IMPORTANT MCQ ON COMMUNITY RESEARCH

1. A Study Involved 100 contraceptive pills users and 100 non users. both were followed up for 10 years to study relationship between oral contraceptive pills and breast cancer. Among pills users group, there were 20 cases reported for breast cancer while 15 cases were reported in non-pill users group. The correct calculated overall incidence is
   A) 20/100
   B) 15/100
   C) 35/100
   D) 35/200
   E) 5/100

   D

2. The careful detailed report that is given by clinicians to profiles a single patient's case Is called:
   A. Case report.
   B. Case seres
   C. Correlation study
   D. Cross-section study.
   E. Cohort study

   A

3. Which of the following is useful to study the non-fatal and chronic conditions and not suitable to study the rare disease or disease with short duration?
   A. Case report
   B. Cohort study.
   C. Correlation study
   D. Case series study.
   E. Cross-section study

   E

4. In a cohort study, an exposure is assessed and then participants are
   A) followed prospectively to observe development of the outcome
   B) asked retrospectively to check occurrence of the outcome
   C) divided into groups according to outcome.
   D) treated from the outcome.
   E) randomly divided into groups

   A

5. Cohort Studies generally look at which of the following?
   A) Determining the sensitivity and specificity of diagnostic methods.
   B) Identifying patient characteristics or risk factors associated with a disease or outcome
   C) Variations among the clinical manifestations of patients with a disease
   D) The impact of blinding or masking a study population
   E) Impact of intervention on the outcome

   B

6. A Study involved 100 contraceptive pills users and 100 non users, both were followed up for 10 years to study relationship between oral contraceptive pills and breast cancer. Among pills users group, there were 20 cases reported for breast cancer while 15 cases were reported in non-pill users group. The correct calculated relative risk is:
   A) RR=3/4
   B) RR=1/2
   C) RR=4/3
   D) RR=1/5
   E) RR-=2/5

   C

7. Which of the following in known as prevalence study?
A. Case series
B. Case report
C. Case-control study
D. Cross-section study
E. Cohort study

D

8. First step of research process:
A. Formulate a research problems
B. Research design
C. Construct tools for data collection
D. Select a sample (size & method).
E. Write research proposal.

A

9. The retrospective form of the analytical studies is:
a) Case control study.
b) Cross sectional study.
c) Cohort study.
d) Experimental study.

A

10. Which of the following is useful to study the risk factors of rare diseases:
a) Case-control study
b) Cohort study.
c) Case series study.
d)Cross-section study.

A

11. Based on a case control study for relationship between breast cancer and oral contraceptive pills users, which of the following is correct:
a) Control group is non-contraceptive pills users.
b) Control group is not a breast cancer.
c) Relative risk can be calculated from this study.
d) This study is prospective.

B

12. Odds ratio can be calculated from:
a) Ecological study
b) Cohort study.
c) Case control study.
d) Cross sectional.

C

13. The best summary measure for body mass index variable in a set of cardiac patients when the variable is normally distributed is :
A. Median
B. Mean
C. Mode
D. Frequency
E. Percentage

B

14. Regarding phases of testing new agent, one of the following is true:
A) Phase 1: evaluate its safety, determine a safe dosage range, & identify side effects.
B) Phase 2: establish the efficacy of the drug, usually against a placebo.
C) Phase 3: The experimental treatment is given to a larger group of people (100-300)
D) Phase 4: Post-marketing studies.

D

15. The type of the study that can actually prove causation is:
a. Cohort study
b. Case control study
c. Experimental study
d. Cross sectional study
e. Case report

C

16. computer generates 100 random numbers, and 100 people whose names correspond with the numbers on the list are chosen What is the type of sampling technique?
    A. Simple random sample
    B. Systematic random same
    C. Cluster sample
    D. Multi stage random sample
    E. Stratified random sample

A

17. A researcher wishes to investigate covid 19 immunization coverage in Egypt. The best sampling technique is:
    A. Simple random sample
    B. Systematic random sample
    C. Cluster sample
    D. Multi stage random sample
    E. Stratified random sample

D

18. Heamoglobin variable in blood coded as (Aneamic & normal) was examined in two groups. This variable can be represented in tables by :
    A. Mean and standard deviation
    B. Median and range
    C. Number and percent
    D. Variance
    E. Ratio

C

19. Graph showing the relation between serum calcium and bone mineral density variables is called:
    a) Scatter diagram
    b) Frequency polygon
    c) Picture chart
    d) Histogram
    e) pie chart

