

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

ENTRANCE EXAMINATION - ACADEMIC SESSION JANUARY 2019

PROGRAMME: PUBLIC HEALTH

Time: 90 Minutes

Max. Marks: 100

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

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1. Ranjan Gogoi is serving as the _____ Chief Justice of India.
A. 46th
B. 48th
C. 42nd
D. 44th
 2. Nadia Murad won the Nobel prize for:
A. Physics
B. Chemistry
C. Peace
D. Medicine
 3. S-400 'Triumf' is the name of:
A. Missile system.
B. Satellite system
C. Bomber system
D. Ecosystem

4. MiG-21 is:
- A. Fighter jet
 - B. War ship
 - C. Submarine
 - D. Rescue boat
5. Find the correctly spelt word:
- A. Surveillance
 - B. Surveillace
 - C. Survellance
 - D. Survaillance
6. Which among the following is responsible for the health hazards associated with paints/varnish?
- A. Formaldehyde
 - B. Lead
 - C. Cadmium
 - D. Chromium
7. Single disease control programmes are also called
- A. Horizontal health programmes
 - B. Integrated health programmes
 - C. Interventional programmes
 - D. Vertical health programmes
8. A vitamin which is soluble in water:
- A. Vitamin C
 - B. Niacin
 - C. Riboflavin
 - D. All the above

9. Tides are primarily caused by:

- A. Attraction of the moon
- B. Farrel's law
- C. Earth's pressure system
- D. Ocean Currents

10. Primary source of nutrients for plants is:

- A. Sun light
- B. Soil
- C. Chlorophyll
- D. Pesticides

11. Chemical, ionizing agent or virus that can cause birth defects

- A. Teratogenic
- B. Mutagenic
- C. Carcinogenic
- D. Embryogenic

12. Entomology is the scientific study of:

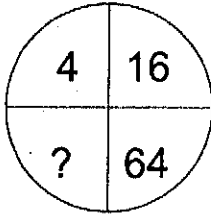
- A. Insects
- B. Formation of Rocks
- C. Scientific Names
- D. Behaviour of Human beings

13. The acronym NFHS used in the surveys for information on maternal and child health in India stand for:

- A. National Fertility and Health Survey
- B. National Family and Household Study
- C. National Family Health Survey
- D. National Farm and Household Survey

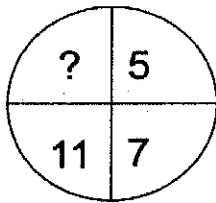
14. The Hathi commission report (1975) was on:
- A. Pharmaceutical industry in India
 - B. Hospitals in India
 - C. Doctors in India
 - D. Nursing in India
15. A disease that spread by contact:
- A. Infectious
 - B. Fatal
 - C. Contagious
 - D. Incurable
16. The ICDS scheme includes the following components, except
- A. Supplementary nutrition for mothers and children
 - B. Growth monitoring
 - C. Ante-natal clinics
 - D. Immunization
17. Gradual changes in the frequency of a disease over a long time period is referred to as:
- A. Secular time trends
 - B. Cyclic fluctuations
 - C. Latency period
 - D. Temporal clustering.

18. Find the missing number in the figure below:



- A. 16
- B. 52
- C. 112
- D. 256

19. Find out the missing number in the figure below



- A. 1
- B. 9
- C. 12
- D. 17

20. Find the odd man out:

- A. Parrot
- B. Vulture
- C. Swan
- D. Sparrow

21. Arrange the following words in the order they appear in the dictionary: 1. Scenery 2. Science 3. Scandal 4. School 5. Scatter.

A. 3,5,1,4,2;

B. 3,5,4,1,2;

C. 5,3,4,2,1;

D. 5,3,2,1,4

22. Complete the following sentences (questions 22-24) by choosing the correct passive forms of the verbs given: The thief _____ yesterday and was prisoned

A. is caught

B. is being caught

C. was caught

D. has been caught

23. A couple of warnings _____ before the storm

A. will have been issued

B. have been issued

C. had been issued

D. has been issued

24. We know that poems _____ these days by you

A. are being composed

B. is being composed

C. have been composed

D. were being composed

25. Find the word which cannot be formed from the letters of the word, 'REPUBLICAN'.

- A. CLIP
- B. PURE
- C. ANKLE
- D. BANE

26. Find the word which cannot be formed from the letters of the word,

'RECOMMENDATION'.

- A. NATION
- B. COMMENT
- C. COMMON
- D. RECOMMENDS

27. If the first day of the year (other than the leap year) was Friday, then which was the last of that year?

- A. Wednesday
- B. Thursday
- C. Friday
- D. Sunday

28. If every second Saturday and all Sundays are holidays in a 30 days month beginning on Saturday, then how many working days are there in that month?

