# **EPIDEMIOLOGY**

# FINAL EXAM WAREED BATCH

إعداد:



- I-Regarding the reservoir one statement is correct?
  Select one:

  a. It is a man harboring pathogenic agent with no sign and symptoms
  b. It is an animal harboring microorganism with no sign and symptoms
  c. Man in the most common form of reservoir
- d. Reservoir should always act as a source of infection
- e. Reservoir is never be a carrier in all infectious diseases
- 2-In the randomized control trial, randomization is done to avoid? Select one:
- a. Recall bias
- b. Observer's bias
- c. Interviewer's bias
- d. Selection bias
- e. Outcome bias
- In a village having population of 2000, we found 200 patients with COVID—i 9. What is the prevalence of this disease?

# Select one:

- a. 0.10
- b. 10
- c. 1800
- d. 2
- e. 45
- 4-All of the following are blood-borne infections EXCEPi?

# Select one:

- a. Hepatitis B
- b. Hepatitis C
- c. Hepatitis E
- d. Hepatitis G
- e. Hepatitis D
- **5**-Improved prevention of an acute, nonfatal disease is likely to?

- a. Decrease the prevalence of the disease
- b. Increase the prevalence of the disease
- c. Decrease the incidence of the disease
- d. Increase the incidence of the disease
- e. Neither incidence nor prevalence will change
- 6-Events occurring during the life of a project that tend either to increase or to decrease the expected outcomes of the project, this represents a validity threat, called?
- a. History
- b. Selection
- c. Instrumentation
- d. Testing
- e. Maturation



- Regarding the pathogenesis period in natural history of disease?
  Select one:
- a. It is begin with the appearance of specific sign and symptom
- b. It is started with entry of the causative agent in to human host
- c. It is the period of susceptibility
- d. It is the period when the man in the midst of disease
- e. Primary prevention be apply during this period
- 8-All the followings are the advantages of a cross-sectional study, EXCEPT one? Select one:
- a. Can be used to study several associations at once
- b. Can be conducted over a short period of time
- c. Produce prevalence data
- d. Relative risk can be calculated
- e. They are relatively fast and inexpensive
- 9-Gold standard study for clinical research is? Select one:
- a. Randomised double-blind trial
- b. Case control study
- c. Ecological study
- d. Retrospective cohort study
- e. Systematic meta-analysis
- 10-In a study begun in 1995, a group of 3000 adults in New York were asked about alcohol consumption. The occurrence of cancer was studied in the group between 2010 and 2019. This is an example of? Select one:
- a. Cross sectional study
- b. Case-Control study
- c. Clinical trial
- d. Concurrent cohort study
- e. Ecological study
- 11-The average number of years that an individual is expected to live in a state oigood or very good health. based on current mortality rates and prevalence of good or very good health?
- a. Life expectancy at birth
- b. Life expectancy
- c. Disability- adjusted life years
- d. Healthy life expectancy
- e. Life expectancy at age 65
- Regarding the prevalence one statement is not correct?

- a. It quantifies the proportion of individuals in a population who have the disease at a specific instant
- b. Having a direct relation with duration of a disease
- c. With a successful treatment of the disease the prevalence rate will decreases
- d. The denominator is the total population at risk of having the disease
- e. Immunization has no effect on prevalence



13-2000 persons where included to compare a screening test with a gold standard test, 350 were positive by the diagnostic test. the true positives were 180, the true negatives were 1300, the positive predictive value of the screening test is? Select one:

- a. 33.96%
- b. 51.43%
- c. 74.0%
- d. 78.79%
- e. 88.44%
- 14-The secondary attack rate of measles is more than mumps. What is the conclusion? Select one:
- a. Measles is more dangerous than mumps
- b. Mumps is more dangerous than measles
- c. Measles is more infectious than mumps
- d. Measles is more common than mumps
- e. Mumps is more infectious than measles
- 15-The incidence rate of a disease is 5 times greater in women than in men, but the prevalence rates show no sex difference. The best explanation is that?

  Select one:
- a. The case fatality rate for this disease is lower in women
- b. The case fatality rate for this disease is higher for women
- c. The duration of disease is shorter in men
- d. Risk factors for developing the disease are more common in women
- e. The case fatality rate for this disease is equal in men and women
- 16-The healthy worker effect is a?

