GENESIS

(Post Graduation Medical orientation Centre)

Exam : Biostatistics_Class Test_FCPS_2020

Class/Chapter :

Total Mark : 60
Pass Mark : 42

Question 16 to End is Based on Single Answers

Time : 1800 Min
Date : 2020-09-13

1. Regarding variable:
a). a) Independent variable doesn't influence the outcome variable
b). b) Smoking acts as dependent variable to Ca Lung
c). c) Qualitative numerical values may not be meaningful
d). d) Numeric discrete variable can be converted into nominal variables
e). e) Discrete variables are sometimes expressed in fractions
FFTTF

2. Which of the following examples are incorret
a). a) Graph: Frequency polygon
b). b) Diagram: Dot diagram
c). c) Nominal: Religion
d). d) Interval: Temperature
e). e) Ordinal: occupation
FTFFT

3. Characteristic of normal curve
a). a) Bilaterally symmetrical
b). b) Bell shaped
c). c) Median indicates mid point of frequency distribution
d). d) Less than 50% values lies below the mean
e). e) MEAN +/- 2SD covers more than 85% of the observations
TTFFT

4. Random Sampling:
a). a) There is equal probability of being included
b). b) Simple random sampling is low cost
c). c) Systemic sampling is done in scattered population
d). d) Systemic sampling is more time and labour consuming
e). e) Simple random sampling need technically skilled person
TFTFT

5. Justify following statements:
a). a) Samples sometimes may not be representative
b). b) Random sampling is more authentic
c). c) Non probability sampling is less convenient
d). d) Cluster sampling includes large mass population
e). e) Incidental sampling is done purposively
FTFFT

6. Which of the following statements are correct?
a). a) Quadratic mean is reciprocal of arithmetic mean
b). b) Arithmetic mean can't be plotted in graph
c). c) Geometric mean is used in population research
d). d) Median is not affected by extreme values
e). e) Mode is least mathematical
FTTTF

7. Measures of Dispersion include:
a). a) Standard error
b). b) Range
c). c) Mean distribution
d). d) Co efficient of variance
e). e) Percentile
TTFTT

8. Requirements of construction of frequency distribution
a). a) Class value
b). b) Highest range value only
c). c) Tally mark
d). d) Whole set of data
e). e) Homogenous distribution
TFTTF

9. Which of the following is incorrect:
a). a) Significant: likely to occur by chance
b). b) P value is quantitative estimate
c). c) Less P indicates less reality
d). d) Null hypothesis is rejected in false positive result
e). e) High P value indicates null hypothesis is retained
TFTFF

10. Parametric test includes:
a). a) Fisher's test
b). b) Fried Man test
c). c) Proportion test
d). d) Regression test
e). e) MWU test
TFTTF

11. Which pairs are correct?
a). a) ANOVA- z test
b). b) Student's t test-t value
c). c) Risk Ratio test-Odds Ratio
d). d) Correlation test-r value
e). e) Regression test-r value
FTTTF

12. Characteristics of causation include -
a). a) Strong Association
b). b) Dose-response Relationship
c). c) Temporal Relationship
d). d) Plausibility
e). e) Consistency
TTTTT

13. Advantage of Systemic Random sampling include -
a). a) Convenient
b). b) More representative than simple random sampling
c). c) Good for small population
d). d) Used for scattered and heterogeneous population
e). e) simple to carryout
TFFTT

14. Which ones are correct regarding null and alternative hypothesis?
a). a) If Null hypothesis is rejected, result is significant
b). b) If null hypothesis is retained, result is significant
c). c) Alternative hypothesis is accepted if p value <0.05
d). d) Alternative hypothesis is retained if observed result is due to by chance
e). e) Null Hypothesis is retained if observed result is by chance
TFTFT

15. Percentile is used to
a). a) Compare an individual value with a norm
b). b) Determine normal range of values
c). c) Calculation of SD
d). d) Develop and interpret physical growth chart
e). e) Define abnormal condition
TTTTT

16. Diabetes Mellitus can lead to dementia by microvascular complication in man.Ageing causes both DM and Dementia.

Which is the confounding variable here?
a). a) Ageing
b). b) DM
c). c) Microvascular complication
d). d) Dementia
e). e) Man
AAAAA

17. Validity Refers to
a). a) Express the degree to which two things are related
b). b) Implied result of a test can be reproduced
c). c) Describes how a study measures the purpose
d). d) Capacity to identify condition correctly
e). e) Express the criteria for a test to be valid
DDDDD

18. You are working in a Dialysis unit. You planned to do a research about efficacy of hemodialysis in renal failure patient. What type of study will be this?
a). a) Case control
b). b) Cohort
c). c) Experimental Study
d). d) Cross sectional study
e). e) Surveillance
CCCCC

19. Regarding Clinical Trial which is true?
a). a) Phase II provides information about pharmacodynamics
b). b) Phase I provides information about Pharmacokinetics
c). c) Phase III is for post marketing surveillance
d). d) Phase IV is the clinical Phase
e). e) Phase II provide information about bioavailability
BBBBB

20. Population -
a). a) Only be Finite
b). b) Dynamic population means the number is usually more or less same
c). c) Finite population can't be dynamic
d). d) is the entire group of people or person or study element
e). e) For statistical study,a heterogenous population is desired
DDDDD

21. Sampling error is different from Bias as it is
a). a) Systemic
b). b) Non-inherent
c). c) Unavoidable
d). d) Correctable
e). e) Non-systemic
CCCCC

22. Level of significance 5% means -
a). a) 5% not by chance
b). b) p value 0.05
c). c) 95% by chance
d). d) p value 0.005
e).
BBBBB

23. Preconditions of students t test doesn’t include -
a). a) Quantitative Data
b). b) Comparison Between two means of three groups
c). c) Sample size less than 30
d). d) Can also be done if sample size more than 30
e). e) Data normally distributed
BBBBB

24. Sensitivity of a test 95% means, out of 100 patients with the disease -
a). a) It can be positive in 95 patient whether having disease or not.
b). b) It is positive in 95 patients who actually don't have the disease
c). c) It is negative in 5 patients who actually have the disease
d). d) It is positive in 5 patients who don't have the disease
e). e) It is negative in 95 patients who have the disease
CCCCC

25. Regarding Cohort study,Which is correct?
a). a) Retrospective
b). b) Involve small number of subject
c). c) Effective for rare disease
d). d) Long Term followup period needed
e). e) Cost effective
DDDDD

26. Which pair is not correct?
a). a) Histogram: Continuous Data
b). b) Bar Diagram: Discrete Data
c). c) Pie Diagram: Quantitative Data
d). d) Frequency Polygon: Continuous Data
e). e) Line Diagram: Time series
CCCCC

27. 4,5,9,9,10,11,11,17,18,18,18,19.. Which is the mode is this series?
a). a) 4
b). b) 11
c). c) 18
d). d) 10
e). e) 5
CCCCC

28. Which if the following is bivariate data analysis?
a). a) t Test
b). b) Simple Regression
c). c) Z test
d). d) Logistic Regression
e). e) Multiple Regression
BBBBB

29. To make out difference among three or more groups in case of Quantitative data with normal distribution, the choice of test is
a). a) Chi square Test
b). b) ANOVA Test
c). c) Friedmann Test
d). d) t Test
e). e) z test
BBBBB

30. Which one is not the criteria of Ideal Screening Test
a). a) Simple
b). b) High Validity
c). c) Sensitivity

d). d) Inexpensive
e). e) Acceptable
CCCCC