- A. 15
- B. 18
- C. 23
- D. 25

29. The programming language Java was originally developed by:

- A. Oracle
- B. Microsoft
- C. Novell
- D. Sun Microsystems

30. One Terabyte (1 TB) is equal to:

- A. 1028GB
- B. 1012GB
- C. 1000GB
- D. 1024 GB

31. Which operating system is developed and used by Apple Inc?

- A. Windows
- B. Android
- C. IOS
- D. UNIX

32. Pick the odd one out in the following numbers: 13, 23, 33, 43, 53 ?

- A. 23
- B. 33
- C. 43
- D. 53

33. It was calculated that 75 men could complete a piece of work in 20 days. When work was scheduled to commence, it was found necessary to send 25 men to another project. How much longer will it take to complete the work?

- A. 25 days
- B. 30 days
- C. 35 days
- D. 40 days

34. What percentage of numbers from 1 to 70 has 1 or 9 in the unit's digit?

- A. 1
- B. 14
- C. 20
- D. 21

35. REASON : SFBTPO :: THINK : ?

- A. SGHMJ
- B. UIJOL
- C. UHNKI
- D. UJKPM

36. 'Captain' is related to 'Soldier' in the same way as 'Leader' is related to:

- A. Chair
- B. Followers
- C. Party
- D. Minister

37. M has a son Q and a daughter R. He has no other children. E is the mother of P and daughter-in law of M. How is P related to M?
- A. P is the son-in-law of M
 - B. P is the grandchild of M
 - C. P is the daughter-in law of M
 - D. P is the grandfather of M
38. The number that least fits this set: (324, 441, 97 and 64) is _____.
- A. 324
 - B. 441
 - C. 97
 - D. 64
39. It takes 10 s and 15 s, respectively, for two trains travelling at different constant speeds to completely pass a telegraph post. The length of the first train is 120 m and that of the second train is 150 m. The magnitude of the difference in the speeds of the two trains (in m/s) is: _____.
- A. 2.0
 - B. 10.0
 - C. 12.0
 - D. 22.0
40. The sum of two numbers is 25 and their difference is 13. Find their product.
- A. 104
 - B. 114
 - C. 315
 - D. 325

41. Which among the following designs can be considered closest to the counterfactual ideal?

- A. Cross-over trial design
- B. Cross-sectional design
- C. Case control design
- D. Cohort design

42. A factor that is associated with both the exposure and the outcome variables and can masquerade as a risk factor is called

- A. Mediator
- B. Confounder
- C. Comparator
- D. Determinant

43. When a disease is uncommon but testing for the disease is common, one should think of the

- A. Sensitivity
- B. Specificity
- C. False positivity rate
- D. Cronbach's alpha

44. An epidemiological design in which subjects are grouped based on the outcome is

- A. Case control design
- B. Cohort design
- C. Randomized Controlled Trial
- D. Ecological design

45. Choose the INCORRECT combination from among the following:
- A. James Lind: Lime for Scurvy
 - B. Louis Pasteur: Germ theory of disease
 - C. John Snow: Spot map of Cholera
 - D. John Graunt: Surveillance for HIV
46. Common non-fatal conditions that are highly contagious but with fast recovery (e.g. common cold) are likely be of:
- A. High incidence, low prevalence
 - B. Low incidence, high prevalence
 - C. Both situations are possible
 - D. Neither situation is possible
47. Which among the following states has reported the lowest infant mortality rate in the past five years?
- A. Assam
 - B. Uttar Pradesh
 - C. Madhya Pradesh
 - D. Jharkhand
48. The National Health Mission (NHM) was launched in the year
- A. 2017
 - B. 2013
 - C. 2005
 - D. 2002

49. The conditional cash transfer scheme for institutional deliveries is called
- A. Janani Suraksha Yojana
 - B. Rashtriya Bal Swasthya Karyakram
 - C. Pradhan Mantri Matritva Vandana Yojana
 - D. Jawaharlal Nehru National Urban Renewal Mission (JnNURM)
50. For positively skewed distributions, which of the following is true?
- A. Mean=Median
 - B. Mean>Median
 - C. Mode>Median
 - D. Mode=Median
51. Which of the following is a probability distribution for discrete random variables?
- A. Poisson
 - B. Gamma
 - C. Normal
 - D. Beta
52. Which among the following sampling methods cannot be for a random sample?
- A. Convenient sampling
 - B. Cluster Sampling
 - C. Stratified Sampling
 - D. Multi stage Sampling
53. What is the probability of getting 2 heads if you toss an unbiased coin twice?
- A. 0.25
 - B. 0.50
 - C. 0.75
 - D. 1.00

