RESEARCH

MCQ Past exams

DR. DEXTER

Index

Topic	Page
Lectures Qs	1
57th Class Qs	9
58th Class Qs	13
59th Class Qs	21
60th Class Qs	31
61th Class Qs	41

Lectures Qs

1. Case report is

a) *An interventional study*

b) *Prospective study*

c) *Clinical trial*

d) *Descriptive study*

2. Type of design where both exposure and disease are determined simultaneously for each subject is:

a) *Case study*

b) *Cross sectional study*

c) *Case control study*

d) *Cohort study*

3. First step of research process:

a) *Formulate a research problem*

b) *Research design*

c) *Construct tools for data collection*

d) *Select a sample (size& method)*

4. In the 8 steps model for research design, writing research protocol (proposal) is the….step

a) *1st*

b) *3rd*

c) *5th*

d) *7th*

5. While investigating a point source epidemic, it was found that.120 students ate 4 different foods (meat burger, fried fish, steak & rice). The odds ratio was calculated for each one of these 4 foods. It was concluded that fish was not the cause of this epidemic because its odds ratio was:

a) *0.7*

b) *1.2*

c) *1.7*

d) *3.0*

1	2	3	4	5
D	B	A	C	A

6. to determine an odds ratio, one would have to perform which of the following studies:

a) cross-sectional study

b) case-control study

c) A randomized clinical trial study

d) Cohort study

7. As an epidemiologist you are asked to recommend the type of study appropriate to the needs of researchers who would like to study the cause of rare form of sarcoma. They have discovered registry of this form of cancer and have access to the largest data base of patients with this form of cancer which unfortunately is only few years old. They have funding for only one year from the National Institutes of health and note the budget will be tight. What type of study design do you recommend?

a) Prospective cohort.

b) Retrospective cohort

c) Cross sectional

d) Experimental

e) Case control

8. In a cohort study, an exposure is assessed and then participants are

a) followed prospectively to observe the 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 .

9. 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 .

6	7	8	9
B	E	A	B

10. 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

a) *RR=3/4*

b) *RR=1/2*

c) *RR=4/3*

d) *RR=1/5*

e) *RR= 2/5*

11. 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*

12. 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 & 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) *20/100*

b) *15/100*

c) *35/100*

d) *35/200*

e) *5/100*

13. A 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 sample*

c) *Cluster sample*

d) *Multi-stage sample*

e) *Stratified random sample*

10	11	12	13
C	D	E	A

14. A researcher from Middle East wishes to investigate poliomyelitis immunization coverage in his country (Libya) to publish his results to eastern Mediterranean region of world health organization. The best sampling technique is:

a) *Simple random sample*

b) *Systematic random sample*

c) *Cluster sample*

d) *Multi-stage sample*

e) *Stratified random sample*

15. Hemoglobin variable in blood coded as (anemic & normal) was examined in two groups. This variable can be represented in tables by: Extra Midterm

a) *Mean and standard deviation*

b) *Median and range*

c) *Number and percent*

d) *Variance*

e) *Ratio*

16. The best summary measure for age variable in years normally distributed is: Extra Midterm

a) *Median*

b) *Mean*

c) *Mode*

d) *Frequency*

e) *Percentage*

17. You are preparing a report to present magnitude of smoking hazards (cancer- chronic lung diseases- GIT troubles) according to sex in Dakahlia governorates during the last 12 months. Which graph best describes these data? Extra Midterm

a) *Simple bar chart*

b) *Multiple bar chart*

c) *Frequency polygon*

d) *Histogram*

e) *Pie chart*

14	15	16	17
D	C	B	B

18. 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 95% of serum cholesterol in this group? Extra Midterm

