work in 12 days and B can complete the same work within 8 days. How many days will it take to complete the same work together A and B?
- a) 4.8 days b) 5.2 days c) 5 days d) 5.4 days
- 22) The students in the Biological Science., Physical Science and Technology streams are in the ratio of 5:4:4. University plans to increase the number of students by 40%, 50% and 25% respectively. What will be the new ratio?
- a) 7 : 6 : 1 b) 7 : 6 : 5 c) 7 : 5 : 3 d) 7:5:4
- 23) The bus fare and train fare of a place from Colombo were Rs. 10 and Rs. 30 respectively. If the train fare and bus fare have been increased by 1:3 ratio, what is the new ratio of train fare to bus fare?
- a) 1:3 b) 11:36 c) 1:8 d) 19:13
- 24) A military group deciphered the message GPMMPX as FOLLOW. How would they cipher the word ATTACK?
- a) BDDDBUL b) FDIKTR c) BUUBDL d) LDDLBU
- 25) If BACKED is coded as 7 4 1 2 8 6 and HABIT as 9 4 7 3 5, then how would DETACHED be coded accordingly?
- a) 6 8 3 5 1 9 8 6 b) 6 8 4 5 1 9 8 6 c) 6 8 5 4 1 9 8 6 d) 6 8 5 3 1 9 8 6

SECTION-C: SUBJECT GENERAL KNOWLEDGE – 25 QUESTIONS

Underline the correct answer

- 01) What is the reason for greater salinity in the Arabian Sea in comparison to the salinity of Bay of Bengal?
- a) High freshwater input b) High Evaporation c) Mixing processes d) Ice formation
- 02) What are the most important seawater properties?
- a) pH and Chlorophyll b) Viscosity and Tension c) Shear and density d) temperature and salinity
- 03) What is the primary driving force of surface currents?
- a) Density b) Temperature c) Wind d) Salinity
- 04) What is process called high nutrient bottom water brings to surface?
- a) Ocean acidification b) Upwelling c) Downwelling d) Mixing
- 05) Oxygen transfer to deep Ocean by,
- a) Downwelling b) Thermohaline circulation c) Internal waves d) Gravity waves
- 06) Thinnest Ocean sediments are found at,
- a) Mid-ocean ridges b) Bengal Fan c) Continental margins d) Atlantic Ocean
- 07) What is the most famous deep sea mineral occurrences?

- a) Ilmenite deposits b) Manganese nodules c) Clay minerals d) Phosphorite deposits
- 08) Where does source come for manganese nodules formation?
 a) Earthquakes b) Seafloor erosion c) Volcanic eruptions d) River discharge
- 09) Who discovered Gulf Stream?
 a) Vasco da Gama b) Charles Darwin c) Benjamin Franklin d) Melson Stommel
- 10) Where is the location of world-famous beach sand deposit in Sri Lanka?
 a) Pulmudai b) Vakare c) Panama d) Beruwala
- 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 is the tide generating force?
 a) Coriolis b) Gravity c) Tension d) Wind
- 13) What are the major sources of Ocean energy extraction around Sri Lanka?
 a) Wind, wave, tidal c) Wind, wave, Ocean thermal energy
 b) Wind, wave, hydropower d) all of the above
- 14) Which equipment is used to measure water depth?
 a) Wire drag b) Sextant c) Echosounder d) Side scan sonar
- 15) Organisms that are float in the water column in the Ocean are called,
 a) Benthos b) Plankton c) Nekton d) Fish
- 16) Why is ocean water denser than fresh water?
 a) Ocean water contains more salt than fresh water
 b) Ocean water is deeper that 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) Why is salinity higher in polar regions?
 a) Evaporation b) Freezing c) Mixing d) Circulation
- 19) What scale is used to measure sea state?
 a) Synoptic scale b) Mohs scale c) Richter scale d) Beaufort scale
- 20) What are the key nutrients in seawater that support marine life?
 a) NO_3^- , PO_4^{3-} , SiO_4^{4-} b) Na^+ , Cl^- , NH_4^+ c) Na^+ , Cl^- , NO_3^- d) Na^+ , Ca^{2+} , NO_3^-
- 21) Scientists who study the ocean-atmosphere have developed
 a) Numerical climate models b) Mathematical climate models
 c) Conceptual climate models d) Ocean atmospheric couple models

