بسم الله الرحمن الرحيم

Community medicine,final , Collected Questions
Dr.Sireen +Dr.hamzeh
Done by :Sarah Alhunity+Hana Hashem

LSN ALL, this final exam was held at the time of corona, please note that they are 40 questions in one hour, some questions were controversal among students yet we made our best to get you the right answers.
ALSO, check this 018 med final exam after this one:
https://doctor2018.jumedicine.com/wp-content/uploads/sites/9/2019/11/Final-COLLECTED-QUESTIONS-OF-biostatistics-018.pdf?fbclid=IwAR3g7bnqSh6qF4mXY5tVw1RlPnqLdGlXZTfeOLKrUfkyzW2rrNOlu8xW9OE

1) Which of th efollowing does not apply to non profit (NPS) source water pollution?
- Oil spills, roads and parking lots are major examples of NPS pollution. (Answer)
- It's associated with storm water or runoff
- NPS pollutants build up on land surfaces during dry weather
- Fertilizers, pesticides and animal waste are examples of NPS water pollution.
- Agriculture activites is the leading cause of this type of water pollution.

2) When a researcher accepts null hypothesis when it is in fact false, then the researcher did
-The wrong thing, type 2 error (Answer)
-The wrong thing, type 1 error

- The right thing
- The wrong thing: type alpha error
- The wrong thing: standard error

3)Chi- square can be used to answer a researc question where
- Both variables are nominal (Answer)
- The independent variable is interval and the independent wariable is ordinal
- The indepedent variable is nominal and the independent variable is ration.
- The independent variable is continuous and the independent variable is nominal.
- Both variables are ratio

4) In is normallly distirbuted population ..... % of values are located between 25 standars deviations away from the mean on either side?
- 99 (Answer)
- 95
- 99.9
- 99.7
- 68

5) ...... million deaths every year occur as a result of exposure to ambie (outdoor) air pollution?
- 4.2 (Answer)
- 80
- 24.5
- 17
- 4.2
- 9.2

6) Which of the following is not correct regarding case- control studies?

- Temporal sequence is clear and well established (Answer)
- We cannot measure incidence
- Determining exposure often relies on memory, leading to bias (recall bias)
- Selection of central group may be difficult
- Inefficient sequence is clear and well established.

7) From the definition of epidemiology, distribution refers to?
- The study of the pattern of an event by person, place, and time. (Answer)
- To measure the occcurence of diseases, disability, or death in a specified population.
- Systematic collection, analysis, and interpretation of data.
- Epidemiology studies factors that influence health related events.
- Epidemiology has direct and practical applications for prevention of diseases & amp; promotion of health.

8) Which of the following statments is correct regarding variance?
- It is used in the calculation of standard error in same inferential statistical tests. (Answer)
- It is easily influenced by extreme values
- It is the square root of standard devation.
- It is one of the measures of location.
- It appears in the 5 number summary

9) Which of the following sentences is not correct in regard to air pollutants?
- Nitrogen dioxide and suffer oxides contribute to the formation of acid rain.
- Stratospheric ozone (O_3) and peroxyacetyl nitrate (PAN) are secondary pollutants that lead to the formation of photochemical smog (Answer)

- Volatile hydrocarbons contributes to the formation of photochemical smog
- Suspended particles are the greatest threat to health among air pollutants.
(Some students said first answ others said second one, I suggest it's the second one)

10)A researcher studied the association between gender (Male or female) andmarital status (single, married, ddivrced,or widow) using chi- square, the degrees of freedom, in this test equals?
- 3 (Answer)
- 1
- 4
- 2
- 5

11)A researcher tested the association between alcohol use and liver failure using independent sample t test, he was 95% confident that there is significant association between the two variables on the population level, with of the following values of t proves his conclusion?
- t calc = 3.578 and t cv= 0.188 (Answer)
- t calc= 3.578 and t cv= 4.676
- t calc=3.019 and t cv= 0.075
- t calc= 4.120 and t cv= 4.676

12) Fresh water supply on earth constitutes ..... % of all water on earth?
- 2.6 (Answer)
- 14
- 2.6
- 96
- 0.57

13)A researcher needed to recruit a sample of 120 mothers of children with autism. The researcher visited an autism center and recruited 24 women, and asked each of them to connect him with other mothers of kids with autism, and so on, until the sample size was reached, this is an example of?