Select one:

- a. Selection bias
- b. Recall bias
- c. Random bias
- d. Confounding
- e. Conflict of interest
- 17-To investigate the effect of tobacco chewed on oral cancer, it's observed that 50 out of 100 patients were tobacco chewers, as compared to 20 tobacco chewers out of 100 control subjects. The odds ratio of oral cancer associated with smoking will be?

- a. 3.0
- b. 40
- c. 4.0
- d. Insufficient data given for calculation
- e. 4%



18-It captures the population impact of important fatal and non-fatal disabling conditions through a single measure? Select one:

- a. Life expectancy at birth
- b. Life expectancy
- c. Disability- adjusted life years
- d. Healthy life expectancy
- e. Life expectancy at age 65

19-Guthrie' test?

Select one:

- a. antenatal screening for congenital malformations
- b. hearing screening test for newborn
- c. newborn screening for congenital dislocation of the hip
- d. routine biochemical test on an infant's blood spot
- e. childhood screening for behavioral disorders

20-Folic acid prophylaxis to a pregnant woman is? Select one:

- a. Health promotion
- b. Primordial prevention
- c. Specific protection
- d. Secondary prevention
- e. Tertiary prevention.

21-Introduction of pathogenic organism to a community with high level of herd immunity pattern of disease be?

- a. Endemic
- b. Sporadic
- c. Pandemic
- d. Epidemic
- e. Endemo-epidemic

**22-**All of the following are true regarding the Ratio EXCEPT?

- a. Numerator is component of denominator
- b. Numerator is not a component of denominator
- c. Numerator & amp: denominator are not related values
- d. It is expressed as a number
- e. Ratio is less useful than rates in epidemiology

23-When another exposure exists in the study population and is associated both with the disease and the exposure being studied, this is called?

- a. Selection bias
- b. Recall bias
- c. Measurement bias
- d. Confounding
- e. Conflict of interest



24-Incidence rate is calculated from? Select one:
a. Case-control study b. Case report

- c. Retrospective study
- d. Prospective study
- e. Cross -Sectional study

25-Length of the interval between first diagnosis by screening and diagnosis in patients presenting with symptoms is called?

Select one:

- a. Lead time
- b. Length bias
- c. Natural history
- d. Cost effectiveness
- e. Impact

26-Changes in the way information is collected, this represents a validity threat, called? Select one:

- a. History
- b. Selection
- c. Instrumentation
- d. Testing
- e. Maturation

27-According to. thejordan step survey 2019 the percentage of those (1 8 - 69 years) who have obesity is? Select one:

- a. about half
- b. more among males
- c. about two thirds
- d. equal for both sexes
- e. about one third

28-Which of the following statements is not correct?

- a. Cohort study is more appropriate when the disease or exposure under investigation is rare. In comparison to case control study
- b. Cohort study is more expensive in comparison to case control study
- c. cohort study starts with people exposed to risk factor or suspected cause while case control study starts with disease
- d. A long follow-up period often needed with delayed results in a cohort study whereas a case control study yields relatively quick results
- e. Cohort study needs large sample size in comparison to case control study



29-In a prospective study comprising 10000 subjects, 6000 subjects were put on beta carotene and 4000 were not. 3 out of the first 6000 developed lung cancer and 2 out of the second 4000 developed lung cancer.

What is the interpretation of the above?

Select one:

- a. Beta carotene is not protective in lung cancer
- b. Beta carotene is protective in lung cancer
- c. The study design is not sufficient to draw any meaningful conclusions
- d. Beta carotene is carcinogenic
- e. Data is insufficient need a bigger sample size

# 30-targeted screening?

Select one:

- a. Involves the screening of the whole population
- b. uses several screening tests at the same time
- c. Applied to selective group of population who are at a high risk
- d. individuals are offered tests non-systematically
- e. screening of groups with specific exposures e.g. school children
- 31-The incidence rate is calculated from?