54. What type of variable is 'examination performance' assessed as First class, Second class and Third class?
- A. Nominal
 - B. Ordinal
 - C. Ratio
 - D. Censored
55. Autoregression models are most commonly used for data from _____.
- A. Case-Control Study
 - B. Cross Sectional Survey
 - C. Time Series
 - D. Outbreak Investigation
56. To calculate P value using Fisher's Exact Test, which of the following distribution is applied?
- A. Chi-Squared
 - B. Geometric
 - C. Binomial
 - D. Hypergeometric
57. Age standardization of death rates is done because of the difference in _____ among populations.
- A. Risk of death
 - B. Age-Specific rates
 - C. Age composition
 - D. Sex ratio

58. Expectation of life at birth is calculated from/using _____.
- A. Cox- Regression analysis
 - B. Life tables
 - C. Nutrition tables
 - D. Discriminant analysis
59. The quality of a product is determined by which one of the following
- A. Higher the price higher the quality
 - B. Lower the price higher the quality
 - C. Higher the price lower the quality
 - D. None of the above
60. PERT and CPM are,
- A. Techniques used in costing a project
 - B. To find the resources required in a project
 - C. Network analysis used to analyze a project
 - D. To verify whether the cost of the project and resources are matched
61. Fayol's principle of 'order' means,
- A. People and materials should be in the right place at the right time
 - B. Doing things right
 - C. Employees who are allowed to originate and carry out plans will exert high levels of effort
 - D. Managers should be kind and fair to their subordinates

62. Transactional Analysis is not used in,

- A. Psychotherapy
- B. Organizations
- C. Educational settings
- D. Physiotherapy

63. Staffing is

- A. Interview score
- B. Hiring qualified employee
- C. HR planning
- D. Professional search

64. Context in communication means

- A. A vehicle of sensory perception
- B. Meaning in the communicator's mind into commonly understood set of symbols
- C. Through which the message is delivered
- D. Physical setting, relationship details, culture, and situations all influence the messages

65. "Walking a mile in another person's moccasins" is about,

- A. physical activity
- B. Listening
- C. Empathy
- D. Sympathy

66. Health Inequality is understood as

- A. Differences in the opportunities of different population groups to access things that may affect their health.
- B. Measurable differences in health experience and health outcomes between different population groups.
- C. The differential treatment of individuals depending on their health concern.
- D. The unequal distribution of people with breast cancer compared to other types of cancers.

67. Which of the following is NOT a social determinant of health?

- A. Age
- B. Income
- C. Cultural norms
- D. Social status

68. Differential access to health care as a result of socio-economic status and caste/ethnicity is:

- A. Found only in high income countries.
- B. Unique to the Indian healthcare system.
- C. Non-existent
- D. An almost universal finding

69. Which of the following Millennium Development targets was least successful, as acknowledged by the United Nations?
- A. Achieve, by 2015, universal access to reproductive health
 - B. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate
 - C. Halve, between 1990 and 2015, the proportion of people whose income is less than \$1.25 a day
 - D. Eliminate gender disparity in primary and secondary education
70. Tendulkar Committee report revealed that in 2004-05, India's poverty, which was measured as 27%, was actually 37%. Which among the following was the reason behind these two conflicting measures of poverty in India?
- A. There was a discrepancy in the data's collected at that time
 - B. The new poverty line measures poverty on a wider access to commodity and services like health and education and not calorie
 - C. The calories definition of poverty has been changed by the world Bank.
 - D. The government at that time misled the public on by showing the wrong figures
71. The major source of healthcare financing in India is
- A. RSBY
 - B. Private insurance
 - C. General Taxation
 - D. Out-of-pocket expenditure by households
72. Which of the following is not a sustainable development goal?
- A. Ensure healthy lives and promote wellbeing for all at all ages
 - B. End poverty in all its forms everywhere
 - C. Eliminate racism in all its forms
 - D. Take urgent action to combat climate change and its impacts

73. The prevalence of Multi Drug Resistant Tuberculosis (MDR TB) in the world in 2018 is

- A. 3.5% of general population
- B. 3.5% of new cases of TB
- C. 3.5% of previously treated cases of TB
- D. None of the above

74. Zika virus infection is mainly spread through

- A. Aedes Mosquitos
- B. Anopheline Mosquitoes
- C. Culex mosquitoes
- D. Not a mosquito borne disease

