



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकीसंस्थान, तिरुवनंतपुरम्-11
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY
THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION - ACADEMIC SESSION JANUARY 2022

Program: PhD (Health Sciences)

Time:90 Minutes

Max.Marks: 100

(Select the most appropriate answer)
(There are **no negative** marks for wrong answers)

1. The market that has only one player is called
 - a. Oligopoly
 - b. Monopolistic
 - c. Duopoly
 - d. Monopoly
2. Which of the following is not a major contributor to the greenhouse effect?
 - a. Carbon dioxide
 - b. Carbon monoxide
 - c. Chlorofluorocarbons
 - d. Methane gas
3. Complete the sentence with the choice of answer: The criteria internationally accepted to report qualitative research is called the:
 - a. QUALITAN
 - b. COREX
 - c. COREQ
 - d. NViVO
4. Analysis of Variance is a method to compare _____.
 - a. Variances
 - b. Percentages
 - c. Means
 - d. Proportions
5. The design that is most suited to study rare outcomes is
 - a. Cross-sectional
 - b. Cohort
 - c. Case control
 - d. Ecological

- 14 "In Transactional Analysis, 'transaction' means"
- A person affected by a financial transaction
 - Integrating Adult child ego states
 - There is an exchange of money
 - Social interactions
- 15 What is the common name used for National Income?
- Per-capita income
 - Income from the Exports
 - GDP
 - Household Income
- 16 Health expenditure by a government agency is considered
- Private expenditure on health
 - Public expenditure on health
 - For-profit expenditure on health
 - Bilateral expenditure on health
- 17 "In testing an association between an exposure variable and outcome variable, causality is strongly suggested by all the following, except:"
- Evidence from cross-sectional studies
 - A large odds ratio
 - Consistent association in many studies
 - Presence of a dose response relationship
- 18 Crude birth rate of a population is expressed as per _____
- million
 - thousand
 - hundred
 - generation
- 19 What would you call a research method that used in-depth interviews in the community to identify the ways of categorizing illnesses and then subsequently used a survey to understand the extent to which that illness category prevail in the community?
- Qualitative approach
 - Quantitative approach
 - Qual-Quan approach
 - Mixed methods approach
- 20 Absolute zero exists in
- Ordinal scale
 - Ratio scale
 - Nominal scale
 - Ratio scale
- 21 Probability of a positive test in persons who actually have the disease is called
- Specificity
 - Sensitivity
 - Predictive accuracy
 - Likelihood ratio

- 30 Complete the sentence with the choice for answer: The analysis in qualitative research follows a tradition that is:
- Interpretivist
 - Positivist
 - Empirical
 - Critical
- 31 Who is the author of the book 'The Wealth of Nations'?
- Gunnar Myrdal
 - Adam Smith
 - Amartya Sen
 - John Maynard Keynes
- 32 Which of the following is not a property of a binomial experiment?
- The probabilities of the two outcomes can change from one trial to the next
 - The experiment consists of a sequence of n identical trials
 - Each outcome can be referred to as a success or a failure
 - The trials are independent
- 33 Complete the sentence with the choice of answer: The unit of analysis for focus Group Discussions is:
- the focus group
 - each individual participant
 - the site of the focus group
 - the number of participants in the focus group.
- 34 The main route of transmission of Zika virus is
- Sexual intercourse
 - Airborne transmission
 - Droplet transmission
 - Mosquito bite
- 35 ----- is the leading cause of death from a single infectious agent in the world during the past five years.
- HIV virus
 - Mycobacterium tuberculosis
 - Plasmodium falciparum
 - SARS-CoV-2
- 36 A confidence interval indicates a significant Odds Ratio when
- It includes 0
 - It does not include 1
 - It includes 1
 - It does not include 0
- 37 The incubation period of SARS-CoV-2 virus is
- 1 week
 - 2 weeks
 - 3 weeks
 - 4 weeks
- 38 Which one of the following is required for the absorption of vitamin B12 from small intestine?
- Hephaestin
 - Cobalophilin
 - Hepcidin
 - Na^+ -cotransporter

- 48 The recently concluded declaration (2018) pertaining to primary health care is generally referred to as
- Doha declaration
 - Delhi declaration
 - Colombo declaration
 - Astana declaration
- 49 GRAS substances are those added to food that are,
- Generally responsible for acute sickness
 - Geographically researched and accepted substances
 - Generic ally recognized and accepted substances
 - Generally recognized as safe
- 50 A value of 1 in Gini index represents
- Low inequality
 - Maximum inequality
 - 10% inequality
 - 1% inequality.
- 51 "Two events, A and B, are mutually exclusive and each has a nonzero probability. If event A is known to occur, the probability of the occurrence of event B is "
- One
 - Zero
 - Any positive value
 - Any value between 0 to 1
- 52 Identify the method of data collection which is used in qualitative research.
- Photovoice
 - Questionnaire
 - Likert scale
 - Ratio scale
- 53 Which one of the following human serum immunoglobulins takes part in classical complement fixation pathway?
- IgA
 - IgG
 - IgE
 - IgD
- 54 The 'Theory of diminishing marginal utility' is the basis for
- Theory of Supply
 - Theory of satisfaction
 - Theory of Demand
 - Theory of Price
- 55 Which of the following is NOT one of the 17 Sustainable Development Goals (SDGs) that are the continuum of the 8 Millennium Development Goals (MDGs)?
- Sustainable Cities and Communities
 - "Industry, Innovation and Infrastructure"
 - Good Health and Well Being
 - House and employment for all
- 56 Which one of the following best defines an oncogene?
- "An oncogene never codes for a cell cycle protein, which promotes cell proliferation"
 - Oncogenes are always involved in inherited forms of cancer
 - An oncogene codes for a protein that prevents a cell from undergoing apoptosis
 - An oncogene is a dominantly expressed mutated gene that renders a cell advantageous towards survival.