A

20. Serum cholesterol levels in a group of young adults found to be approximately normally distributed with mean level 170 mg/dl and standard deviation 8 mg/dl. Which of the following intervals include approximately 68% of serum cholesterol in this group?
    A) 160-180 mg/dl
    B)162-178 mg/dl
    C)150-190 mg/dl
    D)154-186 mg/dl
    E)140-200 mg/dl

B

21. You are preparing a report to present mortality & morbidity from covid 19 according to age groups (<20 years,20-40,>40) during the last 12 months. Which graph best describes these data?
    A) Simple bar chart
    B) Multiple bar chart
    C)Frequency polygon
    D) Histogram
    E) Pie chart

B

22. An investigator wants to study the association between maternal intake of iron supplements (Yes or No) and incidence of low birth weight (<2500 or>2500) gms. He collected relevant data from 100 pregnant women as to the status of usage of iron supplements and the status of low birth weight in their newborns. The appropriate statistical test of hypothesis advised in this situation is:
    a Paired - t-test
    b. Unpaired or independent t-test
    c. Analysis of variance
    d. Chi - Square test

D

23. The group that does not receive the experimental treatment condition is the A) Experimental group B) Control group C) Treatment group D) Independent group E) Standard group	**B**
24. In a double-blind study: a) subjects are unaware of whether they are in the experimental or control group study b) subjects and the observer are unaware of the subjects group allocation c) subjects, the observer and data analyst are unaware subjects group allocation	**B**
25. The Interpretation of p value =0.06 A. Statistically non -significant results, null hypothesis is accepted B. Statistically non- significant results, null hypothesis is rejected C. Significant results ,null hypothesis is accepted D. Significant results , null hypothesis is rejected E. Study hypotheses are rejected	**A**
26. Which of the following data is best described by Histogram? a. Height of infants in cm b. Gender of a group of patients c. Type of treatment d. Severity of pain e. Height of patients (short-average-tall)	**A**

FORMATIVE MCQ ON

COMMUNITY

RESEARCH

1. Which of the following studies can be used to calculate Odds ratio?
   a) Descriptive study
   b) Cross sectional study
   c) Experimental study
   d) Case control study
   e) Cohort study

   D

2. The study that looks for associations between exposures & outcomes in population rather than in individuals is:
   a) Case control study
   b) Case series
   c) Case report
   d) Ecological study
   e) Epidemic investigation

   D

3. What are the diagnostic stages that can be isolated from the tissues in case of Acanthamoeba infection?
   a) Trophozoite and cyst
   b) Cyst and amastigote
   c) Amastigotes and promastigote
   d) Filariform larva and microfilaria
   e) Oocyst and cyst

   A

4. An investigator takes a sample of healthy individuals, divided into two groups, follows their ongoing solar exposure, and relates that to the subsequent occurrence of skin cancer in each group, the type of the study is:
   a) Case series
   b) Case control study
   c) Cross sectional
   d) Ecological study
   e) Cohort study

   E

5. Which of the following is qualitative variable?
   a) Serum cholesterol (mg/dl)
   b) Celsius temperature scale
   c) Weight (kg)
   d) Creatinine in blood (mg/ dl)
   e) Gender

   E

6. Which type of screening offered to all individuals, irrespective of the presence of particular risk to the disease?
   a) High risk screening
   b) Clinical screening
   c) Multiphase screening
   d) Laboratory screening
   e) Mass screening

   E

7. What is risk measure that can be calculated from case control study?
   a) Relative contribution.
   b) Attributable risk
   c) Relative risk
   d) Prevalence rate.
   e) Incidence rate of disease among exposed and among non-exposed.

   A

8. The following factor can decrease the prevalence rate of disease:
   a) increase in new cases (increase in incidence)
   b) longer duration of the disease
   c) in-migration of cases
   d) prolongation of life of patients without cure
   e) in-migration of healthy people

   E

9. The **study where both exposure and disease are determined** simultaneously for each subject is:
   a) Case study
   b) Case control study
   c) Cross sectional study
   d) Cohort study

   C

10. The **prospective form of the intervention studies** is:
    a) Case control study.
    b) Ecological studies
    c) Cross sectional study.
    d) Experimental study.
    e) Cohort study.

    D

11. **First step of research design is:**
    a) Select a sample (size & method)
    b) Formulate a research problem
    c) Research design
    d) Construct tools for data collection.

