ENTRANCE EXAMINATIONS – 2022

(Ph.D. Admissions July 2022)

PhD Health Sciences (Public Health)

HALL TICKET NUMBER

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE QUESTIONS

INSTRUCTIONS

i) This Booklet has ten (10) pages. Please check the pages.

ii) Write your Hall Ticket Number in the OMR Answer Sheet given to you. Also write the Hall Ticket Number in the space provided above.

iii) There are 2(two) parts in the question paper- Part A (Question Numbers 1-35) and Part B (Question Numbers 36-70).

iv) Each question carries 1 mark and there is no negative marking.

v) Answers are to be marked in the OMR Answer sheet following the instructions provided there upon.

vi) Hand over the OMR answer sheet at the end of the examination to the invigilator.

vii) No additional sheets will be provided. Rough work can be done in the question paper itself/ space provided at the end of the booklet.

PART- A

1. In a coding system 'APPLE' is coded as 'MANGO', find out the code for 'GUAVA'
A. BANANA
B. GRAPES
C. KIWI
D. PEAR

2. Which among the following years did not have 366 days?
A. 1976
B. 1982
C. 2004
D. 2016

3. Find out the next number in the given series 1, 27, 125, _____
A. 216

B. 343
C. 512
D. 720

4. Which of the following is a qualitative variable?
A. Haemoglobin values of the patients
B. Body weight of the patients
C. Heart beat rate of the patients
D. Disease symptoms of the patients

5. Saturday is a day on the 3rd of a month, what day will it be on the 25th of the same month?
A. Sunday
B. Monday
C. Saturday
D. Friday

6. One health triad refers to:
A. Man Women and Child
B. Primary, secondary and tertiary health care
C. Centre, state and rural health programs
D. Agent, Host, Environment

7. The first step in conducting a research is
A. Propounding a hypothesis
B. Data collection
C. Defining a problem
D. Formulation of objectives

8. The gold standard laboratory test used to detect SARS CoV2 infection is:
A. RT-PCR
B. RAT
C. CRP
D. ELISA

9. When the participants in a research study are known but their identifying information is removed from your research article, you are following an ethical consideration referred to as
A. Confidentiality
B. Anonymity
C. Neutrality
D. Plagiarism

10. Body mass index is calculated as:
A. weight in pounds by height in meters
B. weight in kg by height in meters
C. weight in kg divided by square of height in meter squared
D. weight in kg divided by body surface area

11. What is an inoculating loop?
A. A tool used to streak a microorganism in a pure culture
B. A tool used to place agar in a pure medium

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C. A tool used to count colonies of microorganisms
D. A tool used to view colonies of microorganisms

12. What is an enrichment culture?
A. Something that provides growth for all microorganisms
B. Something that inhibits growth for all microorganisms
C. An infectious culture
D. Something that provides growth for a certain microorganism but not for others

13. A genetic marker is
A. a place where a restriction enzyme cuts DNA
B. a chart the traces the family history of a genetic trait
C. a nucleotide sequence near a particular gene
D. a radioactive probe used to find a gene

14. The basic difference between ELISA and RIA lies in
A. primary antibody
B. blocking agent
C. type of microtitre plate
D. label conjugated to secondary antibodies

15. Animal cell culture is quite popular in raising:
A. hormones
B. enzymes
C. bacteria
D. vaccines

16. The following are methods for control of confounding except:
A. Restriction
B. Matching
C. Ensuring use of accurate instruments
D. Stratified analysis

17. All of the following are ethical principles except?
A. Justice
B. Malpractice
C. Beneficence
D. Non-Maleficence

18. The scatter plot is used to depict:
A. Causality
B. Correlation
C. Power
D. Type II error

19. A circle divided into sectors proportional to the frequency of items shown is called:
A. Bar chart
B. Pie chart
C. Frequency polygon
D. Histogram

20. In Qualitative Research, the data is in the form of:
A. Words
B. Numbers
C. Integers
D. Fractions

21. The type of study to find Haemoglobin level pattern among adolescents of age 14 to 19 years of each gender residing in a defined area is called:
A. Pilot Study
B. Observational Study
C. Descriptive Study
D. Analytical Study

22. WHO recommended method of sampling to estimate immunization coverage in developing countries is:
A. Simple Random Sampling
B. Multistage Random Sampling
C. Stratified Random Sampling
D. Cluster Random Sampling

23. Matching in case-control studies is done to control uncertainties due to:
A. Loss of patient to follow up
B. Sampling fluctuation
C. Lack of statistical power
D. Bias arising from confounders

24. Longitudinal studies:
A. Can provide Incidence of Disease
B. Are Economical
C. Are good for studying rare outcomes
D. Are easy to conduct