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

19. Graph showing the relation between two scale variables is called: Extra Midterm

a) Scatter diagram

b) Frequency polygon

c) Picture chart

d) Histogram

e) Pie chart

20. Which of the following data is best describe by Histogram? Extra Midterm

a) Quantitative data of a group of patients

b) Qualitative data of a group of patients

c) Data collected on nominal scale

d) Data collected on ordinal scale

e) Data collected from any type of data

21. In the year 2012 is certain village the health center recorded 100 cases of acute diarrhea, the recorded deaths among these cases were 5 deaths. The case fatality rate of diarrhea in this village was Extra Midterm

a) 10%

b) 5%

c) 2%

d) 1%

18	19	20	21
D	A	A	B

22. All the following is causes of neonatal mortality except Extra Midterm

a) Prematurity

b) Congenital malformations

c) ABO incompatibly

d) Birth injuries

23. The denominator of cause specific death rate is Extra Midterm

a) Number of deaths of particular disease in same year and locality

b) Number of reported cases of disease in same year and locality

c) Number of mid-year estimated population in same year and locality

d) Number of total deaths in the same year and locality.

24. The rate which its denominator is total population Extra Midterm

a) Crude death rate.

b) Maternal mortality rate.

c) Infant mortality rate.

d) Case fatality rate

25. The percent of the number of deaths of specific disease to the total deaths in a specific year and locality is known as: Extra Midterm

a) cause specific death rate

b) Case fatality rate .

c) Proportional mortality rate

d) Prevalence rate

26. The Ministry of Health had reported 9000 ischemic heart diseases deaths during the year 2011 in Egypt, on expressing this number of deaths against total number of deaths in Egypt in this year this rate is termed Extra Midterm

a) Crude death rate

b) Age specific death rate

c) Cause specific death rate

d) Proportionate mortality rate

22	23	24	25	26
C	C	A	C	D

27. ..... is an index of the killing power of the disease: Extra Midterm

a) Case- fatality rate

b) Proportional mortality rate

c) Cause specific mortality rate

d) Crude mortality rate

28. The case-fatality rate for an epidemic of hepatitis A with 600 affected cases and 3 deaths of these cases is: Extra Midterm

a) 0.1%

b) 0.2%

c) 0.3%

d) 0.4%

e) 0.5%

29. 566 are diagnosed with a certain disease, 17 of them died calculate case fatality rate: Extra Midterm

a) 4%

b) 3%

c) 25%

d) 1%

30. In an outbreak of cholera in a village of 2000 population, 20 cases have occurred and 5 died. Case fatality rate is; Extra Midterm

a) 1%

b) 25%

c) 5%

d) 0.25%

31. The most important cause of increased post neonatal mortality rate is: Extra Midterm

a) Prematurity

b) Infections

c) Birth injuries

d) Nutritional deficiencies

27	28	29	30	31
A	E	B	B	B

32. Deaths in the first 28 days of life divided by the number of live births in the same year& locality is termed: Extra Midterm

a) *Postneonatal mortality rate*

b) *Perinatal mortality rate*

c) *Neonatal mortality rate*

d) *Infant mortality rate*

33. About 2500 deaths were reported in road side accidents during the year 2006 in Pakistan. If the total number of deaths due to accidents is expressed against the mid-year population of Pakistan in year 2006 this will give: Extra Midterm

a) *Cause specific death rate*

b) *Proportional mortality rate*

c) *Case-fatality rate*

d) *Age specific death rate*

e) *Crude death rate*

32	33
C	A

57th Class Qs

1. From Case control study which of the following risks measures can be calculated:

a) Attributable risk

b) Incidence rate

c) Odds ratio

d) Prevalence rate

e) Relative risk

2. Which of the following is qualitative variable?

a) Celsius temperature scale

b) Creatinine in blood

c) Gender

d) Serum cholesterol

3. An investigator takes a sample of healthy individuals, record their ongoing solar exposure, and relate that to the subsequent occurrence of skin cancer in the same group.

a) Case-control study.

b) Ecological study.

c) Cohort study.

d) Cross-sectional study.

e) An intervention study.