    B

12. **Reliable test is the test characterized by:**
    a) precise and valid test
    b) cost effective test
    c) give same values when repeated
    d) non painful test
    e) least time consuming

    C

13. **Odds ratio can be calculated from:**
    a) Cross sectional.
    b) Ecological study
    c) Cohort study.
    d) Case control study.

    D

14. A Study involved 100 contraceptive pills users and 100 non users, both were followed up for 10 years to study relationship between oral contraceptive pills and breast cancer. Among pills users group, there were 20 cases reported for breast cancer while 15 cases were reported in non-pill users group. The correct calculated attributable risk is:
    a) 35/100
    b) 20/100
    c) 15/100
    d) 5/100
    e) 35/200

    D

15. A household survey of 10 families was conducted by students of 4th year MBBS Medical College In the data they collected, the ages of heads of families were: 32, 34, 35, 36, 36, 42, 44, 46, 48, and 52. The mean age of heads of families is:
    a) 42
    b) 36
    c) 38.5
    d) 40
    e) 40.5

    E

16. Most important causes of maternal mortality in Egypt is:
    a) Autoimmune diseases
    b) Different types of cancer
    c) Hemorrhage and infection
    d) Psychological disorders
    e) Cardiovascular diseases

    C

17. A study was conducted to investigate the effect of HIV infection on mortality among people in Kenya with TB. Individuals with TB were recruited from hospitals and their HIV status determined. They were then followed-up over ten years to compare mortality rates in the HIV positive group and HIV negative group. The study type is

a) Ecological study
b) Cross-sectional study
c) Cohort study
d) Randomized controlled trial
e) Case-control study

C

18. An investigator collects diastolic blood pressure (DBP) levels of a group of patients. He divides his scale of measurement into intervals of 5 mmHg each. The investigator counts the number of patients with DPB in each class. If the investigator were to plot the frequency of Blood pressure levels in each interval, he would probably choose the following type of graph:

a) Scatter diagram
b) Pie chart
c) Histogram
d) Bar chart
e) Component bar chart

C

19. A survey study aims to detect the prevalence rate of HCV all over Egypt. The type of this study is:

a) Local one purpose survey study
b) National one purpose survey study
c) Local multipurpose survey study
d) Local analytical survey study

B

20. Which of the following is disadvantage of a cohort study?

a) Cannot calculate prevalence rate, incidence rate or relative risk.
b) Difficulty to be sure that a correlation is causal or not.
c) Liable to bias.
d) Not useful in rare exposure.
e) Uncertain data due to incomplete records of past events & unstandardized observation.

B

21. Based on a case control study for relationship between heart diseases and high fat died, the calculated OR=3 this means:

a) High fat diet increases risk of heart diseases.
b) Incidence rate can be calculated from this study.
c) High fat diet decreases risk of heart diseases.
d) This study is prospective
e) No relation between high fat diet and heart diseases.

B

22. Which of the following refers to an observational study of a population which is carried out once (at a single point of time) and measures prevalence?

a) Case series.
b) Correlation study.
c) Case control study.
d) Longitudinal study.
e) Cross-sectional study.

E

23. First step in research design is:
a) Research design
b) Formulate a research problem
c) Construct tools for data collection
d) Select a sample (size & method)
e) Publication of research

B

24. The research component that is very specific and starting with action verbs is :
a) Research goal
b) Research tool
c) Research objective
d) Research conclusion
e) Research hypothesis

C

25. As an epidemiologist, you are asked to recommend the type of study appropriate to study the causes of a rare form of cancer, What type of study design do you recommend?
a) Prospective cohort
b) Cross sectional
c) Excremental
d) Case control
e) Case series

D

26. An investigator take a sample of healthy individuals, record their ongoing solar exposure and relate to the subsequent occurrence of skin cancer in same group:
a) Case control study
b) Ecological study
c) Cohort study
d) Cross sectional study
e) An intervention studies

C

27. A Seven-year-old girl has fallen on her wrist on a school trip. X-ray reveals comminuted fracture of her radius. She needs urgent manipulation under anaesthesia in order to achieve satisfactory realignment. The parents are not present. What should the orthopedic surgeon do?
a) Wait till the parents or guardian came to take their written consent.
b) Urgent treatment which is in the child's best interests must be done.
c) The doctor should request the court order to have consent.
d) Call the parents first, explain what happens and take their oral consent.
e) The teacher can sign the consent since she is the accompanying adult.