- a. Case series study
- b. Case report study
- c. Prospective cohort study
- d. Cross -Sectional study
- e. Case-control study
- 32 The carrier is important from epidemiological point of view because of the following EXCEPT? Select one:
- a. The carrier state may be of a long duration
- b. Number of carrier in the community is not small
- c. The contacts of the carrier are not aware about him
- d. Sometimes it is difficult to deal with them
- e. Because soil and inanimate organic matter could be act as a carrier
- One of the Following is not an important characteristic of the pathogenic organism from epidemiological point of view?
- a. Viability of the organism
- b. Spore formation
- c. Host specificity
- d. Susceptibility to antibiotics
- e. Toxin formation by pathogenic organism
- 34-The vector-borne disease can occur through all EXCEPT?
- a. Mechanical transmission inside body of a vector
- b. Propagation of microorganism inside body of the vector
- c. Development of microorganism inside body of the vector.
- d. Toxin secretion
- e. Mechanical transmission on the external surface of a vector



35-Compared with the general population, the risk of developing HBV infection among surgeons is? Select one:

- a. The same
- b. More than twice greater
- c. 10 to 20 times greater
- d. 50 times greater
- e. 100 times greater

**36-**Case fatality rate is a method measuring?

Select one:

- a. Infectivity
- b. Virulence
- c. Average duration of disease
- d. Communicability
- e. Pathogenicity

37-The average number of remaining years of life that a man or woman aged 65 will have if mortality levels at each age over 65 remain constant is?

Select one:

- a. Life expectancy at birth
- b. Life expectancy
- c. Disability- adjusted life years
- d. Healthy life expectancy
- e. Life expectancy at age 65

**38-**Communicability of disease is assessed by?

Select one:

- a. Case fatality rate
- b. Secondary attack rate
- c. mortality rate
- d. Incubation period
- e. chronicity

39-Residence of three villages with three different types of water supply were asked to participate in a study to identify cholera carriers. Because several cholera deaths had occurred in the recent past, virtually everyone present at the time submitted to examination. The proportion of residents in each village who were carriers was computed and compared. This study is a?

- a. Case series study
- b. Case-control study
- c. Concurrent cohort study
- d. Ecological study
- e. Cross- sectional study



40-The rank of the Human development index of Jordan (2019) is? Select one:
a. 95
b. 102
c. 74

41-What is NOT true about a case control study?

Select one:

d. 120 e. 86

- a. Provides quick results
- b. Is less expensive relatively
- c. Involves fewer subjects
- d. Gives attributable risk.
- e. Provides prevalence of exposure

**42-**Relative risk is the measure of the strength of the association between the suspected cause & event. Relative risk of one indicates?

Select one:

- a. Positive association exposure & amp: disease
- b. No association at all
- c. Protective state
- d. 2 times high association
- e. 4 times higher association

43-A randomized clinical trial was carried out, studying the effect of a new drug designed to prevent breast cancer (CA) occurring In this study, 1000 healthy women between the ages of 60 and 65 were given the drug, and 1000 were given the placebo for 5 years. Ten and 40 CA breast cases were detected among those given the drug, and placebo respective. The relative risk is?

#### Select one:

- a. 0.24
- b. 0.25
- c. 0.4
- d. 4.0
- e. 4.125

44-in a double blind clinical drug trial?

- a. Each patient receives a placebo
- b. Each patient receives both (double) treatments
- c. The patients do not know which treatment they are receiving
- d. The patients do not know that they are in a drug trial
- e. Each patient double checked daily



45-In a controlled trial to compare two treatments, the main purpose of randomization is to ensure that the? Select one:

- a. Two groups will be similar in prognostic factors
- b. Clinician does not know which treatment the subjects will receive
- c. Sample may be referred to a known population
- d. Clinician can predict in advance which treatment the subjects will receive
- e. Participants will complete the treatment

46-Co infection must exist for replication and infection to occur in Select one:

- a. Hepatitis A virus (HAV)
- b. Hepatitis B virus (HBV)
- c. Hepatitis C virus (HCV)
- d. Hepatitis D virus (HBV)
- e. Hepatitis E virus (HEV)

47-The convalescent carrier is mostly?