4. Which one of the following values is considered non-statistically significant? Extra Midterm

a) p=0.01

b) p=0.002

c) p=0.04

d) p=0.1

e) p-0.02

1	2	3	4
C	C	C	D

5. Histogram is used as method of group presentation for: Extra Midterm

a) qualitative ordinal data

b) quantitative continuous data

c) quantitative data- discrete

d) qualitative nominal data

e) qualitative multinomial data

6. P-value < 0.05 means: Extra Midterm

a) Non-significant result & reject null-hypothesis

b) Significant result & accept null hypothesis

c) Significant result & reject null hypothesis

d) Non-significant result & accept null hypothesis

7. Cancer staging is:

a) An ordinal variable

b) A nominal variable

c) A continuous variable

d) A discrete variable

8. A new test was developed for screening blood donors for HIV, a group of the non-diseased was tested positive. This type of error is called:

a) True positive

b) False positive

c) True negative

d) False negative

9. A graphical presentation of the relationship between two quantitative variables is called: Extra Midterm

a) Cartogram

b) Pie chart

c) Scatter diagram

d) Histogram

e) Bar chart

5	6	7	8	9
B	C	A	B	C

10. A survey study was conducted on a sample of residents who were graduated from medical school during the last 5 years. It include a random 10% of the graduates from each of the five classes were interviewed. The sampling technique was:

a) Simple random

b) Systemic random

c) Stratified random

d) Two stage random

11. The graph that can be used to plot levels of blood pressure that are divided into intervals of 5 mmHg (70-74, 75-79, 80-84, etc…..) is: Extra Midterm

a) Pie chart

b) Line chart

c) Bar chart

d) Histogram

12. If the following value "0, 3, 7, 9, 4, 10, 70, 69" is a set of data, the best measure of central tendency is: Extra Midterm

a) Mean

b) Mode

c) Median

d) Range

13. The squared standard deviation is called: Extra Midterm

a) Range

b) Standard error

c) Z-score

d) Variance

e) Mean deviation

14. The normal distribution curve is determined by Extra Midterm

a) Mean & sample size

b) Range & sample size

c) Range & SD

d) Mean & SD

10	11	12	13	14
C	D	C	D	D

14. In a population of 100 females in the age group of 15-45, the mean systolic BP was found to be 120. In a normal curve distribution, the number of people who would have an average BP above 120 will be: Extra Midterm

a) 25

b) 50

c) 75

d) 95

e) 85

15. If hypertension is coded in a set of data as (yes/no), variable is typed as:

a) Qualitative nominal

b) Qualitative ordinal

c) Quantitative discrete

d) Quantitative continuous

16. One thousand randomly selected men from a primary health center, have a mean hemoglobin level of 14 gm/dl and a standard deviation of 1 gm/dl. Assuming normal distribution, how many persons have between 12-16 gm/dl? Extra Midterm

a) 500 men

b) 680 men

c) 950 men

d) 997 men

e) 1000 men

17. Standard deviation is a statistical measure used to assess: Extra Midterm

a) Difference of significance in qualitative data

b) Difference of significance in quantitative data

c) Dispersion or spread of values around the mean

d) Central tendency of the values

14	15	16	17
B	A	C	C

58th Class Qs

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 & breast cancer. Among pills users group there 20 cases reported for breast cancer while 15 cases were reported in non-pill users. The correct calculated attributable risk is:

a) 35/100

b) 20/100

c) 15/100

d) 5/100

e) 35/200

2. The fasting blood levels of glucose for a group of diabetics is found to be normally distributed with a mean of 105 mg per 100 ml of blood and a standard deviation of 10 mg per 100 ml blood. From this data it can be inferred that approximately 95% of diabetics will have their fasting blood glucose levels within the limits of: Extra Midterm

a) 75 – 135 mgs

b) 95 - 115 mgs

c) 85 -125 mgs

d) 60 – 110 mgs

3. What is risk measures that can be calculated from case-control study?

a) Relative contribution

b) Attributable risk

c) Relative risk

d) Prevalence rate

4. 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 32, 34, 35, 36, 36, 42, 44, 46, 48 and 52. The mean age of heads of families is: Extra Midterm

a) 42

b) 36

c) 38.5

d) 40

e) 40.5

1	2	3	4
D	C	A	E

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5. The study were both exposure and disease determined simultaneously for each subject is:

a) Case study

b) Case control study

c) Cross sectional

d) Cohort

6. The prospective form of the intervention studies is:

a) Case control

b) Ecological

c) Cross sectional

d) Experimental studies

7. The 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

e) Publication of research

8. The research component that should be very specific and starts with action verbs is:

a) Research goal

b) Research tool

c) Research objective

d) Research hypothesis

e) Research conclusion

9. As an epidemiologist you were 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) Experimental

d) Case control

e) Case series

5	6	7	8	9
C	D	B	C	D

10. An investigator takes a sample of healthy individuals, record their ongoing solar exposure, and relate that to the subsequent occurrence of skin cancer in the same group.