B

28. The type of study that can prove causation is:
a) Cohort study
b) Case control study
c) Experimental study
d) Cross-sectional study

C

29. The level of agreement between repeated measurements give the same values in repeated application on same individuals, is called:
a) Validity
b) Reliability
c) Sensitivity
d) Predictive value
e) Specificity

B

30. Number of health care workers who received HB vaccine can be considered as: a) Quantitative discrete b) Qualitative value c) Quantitative continuous d) Nominal variable e) Ordinal variable	A
31. Hg variable in blood coded as (anemic or normal) was examined in tow groups, this variable can be represented in tabled by a) Mean and standard deviation b) Median and range c) Number and percent d) Variance e) Ratio	C
32. The best summary measure for age variable in years normally distributed is: a) Median b) Mean c) Mode d) Frequency e) Percentage	B
33. Which section of research proposal contain details of all the items you cite: a) Method b) Summary c) Reference d) Introduction e) Aim of work	C
34. Which section of research proposal will tell the research committee how you plan to tackle your research problem: a) Method b) Summary c) Reference d) Introduction e) Aim of work	A
35. Which part can effectively decide type of study and its design in research proposal: a) Statistical analysis b) Sampling technique c) The addressed problem d) The proposed objectives e) The operation definition of used variables	D
36. A researcher wishes to investigate poliomyelitis immunization coverage in his country to publish his result to WHO, The best sampling technique is? a) Simple random sample b) Systemic random sample c) Cluster sample d) Multi-stage random sample e) Stratified random sample	D
37. You are preparing report to present magnitude of smoking hazards according to sex in city during last 12 months, which graph best describe these data? a) Simple bar chart b) Multiple bar chart c) Frequency polygon d) Histogram e) Pie chart	B

#	Question	Answer
38.	Histogram is used as method of group presentation for: a) Qualitative ordinal data b) Quantitative continuous data c) Quantitative data discrete d) Quantitative nominal data e) Qualitative multinominal data	B
39.	normally distributed data curve chrachtrized by a) Mean > median > mode b) Mean < median c) There are two modes d) Mean=median e) There is high value in data	D
40.	The numerator of incidence rate of chronic diseases: a) Total number or examined population b) Number of few cases among contacts of primary cases c) Number of reported new cases of the disease d) At risk population e) Total number of contacts	C
41.	The following is a source of morbidity statistics: a) Maternal mortality records b) Birth certificates c) Hospital and dispensary statistics d) Age specific fertility rate e) Crude birth rate	C
42.	Beta error: a) Type 1 error b) False positive results c) Determines power of study d) True negative e) The rejection of null hypothesis	C
43.	Number of students of school was 2000, they were examined and new 50 cases of influenza were detected. The incidence rate of influenza is: a) 25 per 10 b) 25 per 100 c) 25 per 1000 d) 25 per 10,000 e) 25 per 100,000	C
44.	Of the following what are characters consistent with positive skewness: a) The mean will be to the right b) Median is greater than mean and mode c) Data are parametric d) Paired test can be used to compare data e) Curve shifted to left	A
45.	Of the following values which is considered statistically significant: a) $P = 0.07$ b) $P = 0.5$ c) $P = 0.03$ d) $P = 0.1$ e) $P = 1$	C
46.	ANOVA test is: a) Parametric test comparing 2 independent groups b) Non -Parametric test comparing 2 paired groups c) Test of normality when sample size more than 50 d) Parametric test comparing 4 independent groups e) Parametric test comparing 2 paired periods	D

47. Discrimination of locality of sensation depends on the...
    a) Rate of discharge along the afferent nerve.
    b) Projection from the cortex.
    c) Presence of specific pathway for each sensation.
    d) Weber-fescher's law.
    e) Number of receptors

B

48. Which type of screening uses several screening tests at the same time
    a) Clinical screening
    b) High risk screening
    c) Laboratory screening
    d) Mass screening
    e) Multiphase screening

E

49. First step of research design is...
    a) Formulate a research problem
    b) Research design
    c) Construct tools for data collection.
    d) Select a sample (size & method)
    e) Write research protocol

A

50. Which one of the followings can study both exposure and disease simultaneously for each subject
    a) Case series
    b) Cross sectional study
    c) Case control study
    d) Cohort study
    e) Experimental study

B

51. Which of the following is known as prevalence study
    a) Case series
    b) Case report
    c) Cohort study
    d) Case control study
    e) Cross section study

E

52. A study on cancer colon in relation to fat consumption of people based on already available data obtained from the entire population is called:
    a) Case report
    b) Ecological study
    c) Case control study
    d) Experimental study
    e) Cross-sectional study