- 22) What is the main cause for the climate change?
 a) Fossil fuel burning b) Global warming c) Sea level rise d) El-Nino
- 23) What is the strongest boundary current?
 a) Gulf Stream b) Kuroshio c) Brazil d) Agulhas
- 24) The periodic rise and fall of water level and water bodies in the Ocean is regarded as
 a) Wave b) Surf c) Tide d) Lure
- 25) What is produced in primary productivity in the Ocean?
 a) Carbon dioxide b) Cold, blue light c) Carbohydrates d) Gametes

SECTION-D: ENGLISH KNOWLEDGE – 25 QUESTIONS

PART A – Read the following sentences and underline the best answer from A, B, C, D to complete each of them.

- 01) It is surprising indeed that he has an access _____ all the important leaders of the country.
 a) about b) by c) to d) of
- 02) The trouble originated _____ a petty quarrel.
 a) in b) about c) to d) beside
- 03) He felt very much grateful _____ his boss for the kindness he had shown in granting him leave.
 a) to b) for c) with d) on
- 04) After the treatment, he was relieved _____ the pain.
 a) for b) of c) from d) with
- 05) We judge ourselves by our thought, _____ others judge us by our actions.
 a) when b) because c) whereas d) least

PART B - Underline the option that best expresses the meaning of each of the sentences given below

- 06) We couldn't have cooked lunch if there had been a power cut.
 a) There is a power cut but we were able to cook lunch
 b) There was a power cut so we couldn't cook lunch
 c) There was no power cut so we were able to cook lunch.
 d) Although there was a power cut, we were able to cook lunch
- 07) We enjoyed the picnic despite the bad weather.
 a) We enjoyed the picnic although the weather was bad
 b) We enjoyed the picnic because the weather was bad
 c) We enjoyed the picnic because the weather was fine
 d) Both the picnic and the weather were enjoyable
- 08) This is a matter of no small importance.
 a) This matter is not important
 b) This is a very important matter
 c) This is not a matter of importance
 d) There is a small importance in this matter

- 09) He is lucky to be alive.
- He narrowly escaped from death
 - He is a lucky man
 - He lives happily
 - He is the luckiest man alive
- 10) Not all the information in the report is correct.
- All the information is incorrect
 - All the information is not given
 - All the information is correct
 - Some of the information is correct

PART C - Underline the correct word ending, selecting from those given within brackets.

Cinnamon is mainly used as a flavor. However (11) scien (ce, tific, tifical) evidence proved the (12) medi (cal, cine, cally) value of cinnamon. There is intense (13) compe (tition, titive, tion) for Sri Lankan cinnamon from cassia, a very close substitute. Cassia is produced a large (14) quanti (ty, ties, ties). The (15) botan..... (y, ical, ically) name of cinnamon is *Cinnamomum Zellanicum Blume*.

PART D- Underline the correct word from those given within brackets

- I want to (learn, follow, study) a course in Business English in your institute.
- He (performed, conducted, made) a lecture on Dengue menace.
- Mr. Rajendran (said, talked, expressed) his views clearly.
- We are extremely sorry for the inconvenience (made, done, caused) by us.
- Namal (did, made, gave) an apology to the teacher for his bad behavior.

PART E- Fill in the blanks with the correct form of the verb given in the brackets.

After god created the world he planted a beautiful garden in the east. It was the land of Eden and in it (21) (be) trees bearing the most delicious fruit. God (22)(put) Adam into the garden, " You can eat any fruit that is in the garden. " He told him, but you never (23)(eat) the fruit of the tree of the knowledge of good and evil. Adam (24) (listen) carefully and made up his mind never (25) (touch) the fruit of that tree.