a) Case control study

b) Ecological

c) Cohort

d) Cross sectional

e) An intervention study

11. Histogram is used as method of group presentation for: Extra Midterm

a) qualitative ordinal data

b) quantitative continuous data

c) quantitative data- discrete

d) qualitative nominal data

e) qualitative multinomial data

12. Which of the following is qualitative variable:

a) Celsius temperature scale

b) Creatinine in blood

c) Gender

d) Serum cholesterol

e) Weight

13. most important causes of maternal mortality in Egypt is: Extra Midterm

a) autoimmune disease

b) hemorrhage and infection

c) different types of cancer

d) psychological disorders

e) cardiovascular disease

10	11	12	13
C	B	C	B

14. An investigator collects diastolic blood pressure 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 DBP 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: Extra Midterm

a) Component bar chart

b) Pie chart

c) Scatter diagram

d) Bar chart

e) Histogram

15. Of the following what are characters consistent with positive skewness: Extra Midterm

a) The mean will be to the right

b) Median is greater than mean and mode

c) Data are parametric

d) Paired t test can be used to compare data

e) Curve shifted to left

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

a) Not useful in rare exposure

b) Liable to bias

c) Difficulty to be sure that a correlation is causal or not

d) Cannot calculate prevalence rate, incidence rate, or relative risk

e) Uncertain data due to incomplete records of past events & unstandardized observation.

17. Reliable test is characterized by:

a) Give same values when repeated

b) Precise and valid test

c) Non-painful test

d) Cost-effective test

e) Least time consuming

14	15	16	17
E	A	C	A

18. Odds ratio can be calculated from:

a) Case control study

b) Cross sectional

c) Cohort study

d) Ecological

19. A study is conducted to study 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:

a) Cross-sectional study

b) Cohort

c) Randomized controlled trial

d) Ecological

e) Case-control study

20. The type of study that can actually prove causation is:

a) Cohort study

b) Case control study

c) Experimental study

d) Cross sectional study

21. The level of agreement between repeated measurements give the same values in repeated application on the same individuals, this is called:

a) Validity

b) Reliability

c) Sensitivity

d) Predictive value

e) Specificity

18	19	20	21
A	B	C	B

22. A researcher from Middle East wishes to investigate poliomyelitis immunization coverage in his country (Libya) to publish his results to eastern Mediterranean region of world health organization. The best sampling technique:

a) Simple random sample

b) Systematic random sample

c) Cluster sample

d) Multistage random sample

e) Stratified random sample

23. Number of health care workers who received HB vaccine can be considered as:

a) Quantitative discrete

b) Quantitative continuous

c) Qualitative variable

d) Nominal variable

e) Ordinal variable

24. Hemoglobin variable in blood coded as (anemic & normal) was examined in two groups. This variable can be represented in tables by: Extra Midterm

a) Mean and standard deviation

b) Median and range

c) Number and percent

d) Variance

e) Ratio

25. The best summary measure for age variable in years normally distributed is: Extra Midterm

a) Median

b) Mean

c) Mode

d) Frequency

e) Percentage

22	23	24	25
D	A	C	B

26. You are preparing a report to present magnitude of smoking hazards according to sex in Dakhalia governorates during the last 12 months. Which graph best describes these data? Extra Midterm