B

53. A study was conducted to investigate the effect of HIV infection on mortality among people in Kenya with TB. Individuals with TB were recruited from hospitals and their HIV status determined. They were then followed-up over 10 years to compare mortality rates in HIV positive group and HIV negative group. The study type is:
    a) Case control study
    b) Cohort study
    c) Randomized controlled trial
    d) Ecological study
    e) Cross sectional study Decreased alpha feto protein

B

54. The nominator of proportionate death rate is:
    a) Total number of deaths of a specific cause in a certain Y & L
    b) Overall deaths in a certain Y & L
    c) Males deaths in a certain Y & L
    d) Females death in a certain Y & L
    e) Estimated mid-year population at same Y & L

A

55. Normally distributed data curve characterized by:
    a) Mean >median>mode.
    b) Mean<median.
    c) There are two modes
    d) Mean=median

D

56. One of the following is a risk measure that can be calculated from case control study:
    a) Incidence rate of disease among exposed and among non-exposed.
    b) Relative risk
    c) Attributable risk
    d) Relative contribution.
    e) Prevalence rate

D

57. The first step in any experimental design is:
    a) Identify the reference population.
    b) Selection of study population.
    c) Getting informed consent.
    d) Analyze the results.
    e) Allocation of subjects to experimental and control group

B

58. The prospective form the studies is:
    a) Case control study.
    b) Cross sectional study.
    c) Case report.
    d) Cohort study.
    e) Ecological studies

D

59. The level of agreement between repeated measurements that give the same values in repeated application on the same individuals; this is called:
    a) Validity.
    b) Sensitivity.
    c) Predictive value.
    d) Specificity
    e) Reliability

E

60. Which type of screening offered to all individuals, irrespective of the presence of particular risk to the disease
    a) High risk screening
    b) Multiphase screening
    c) Mass screening
    d) Laboratory screening
    e) Clinical screening

C

61. The measure of central tendency that can be used for all types of variable
    a) Mean
    b) Mean & mode.
    c) Mode
    d) Median
    e) Mode& median

C

62. Which of the following is an advantage of a cohort study:
    a) Cheap & quickly
    b) Does not require large samples
    c) Useful in study of rare exposure
    d) Study several risk factors
    e) Can estimate risk (odds ratio)

C

63. For an epidemiological study, every 10th person is selected from a population. This type of sampling is known as:
    a) Simple random sampling
    b) Stratified random sampling.
    c) Systematic random sampling
    d) Cluster random sampling
    e) Multistage random sampling

C

64. A household survey of 10 families was conducted by students of 2nd year MBBS Medical College. In the data they collected, the ages heads of families were: 28, 34, 35, 36, 37, 40, 44, 47, 50, and 56. The mean age of heads of families is:
    a) 37
    b) 39.5
    c) 40
    d) 40.1
    e) 40.7

E

65. An investigator collects diastolic blood pressure (DBP) levels in mm Hg of a group patients. The best type of graphs that can be used to present data is:
    a) Bar chart
    b) Component bar chart
    c) Histogram
    d) Pie chart
    e) Scatter diagram

C

66. For a negatively skewed data mean will be:
    a) Less than median
    b) More than median
    c) Equal to median
    d) Half standard deviation
    e) Half median

A

67. The flowing factor can decrease the prevalence rate of disease:
    a) In-migration of healthy people
    b) In-migration of cases
    c) Longer duration of the disease
    d) Prolongation of life of patients without cure
    e) Increase in new cases (increase in incidence)

A

68. Misuse Of antibiotics with resulting bacterial resistance can:
    a) Decrease prevalence rates of disease
    b) Decrease mortality rates of disease.
    c) Decrease birth rates of disease.
    d) Decrease incidence rates of disease.
    e) Increase prevalence rates of disease

E

69. The baby who dies after 28th week of pregnancy is termed:
    a) Abortion
    b) Infant mortality
    c) Still birth
    d) Neonatal mortality
    e) Miscarriage

C

70. Which one of the followings is the most important cause of maternal mortality in Egypt?
    a) Hemorrhage and infection
    b) Colorectal cancer
    c) Mental disorders
    d) Autoimmune diseases
    e) Heart failure

A

71. A survey study in a primary school aims to estimate the magnitude of anemia and short stature among students. The type of this study is:
    a) Local one purpose survey
    b) National one purpose survey
    c) Local multipurpose survey
    d) National multipurpose survey
    e) Local cohort survey

C