25. Coefficient of Variation is:
A. Mean/SD
B. SD/Mean
C. Mean/Variance
D. Variance/Mean

26. Which test is the part of the parametric test?
A. Sign Test
B. Run Test for Randomness
C. Kruskal-Willis Test
D. z-test

27. What type of chart is useful for showing trends or changes over time?
A. Pie Chart
B. Column Chart
C. Line Chart
D. Dot Graph

28. The split-half method is used as a test to determine:
A. Stability
B. Internal reliability
C. Inter-observer consistency
D. External validity

29. Find the median of the call received on 7 consecutive days 11, 13, 17, 13, 23, 25, 19:
A. 13
B. 23
C. 25
D. 17

30. A show card is:
A. One that prevents respondents from expressing their opinions about a statement
B. One that encourages explicit discussion of sensitive or personal information
C. One that prompts respondents to choose from a range of possible answers
D. One that researchers must present when they compete at pony club events

31. The standard error is a statistical measure of:
A. The normal distribution of scores around the sample mean
B. The extent to which a sample mean is likely to differ from the population mean
C. The clustering of scores at each end of a survey scale
D. The degree to which a sample has been accurately stratified

32. Cohen's kappa is a measure of:
A. Inter-surveyor consistency
B. Intra-observer validity
C. Intra-coder validity
D. Inter-observer consistency

33. The ability of the test to call it negative in those who do not have the disease is known as:
A. sensitivity
B. validity
C. specificity
D. Reliability

34. What is the role of the moderator in a focus group?
A. To stimulate discussion and keep the conversation on track
B. To ask leading questions and dominate the discussion
C. To sit away from the group and observe their behaviour
D. To evaluate the group's performance on a particular task

35. COVID-19 stands for:
A. Corona Virus Induced Disease - 2019
B. Corona Virus Infectious Disease - 2019
C. Corona Virus Influenza Disease - 2019
D. Corona Virus Inflammatory Disease - 2019

PART-B

36. What is stunting?
A. Low height-for-age
B. Low weight-for-height
C. Weight-for-height
D. None of the above

37. Tuberculosis is spread by:
A. droplet transmission
B. airborne transmission
C. contaminated water
D. contaminated food

38. A disease that is continuously present in a certain population is classified as:
A. syndemic
B. endemic
C. pandemic
D. epidemic

39. The spread of cancer cells from the primary tumor to other parts of the body is called:
A. Benign
B. Congenital
C. Metastasis
D. Metaplasia

40. Kwashiorkor and beri-beri are:
A. Communicable diseases
B. Infectious diseases
C. Deficiency diseases
D. Autoimmune diseases

41. How many grams of dietary fibre we need per day?
A. 5-15
B. 15-20
C. 30-40
D. 45-50

42. Which one of the following is not a social determinant of health?
A. Poverty
B. Marginality
C. Illiteracy
D. Heredity

43. The strength of sewage is expressed in terms of:
A. Biological Oxygen Demand (BOD)
B. Chemical Oxygen Demand (COD)
C. Suspended solids
D. *E. coli* count

44. Occupational exposure to dust causes:
A. Tuberculosis
B. Pneumonia
C. Salmonella
D. Pneumoconiosis

45. The following are the best indicators of the level of air pollution except:
A. Sulphur dioxide
B. Smoke index
C. Carbon monoxide
D. Suspended particles

46. Cause of death cannot be obtained by:
A. Verbal Autopsy
B. Post Mortem Examination
C. Medical Certificate of Death
D. Census Records

47. The number of prevalent cases of cataract in a community can decrease for the following reasons EXCEPT:
A. Increase in lens implantation
B. Decrease in cataract incidence
C. Decrease in mortality
D. Early detection of cataract

48. Physical Quality of Life Index is a combination of the following except:
A. Life expectancy
B. Infant Mortality Rate
C. Education or literacy
D. Income

49. As per the WHO the rate for caesarean sections at community level is around:
A. 10-15%
B. 16-20%
C. 20-25%
D. Less than 5%

50. Health care-associated infections (HCAIs) are infections that occur while receiving health care, include all except:
A. Developed in a hospital or other health care facility
B. First appear within 48 hours or more after hospital admission
C. Within 30 days after having received health care
D. First appear 48 hours or more after hospital admission

51. The father of hand hygiene was:

A. Ignaz Semmelweis
B. Robert Koch
C. Louis Pasteur
D. John Snow

52. NFHS standa for:
A. National Family Health Service
B. National Family Health Scheme
C. National Family Health Survey
D. National Family Health System

53. Capability Approach - a welfare concept was proposed by:
A. Michael Kramer
B. Esther Duflo
C. Abhijit Banerjee
D. Amartya Sen