Select one:

- a. Temporarily carrier
- b. Transient carrier
- c. Permanent carrier
- d. Chronic carrier
- e. Lifelong carrier

48-The global target of relative reduction in the risk of premature mortality from NCDs by 2025 is by? Select one:

- a. 25%
- b. 20%
- c. 35%
- d. 60%
- e. 50%

# 49-Tropism is?

Select one:

- a. The ability of microorganism to penetrate into the body fluid and tissues
- b. Ability of microorganism to produce specific clinical reaction following entrances to the body
- c. The ability of microorganism for tissue selectivity
- d. The ability of microorganism to live outside body host
- e. The ability of microorganism to stimulate immunological reaction

50-In a village with population of 5000, 50 people have a disease and 10 of them died. What is case fatality rate?

- a. 1%
- b. 2%
- c. 0.5%
- d. 20%
- e. 0.19%



51-Double blind study means?

Select one:

- a. Observer is blind about the study
- b. Person or group being observed is blind about the study
- c. Both eyes of the observer are blind
- d. Interpreters and analyser are blind about the study
- e. Both observer and person or group being observed is blind about the study

52-In a town of population 5000, 500 are already myopic on january 1ST 2011. Number of new myopia cases is 90 till December 31 st 2011. Calculate incidence of Myopia in the town in 2011. Select one:

- a. 1.8%
- b. 18%
- c. 5%
- d. 2%
- e. 11.8%

53-An overabundance of information — some accurate and some not? Select one:

- a. eHealth
- b. mHealth
- c. infodemic
- d. epidemiology
- e. digital epidemiology

54-The WHO "Best Buy' interventions for reducing the impact of NCDs concerning cancer include? Select one:

- a. Restricted access to retailed alcohol
- b. Tax increases
- c. Hepatitis B immunization
- d. Treatment with aspirin
- e. Reduced salt intake in food

55-Extrinsic incubation period is?

Select one:

- a. The interval between infection of person and appearance of symptom and sign of adisease
- b. The interval between exposure to infected organism and clearance of organism from the body
- C. The time when the victor infected till becomes as infective
- d. The time between infection of the vector till it die
- e. It is referred to the incubation period of an exported disease

56-The potential benefits of screening were first demonstrated for the identification of individuals with?

- a. brucellosis
- b. thalassemia
- c. tuberculosis
- d. inborn errors of metabolism
- e. cancer breast



57-Natural history of disease is best studied by? Select one:

- a. Cross sectional study
- b. Cohort study.
- c. Case series study.
- d. Case-control
- e. Ecological study.

58-In a study of the cause of lung cancer, patients who had the disease were matched with cancer free individuals. The frequency of cigarette smoking was then compared in the two groups. What type of study was this? Select one:

- a. Prospective cohort
- b. Cross sectional
- c. Experimental
- d. Case-control
- e. Case series

59-In screening, iftreatment is ineffective, earlier diagnosis only increases the time period during which the participant is aware of the disease; this effect is known as? Select one:

- a. Lead time
- b. Length bias
- c. Natural history
- d. Cost effectiveness
- e. Impact

60-Denominator while calculating the secondary attack rate includes?

- a. Midyear population
- b. All the close contacts
- c. All susceptible in the whole village
- d. All susceptible amongst close contact
- e. All the people living in next fifty houses

61-Which of these is related to screening not diagnostic tests?

- a. Done to those who are apparently healthy or asymptomatic
- b. Results are conclusive and final
- c. More expensive
- d. Basis for treatment
- e. Applied to a single person
- 62-Epidemiological marker of Hepatitis B infection is?
- a. HBs Ag
- b. Anti HBs
- c. Anti HBc
- d. HBe Ag
- e. Anti HBe



63-2000 persons where included to compare a screening test with a gold standard test, 350 were positive by the diagnostic test, the true positives were 180, the true negatives were 1300, the specificity of the screening test is? Select one:

- a. 33.96%
- b. 51.43%
- c. 74.0%
- d. 78.79%
- e. 88.44%

**64-**50 people are suffering from cholera in a population of 5000. Out of those 50, suffering from cholera, 10 died. But the total deaths are 50. What is the death rate?