- Snowball sampling (Answer)
- Cluster sampling
- Stratified sampling
- Simple random sampling
- Convenienve sampling

14) The highest level of variable measurement, in which zero means a completeabsence of the measured quantity is ?
-Ratio (Answer)
- Interval
- Nominal
- Categorical
- Ordinal

15) A study in which children are randomly assigned to recieve either a newly manufactured fissure sealant or currently available fissure sealant, and are followed to monitor for occurence of caries. This is an example of which type of study?
- Expiremental (Answer)
- Cohort
- Observational
- None of them
- Case-control

16) All of the folllowing statments are correct regarding parametric statistics except?

- Parametric statistictis are based on fewer assumptions about the population than nonparametric statistics (Answer)
- Paired sample t test is an example of parametric statistics
- Parametric techniques are more powerful and more flexible than non parametric statistics
- Parametric statistics require quantitative measurements that yeild interval or ratio level data in the dependent variable.

17)A researcher wants to conduct a study regarding the psychological wellness of all university students in Jordan. He selected randomly 3 universities from the north, the center, and the south, in each university he randomly picked 1000 students. Which of the followings is his refrence population?
- All jordaninan university students (Answer)
- The 1000 randomly picked students
- All students in these 3 universities
- The 3 randomly picked universities
- The 3000 randomly picked students

18) A study examined the relationship between levels of physical activity and psotate cancer mortality rates in 25 european countries (populations). What study design has been used in this case?
- Ecological study (Answer)
- Experimental
- Case study
- Observational study
- Cross-sectional study.

19) Life style is indicated as a risk factor for coronary heart diseases . According to the classic epidermiologic, life style belongs to wich of the following?
- Host factors (Answer)
- Non of the above is true

- Environmental factors.
- Agent factors.
- This theory does not apply to CHD

20) The quality of "Gold standars" in expiremental studies can be achieved through all of the following except?
- Matching (Answer)
- Placebo
- Double blinding
- Blinding
- Randomization.

21) Which of the following atatements is correct regaridng quotes sampling?
- Intentionally oversamples some minorities (Answer)
- It takes the whole group (clusters) of people into the sample randomly
- It respects and preserves real-life proportions in the population
- It gaurantees an equal chance for all sampling frame members to be picked
- It is one of the probability sampling techniques

22) Regarding the cases of John snow, which of the following is correct?
- Snow was a German phyisician who investigated an outbreak of cholera
- Snow believed that water was the source of infection for cholera, and could prove it (Answer)
- Snow broke handles of a few pumps in London
- Farr believed that cholera was related to water
- William Farr and Snow agreed on the cause of cholera in London

23)One of the followibg is not an advantage of cross-sectional study?

- Useful for studying rare health events (Answer)
-Less time consuming than cohort study
- Less expensive than other analytical designs
- Describes the population well
- Generates hypothesis

24) A few researchers have studied colorectal cancer in Jordan, the majority of them found statistically significant association between smoking and colorectal cancer. This applies mostly to which of Hill's criteria?

- Consistency (Answer)
- Temporal sequences
- Biologic plausibilty
- Experiment
- Analogy

25) Which of the following statments is not correct about causation?
- Direct causation can explain lots of causal relationships. (Answer)
- In the germ theory, the agent should be present in every case of disease
- A risk factor that can be changed or removed is important for control of disease
- Multi-causal theory explains most of the chronic diseases
- A necessary but not sufficient causal relationship applies to breast cancer

26) Which of the following is correct regarding measures of central tendency?
- Mean is more sensitive to extreme values than median (Answer)
- A sample can only have one mode
- Median is the same as Q1

- Mean, median, and mode are always the same regardless of normality
- Mean, median, and mode are always different regardles of normality

27) Which of the following is correct about water pollutiion?
- Every two minutes a child dies from water-related diseases (Answer)
- 200 million people die each year due to unsafe water, sanitation, and hygiene
- 3/4 of schools around the world lack safe water and sanitation.
- Only 20% of the world population lives in the driest half of the planet.