54. Transition in Health includes EXCEPT:
A. Disease Transition
B. Demographic Transition
C. Nutrition Transition
D. Income Transition

55. Health Economics is all about:
A. Opportunity Cost
B. Direct Cost
C. Indirect Cost
D. Intangible cost

56. If you are studying the rate of breast cancer, which of the following events would not affect a participant's person-time:
A. Patient undergoes a double mastectomy (removal of both breast)
B. Death
C. Lost to follow up
D. Diagnosis with uterine cancer

57. Which of the following is characteristic of a single-exposure, common-vehicle outbreak?
A. Frequent secondary cases
B. Increasing severity with increasing age
C. Explosive
D. Cases include both people who have been exposed and those who were not exposed

58.What would be the effect on age-specific incidence rates of uterine cancer if, women with hysterectomies were not excluded from the denominator of the calculations, assuming that there are some women in each age group who have had hysterectomies?
A. The rates would remain the same
B. The rates would tend to increase

C. The rates would tend to decrease

D. The rates would increase in older groups and decrease in younger groups

59. What is the appropriate epidemiologic measure to determine the burden of a disease in terms of the number of cases present in a specified geographical area at a specific point in time?

A. Cumulative Incidence

B. Point Prevalence

C. Incidence rate

D. Case fatality ratio

60. During a one-year follow-up, a psychiatrist determined the burden of suicidal ideation among 100 patients with drug addiction. Seven patients had a previous history of suicidal ideation and 20 patients developed it for the first time. What is the incidence of suicidal ideation in the study population?

A. 7% per year

B. 21.5% per year

C. 20% per year

D. 27% per year

61. In a food poisoning outbreak, 75 people were affected. Among them, 50 were hospitalized, and two died. Calculate the case-fatality rate:

A. 1.2%

B. 2.7%

C. 4%

D. 8%

62. For what two issues should a surveillance system be periodically evaluated at the functional level:

A. Completeness and accuracy

B. Incidence and prevalence

C. Relevance and repeatability

D. Sensitivity and specificity

63. In an epidemiological context, what is the population at risk?

A. The proportion of a population that engage in risky behaviours

B. The group of people that may experience the outcome we want to study

C. A group of people participating in a study that may be harmful to them

D. The population group with the highest relative risk of disease

64. Several studies have found that approximately 85% of cases of lung cancer are due to cigarette smoking. This measure is an example of:

A. An incidence rate

B. An attributable risk

C. A relative risk

D. A prevalence risk

65. Which of the following is not a method of control of confounding:

A. Restriction
B. Matching
C. Stratified analysis
D. Ensuring use of accurate instruments.

66. The greatest advantage of hospital data is:
 A. Incidence rates can be calculated
 B. Diagnosis recorded is quite accurate
 C. Clinical research can be undertaken
 D. All patients of fatal diseases will definitely be admitted

67. Which of the following is not a unique feature of experimental study:
 A. The study is prospective
 B. The study can be both prospective and retrospective
 C. There is random allocation of subjects to the study and control groups
 D. The investigator introduces an intervention

68. Most likely reason for failure to establish a cause effect relationship with small sample sizes is:
 A. Alpha error or Type I errors
 B. Beta error or Type II errors
 C. Measurement errors
 D. Observer errors

69. Which of the following is the most problematic in conduct of case control studies:
 A. Time
 B. Cost
 C. Attrition
 D. Selection of appropriate controls

70. Which of the following is correct for a cohort study:
 A. We take two groups which neither have exposure nor have outcome and follow them for defined period of time
 B. Take two groups in which one group have the exposure and other does not, and both groups do not have the outcome and follow both for defined period of time
 C. Single group is studied for the presence of exposure and outcome at given point of time
 D. Take a group which has exposure but not the disease and follow it for a defined period of time

University of Hyderabad
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School/Department/Centre : School of Medical Sciences
Course : Ph.D.   Subject : Public Health

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1	C	26	D	51	A
2	B	27	C	52	C
3	B	28	B	53	D
4	D	29	D	54	D
5	A	30	C	55	A
6	D	31	B	56	D
7	C	32	D	57	C
8	A	33	C	58	C
9	A	34	A	59	B
10	C	35	B	60	B
11	A	36	A	61	B
12	D	37	A	62	A
13	C	38	B	63	B
14	D	39	C	64	B
15	D	40	C	65	D
16	C	41	C	66	B
17	B	42	D	67	B
18	B	43	A	68	B
19	B	44	D	69	D
20	A	45	C	70	B
21	C	46	D		
22	D	47	C		
23	D	48	D		
24	A	49	A		
25	B	50	B		

Note/Remarks :

Signature
School/Department/Centre