- 65 In this "see and tell" sequence, what is the next number?: 1, 11, 21, 1211, 111221, _____.
- 312211
 - 1112221
 - 1112222
 - 112131
- 66 At extreme depths in the sea (beyond 170 m depth), divers experience hallucinations, dizziness, tremors etc because of ----- .
- hyperventilation
 - decompression sickness
 - high-pressure neurological syndrome
 - diving reflex
- 67 Which is the primary stress hormone
- cortisol
 - aldosterone
 - adrenaline
 - noradrenaline
- 68 Name a plastic-degrading systems
- PETase
 - ACE
 - MHETase
 - both 1 & 3
- 69 SARS-CoV-2 spike protein is a
- surface glycoprotein
 - small envelope protein
 - nucleocapsid protein
 - matrix protein
- 70 Covishield is a ----- type of vaccine
- whole virion inactivated
 - recombinant, replication-deficient adenovirus vector encoding Spike protein
 - mRNA
 - DNA
- 71 Paralympic Games 2020 was conducted at
- Abu Dhabi
 - Tokyo
 - Rio
 - Beijing
- 72 Nobel Prize for Physics in 2020 was awarded for the discovery of
- cosmology
 - optical tweezers
 - theory for Black hole formation
 - discovery in alloys
- 73 The theory of relativity is presented by which scientist
- Albert Einstein
 - Isaac Newton
 - Stephen Hawking
 - Marie Curie

- 83 Migration of individual cells from the surface into the embryo's interior is termed as
- ingression
 - involution
 - invagination
 - delamination
- 84 Which of the following hormone is detected by pregnancy kits?
- Estrogen
 - Progesterone
 - Human Chorionic Gonadotropin
 - Lutinizing Hormone
- 85 Five persons A, B, C, D, and E are sitting in a row. C in the middle of the group and D is at an extreme end. There are at least two persons between B and E. Which of the following statements is incorrect?
- E can be on extreme left
 - A is always a neighbour of B or D
 - A cannot be on extreme left
 - E can be on extreme right
- 86 Each pixel in a liquid crystal display (LCD) television is composed of 3 sub-pixels that can transmit red, green and blue colours because
- White light is made of three primary colours viz red, green, blue
 - Liquid crystals can only filter these primary colours
 - The human retina contains only three types of colour-sensitive cells
 - These colours are the most pleasing to the human eye.
- 87 The Nobel prize in physiology or medicine 2020 was shared by Harvey J. Alter, Michael Houghton and Charles M. Rice for
- The development of a method for genome editing
 - The discovery of Hepatitis C virus
 - The discoveries of how cells sense and adapt to oxygen availability
 - The discoveries of molecular mechanisms controlling the circadian rhythm
- 88 The first WHO recognized outbreak of Nipah virus was reported in
- Malaysia
 - Bangladesh
 - Singapore
 - India
- 89 Who among the following is a climate campaigner?
- Vergheese Kurien
 - Malala Yousafzai
 - Greta Thunberg
 - Michelle Obama
- 90 The only active volcano of India is located at
- Gujarat
 - Haryana
 - Maharashtra
 - Andaman & Nicobar Islands

99 Which is not an essential amino acid

- a. proline
- b. methionine
- c. valine
- d. lysine

100 Which Indian city has the Drink-from-Tap facility for the first time in India?

- a. Bangalore
- b. Srinagar
- c. Trivandrum
- d. Puri

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Answer Key

Question No.	Correct answer	Question No.	Correct answer	Question No.	Correct answer
1.	D ✓	38.	B ✓	75.	
2.	B ✓	39.	B ✓	76.	
3.	C ✓	40.	B ✓	77.	
4.	C ✓	41.	D ✓	78.	
5.	C ✓	42.	C ✓	79.	
6.	A ✓	43.	B ✓	80.	
7.	D ✓	44.	B ✓	81.	
8.	D ✓	45.	C ✓	82.	
9.	D ✓	46.	D ✓	83.	
10.	C ✓	47.	A ✓	84.	
11.	C ✓	48.	D ✓	85.	
12.	D ✓	49.	D ✓	86.	
13.	C ✓	50.	B ✓	87.	
14.	D ✓	51.	D ✓	88.	
15.	C ✓	52.	A ✓	89.	
16.	B ✓	53.	B ✓	90.	
17.	A ✓	54.	C ✓	91.	
18.	B ✓	55.	D ✓	92.	
19.	D ✓	56.	D ✓	93.	
20.	D ✓ - Prem.	57.	B ✓	94.	
21.	B ✓	58.	B ✓	95.	
22.	A ✓	59.	B ✓	96.	
23.	D ✓	60.	C ✓	97.	
24.	B ✓	61.		98.	
25.	B ✓	62.		99.	
26.	A ✓	63.		100.	
27.	A ✓	64.			
28.	D ✓	65.			
29.	C ✓	66.			
30.	A ✓	67.			
31.	B ✓	68.			
32.	A ✓	69.			
33.	A ✓	70.			
34.	D ✓	71.			
35.	B ✓	72.			
36.	B ✓	73.			
37.	A ✓	74.			

Please do not include Q no 20

Ran. 11/1/22

24/1/22

Q.N. 61 to 100 are with Biological Science

Ran.

24/1/22