28) A and B are independant samples. If sample A has 9 patients, and sample   B has 10 pateints then degrees of freedom ....
- 17 (Answer)
- 2
- 19
- 18
- 1

29) What is the probability distribution table that should be used to protect the value of random variable which can assumes a value between 0 and infinity?
- Poisson distribution table (Answer)
- Normal distribution table
- Pearson's distribution table
- Student's t test distribution table.
- Binomial distribution table.

30) If you belong to a normally distributed population with a mean height of 160 cm and a standard deviation of 10 cm. What is the probability that your height is 160 cm or shorter?
- 50% (Answer)
- 68%

- Cannot be determined
- 100%
- 99.7%

31)In a study of gestational diabetes (GD) in the North of Jordan, 4,000 women who had recently given birth were surveyed, investigators found that 800 of these women reported having had GD during their last pregnancy. What was the prevalence of GD in the North of Jordan?
- 200/10000 (Answer)
- 2%
- 0.2%
- 20/100,000
- 200/10,000

(Note: 800/4000= 0.2 If you want to put % you should multiply with 100% then it will be 20%, but if you want it for population multiply with 1000 thus it's 200 for each 1000)

32) A researcher provided her sample results regarding family monthly income in the form of 5-number summary as follows[$275, $375, $475, $675, $1225] The results of this sample can be described as?

- Skewed to the right (Answer)
- Skewed to the left
- Symmetric
- Normally distributed
- Standardized

33) Recall biass can be avoided in which of the following study designs?
- Cohort design (Answer)

- Cross sectional design
- Case control design
- Ecological design
- Case series

34) What do we call an individual sample memeber whose X is loocated one fifth the range from the left?
- The twenteith percenties (Answer)
- The second quintile
- The first decile
- The first quintile
- The median

35) which of the following statments is correct regarding dependent sample t test?
- Its degree of freedom equals number of pairs - 1 (Answer)
- It is used to compare means between three or more separate groups of people
- Its degree of freedom equals number of individuals - 1
- It is used to compare means between two separate groups of people.
- It has the same calculations formula as independent-sample t test

36) A researcher wants to test the impact of age (continuous) on severity of disability (mild, moderate, severe) in a very small sample. The appropriate test statistic to use is?
- Paired sample t test
- Non-parametric; Kruskal Wallis H. (Answer)
- Pearson's Chi-square
- Mann Whitney U.
- Independent sample t test

37) Brazilian researcher conducted a study to compare chickenpox vaccine history among 3,094 children with hearing difficulty and 10,621 children without hearing difficulty. (They found no association). This is an example of which type of study?
- Case-controled (Answer)
- Observational
- Cohort.
- Clinical trial.
- Experimental

38) A researcher wants compare mean blood glucose level in 3 samples; type I diabetic patients, type II diabetic patients, and healthy people, the appropriate test statistics to use is?
- Parametric: one way anaylsis of variance (ANOVA) (Answer)
- Parametric: paired sample t test
- Parametric: independent sample t test
- Non parametric: Pearon's Chi-square

39) One of the following statments is not correct about air pollution as a major health problem worldwide?

- WHO estimates the 14% of premature deaths related to air pollution are due to ischemic heart disease and stroke (Answer)
- The atmosphere protects the Earth and moderates the climate and blocks harmful UV radiation.
- Transporation, power paints, and industry are the main three sources of air pollution that contribute of Global Warming.
- Over 80% of premature deaths realted to ambient air pollution occur in low- and middle-income countries.
- Almost half of the world's population suffer from indoor air pollution (smoke)

40) In which of the following diseases the prevalence of the diseases is expected to greatly exceed the incidence?
- The medication for the disease is expensive (Answer)
- A disease like common cold or influenza
- Disease self-limiting with short duration
- An effective cure for the disease was discovered and was widely available.
- The disease is fatal