Select one:

- a. 10 per 1000
- b. 5 per 1000
- c. 1 per 1000
- d. 20 per 100
- e. 2 per 1000

65-For a serious condition in newborn children, it might be preferable for the screening test to? Select one:

- a. have high specificity
- b. have low sensitivity
- c. have high sensitivity
- d. have low sensitivity and low specificity
- e. have low sensitivity and high specificity

66-Decreasing the cutoff point of a screening test will lead to?

#### Select one:

- a. Increase sensitivity only
- b. Increase specificity only
- c. Increase specificity but decreases sensitivity.
- d. Increase sensitivity but decreases specificity.
- e. Increase sensitivity and specificity

67-The WHO "Best Buy" interventions for reducing the impact of NCDs concerning tobacco use include? Select one:

- a. Restricted access to retailed alcohol
- b. Tax increases
- c. Hepatitis B immunization
- d. Treatment with aspirin
- e. Reduced salt intake in food

68-Regarding the Incidence one is correct?

- a. It is used to estimate the probability of risk of developing disease at a specific time
- b. It measures the presence of the disease on a single short time point
- c. The denominator is the mid-year population
- d. It quantifies the proportion of individuals in a population who have the disease at a specific instant
- e. The numerator is the number of cases in a community

69-There is an urgent need to coordinate and cooperate on all aspects of the NCD component of the COVID- 19 public health response, including implementation of?

- a. reducing access barriers
- b. managing referral system
- c. preparedness
- d. counter misinformation.
- e. trend analysis

70-Situations in which financial considerations may compromise a researcher's professional judgment in conducting research?

a. Selection bias

b. Recall bias

c. Measurement bias

d. Confounding

e. Conflict of interest

# 71-Concurrent disinfection?

#### Select one:

- a. Giving prophylactic treatment to contact
- b. Killing microorganism inside human body (patient)
- c. Destroying pathogenic organism following removal of patient
- d. Carried out during a period of communicability of that infectious disease
- e. Carried out on the contact of patient
- **72**-One is true about prevalence?
- a. Decreases with decrease in case fatality
- b. It is the ideal measure for studying disease aetiology or causation
- c. It is a ratio
- d. Increases with increase in duration of disease
- e. It is estimated through a case-control study

73-of the modifiable risk factors of NCDs?

- a. raised blood pressure
- b. overweight/obesity
- c. hyperglycemia
- d. physical inactivity
- e. hyperlipidemia

**74-**Incidence and prevalence having a relationship which expresses as the? Select one:

- a. Sum of incidence and mean duration of disease
- b. Dividend of incidence and mean duration of disease
- c. Product of incidence and mean duration of disease
- d. Difference of incidence from the mean duration of disease
- e. Subtract of incidence from duration of disease

75-It eliminates the influence of different age distributions on the compared morbidity or mortality rates?

- a. Life expectancy at birth
- b. Age standardized rates
- c. Disability— adjusted life years
- d. Healthy life expectancy
- e. Life expectancy at age 65



76-According to, the jordan step survey 2019 the percentage of those (1 8 - 44 years) who have 3 or more risk factors for NCDs is

# Select one:

- a. about half
- b. more among females
- c. 5% to less than 10%
- d. equal for both sexes
- e. about one third

77-According to, the jordan step survey 2019 the percentage of males (1 8 - 69 years) who are currently smoker is?

- a. about half
- b. less than among females
- c. about two thirds
- d. equal for both sexes
- e. about one third

78-The most common mode oftransmission in Brucellosis is?

- a. Ingestion mode of transmission
- b. Air-born transmission
- c. Contact transmission
- d. Absorption through the mucous membrane
- e. Inoculation mode of transmission

79-All the following describes the relation of COVID-19 and NCDs except? Select one:

- a. People living with or affected by the major (NCDs) appear to be more vulnerable to becoming severely ill with the virus
- b. People living with or affected by the major (NCDs) will be put at a higher risk of the consequences of bilateral viral pneumonia
- c. Risk factors for NCDs can make people more resistant to becoming severely ill with COVID19
- d. The response to this virus requires extraordinary measures may include significant disruption of access to or even critical shortages of medicines for people living with or affected by NCDs
- e. Health services will be disrupted in many settings. This will impact the detection and diagnosis of NCDs