75. Ebola fever is spread by

- A. Fruit bats
- B. Sexual contact
- C. Bush meat
- D. All of the above

76. The most effective measure for malaria control at present is

- A. Seasonal Chemoprevention
- B. Indoor Residual Spray (IRS)
- C. Distribution of Long Lasting Insecticidal Nets (LLIN)
- D. Malaria Vaccine (Mosquirix)

77. The latest coding systems for disease classification is

- A. ICD 10
- B. ICD 12
- C. SNOMED-CT
- D. LONIC

78. The crucial component of the reproducible research is

- A. Data standards
- B. Data sharing
- C. Metadata documentation
- D. All of the above

79. Which one of these countries has not eliminated Malaria in 2018?

- A. Sri Lanka
- B. Myanmar
- C. Turkmenistan
- D. Maldives

80. An epidemic will die out when the reproductive number is:

- A. 1
- B. >1
- C. >1.1
- D. <1

81. About three-quarters of the natural greenhouse effect is due to

- A. Water vapour
- B. CO₂
- C. Ozone
- D. CFC

82. Acid rain is caused by increase in the atmospheric concentration of

- A. Ozone and dust
- B. SO_2 and NO_x
- C. CO_2 and H_2S
- D. CO_2 and CO

83. Excessive use of phosphate and nitrate fertilizers leads to contamination of water and leads to

- A. Increased algal growth
- B. Eutrophication
- C. Reduced algal growth
- D. Increased salinity

84. An example of a secondary pollutant is

- A. Ozone
- B. SO_2
- C. NO_2
- D. CO_2

85. Which constituent of Chlorofluorocarbons (CFCs) contribute to depletion of Ozone

- A. Chlorine
- B. Fluorine
- C. CO_2
- D. CO

86. B.O.D. test or biological oxygen demand test is made for measuring

- A. Air pollution
- B. Water pollution
- C. Noise pollution
- D. Soil pollution

87. Above which of the following intensity does sound becomes a pollutant

- A. 40 db
- B. 80 db
- C. 100 db
- D. 200 db

88. Most surveillance systems use which of the following study designs?

- A. Cohort
- B. Serial cross-sectional
- C. Syndromic
- D. Nested case-control

89. The hallmark feature of an analytic epidemiologic study is: (Choose one best answer)

- A. Use of an appropriate comparison group
- B. Laboratory confirmation of the diagnosis
- C. Publication in a peer-reviewed journal
- D. Statistical analysis using logistic regression

90. A propagated epidemic is usually the result of what type of exposure?

- A. Point source
- B. Continuous common source
- C. Intermittent common source
- D. Person-to-person

91. The following measures are identical whether the test is applied to general practice patients or to the psychiatric outpatients:

- A. Prevalence of depression
- B. Sensitivity
- C. Positive predictive value
- D. Negative predictive value

92. The conclusions of a meta-analysis may be rendered invalid by:

- A. Large effect size
- B. Large number of studies
- C. Small effect size
- D. Statistical and clinical heterogeneity

93. A diagnostic test is 92% sensitive and 94% specific. A test group is comprised of 500 people known to have the disease and 500 people known to be free of the disease.

How many of the known positives would actually test positive?

- A. 460
- B. 500
- C. 492
- D. 470

94. The method of triangulation in qualitative research consists of

- A. Applying the same research method again to obtain clarification
- B. Applying different research methods to examine the same phenomena
- C. Applying the same research method amongst different groups to obtain clarification
- D. Applying the same research method to examining different phenomena

95. Qualitative research approach tends to focus on which specific externality of an observed phenomenon?
- A. Contexts
 - B. Inequities
 - C. Distance from equilibrium
 - D. Inequalities
96. The means used in phenomenology to ensure that the researcher's personal understandings do not bias the description of the essence of the experience is:
- A. confounding
 - B. objectivity
 - C. exclusion
 - D. bracketing out
97. Using one's own cultural values, beliefs and assumptions to study people of another culture is known as:
- A. cultural relativism
 - B. ethnocentrism
 - C. exocentrism
 - D. autocraticism
98. The outsider perspective enables a qualitative researcher to examine a culture –
- A. Without predetermined ideas and enable asking of naïve questions
 - B. With ideas of the culture that come from the lived experience and enable asking of naïve questions
 - C. With ideas that tend to erode one's understanding of the new culture
 - D. Without any idea of culture and context

99. A seminal ethnographic work that described rural caste system in India

- A. The God of small things
- B. Street Corner Society
- C. The Remembered Village
- D. Letters from a Father to his Daughter

100. In medical anthropology, the three sectors of health care are:

- A. Public, private and mixed
- B. Professional, folk and popular
- C. mainstream, indigenous and minority
- D. Allopathic, homeopathic and ayurvedic