a) Simple bar chart

b) Multiple bar chart

c) Frequency polygon

d) Histogram

e) Pie chart

27. Histogram is used as method of group presentation for: Extra Midterm

a) Qualitative ordinal data

b) Quantitative continuous data

c) Quantitative data discrete

d) Qualitative nominal data

e) Qualitative multinominal data

28. Normally distributed data curve characterized by: Extra Midterm

a) Mean > median > mode

b) Mean < median

c) There is two modes

d) Mean = median

e) There is high value in data

29. The numerator of incidence rate in a chronic disease: Extra Midterm

a) Total number of population examined

b) Number of new cases among contacts of primary cases

c) Number of reported new cases of the disease

d) At risk population

e) Total number of contacts

26	27	28	29
B	B	D	C

30. The number of students in a 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 10000

e) 25 per 100000

30
C

59th Class Qs

1. The study that looks for associations between exposures & outcomes in population rather than in individuals is

a) Case report

b) Case series

c) Ecological study

d) Case control study

e) Epidemic investigation

2. The first step in planning research study is

a) Research design

b) Formulating a research problem

c) Constructing tools for data collection

d) Selecting a sample (size & method)

e) Writing research protocol

3. During one-week duration, a pediatrician described 7 cases of microcephaly. Allmothers reported prenatal infection with Zika virus. What is the type of this study?

a) A case report

b) A case series

c) A cohort study

d) A correlation study

e) An epidemic investigation

4. What is the interpretation of the calculated OR=3 based on a case control study for assessing relationship between heart diseases and high fat diet?

a) High fat diet decreases risk of heart diseases

b) No relation between high fat diet and heart diseases

c) High fat diet increases risk of heart diseases

d) There is no correlation between hypertension & salt intake

e) There is negative correlation between hypertension & salt intake

1	2	3	4
C	B	B	C

5. An investigator takes a sample of healthy individuals, divided into 2 groups, follows heir ongoing solar exposure, and relates that to the subsequent occurrence of skin cancer in each group, the type of the study is

a) Cross sectional

b) Ecological study

c) Case control study.

d) cohort study

e) Case series

6. "Some subjects may drop off" is one of the disadvantages of which one of the following studies?

a) Cohort study

b) Case control study

c) Ecological study

d) Cross sectional study

e) Case series study

7. Which is the best design to study natural history of the disease?

a) Cohort study

b) Case control study

c) Ecological study

d) Cross sectional study

e) Case series study

8. 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

5	6	7	8
D	A	A	C

9. Classical phase on testing drug in human aims to assess

a) Efficacy

b) Pharmacokinetic

c) Effectiveness

d) Long term side effects

e) Lethal dose (LD50)

10. 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

11. Multiphasic screening referred to

a) Application of two or more tests at the same time.

b) Applied to wide geographical area

c) Done in determined time period

d) Screening tests done irrespective they have risk or not

e) Tests applied on high risk individuals

12. Which of the following is qualitative variable?

a) Greatening in blood (mg/ dl)

b) Serum cholesterol (mg/dl)

c) Weight(kg)

d) Gender

e) Celsius temperature scale

13. Which of the following studies can be used to study the risk factors of a rare form of cancer?

a) Prospective cohort

b) Cross-sectional

c) Experimental

d) case-control

e) Case series

9	10	11	12	13
C	C	A	D	D

14. Out of 11 births in a hospital, 5 babies weighed over 2.5 kg. What value does 2.5 represent? Extra Midterm

a) Mean

b) Median

c) Mode

d) Standard deviation

e) Range

15. The measure of central tendency that can be used for all types of variables Extra Midterm

a) Mean

b) Mean & mode

c) mode

d) Median

e) Mode & median

16. Mean is 230 & SD = 10, then 95 of data lies between Extra Midterm

a) 210-250

b) 250-290

c) 290-330

d) 330-370

e) 220-240

17. Best way to plot the change of prevalence of disease over time is Extra Midterm

a) Histogram

b) Line chart

c) Scatter diagram

d) Frequency polygon

e) Pie chart

18. which of the following is the nominator of proportionate death rate? Extra Midterm

a) Total number of deaths of a specific cause in a certain year and locality

b) Overall deaths in a certain year and locality

c) Males' deaths in a certain year and locality

d) Females' death in a certain year and locality

e) Estimated mid-year population at same year and locality

14	15	16	17	18
B	C	A	B	A

19. Which of the following refers to infant mortality? Extra Midterm

a) Death at the age from I to 4 years

b) Death at less than one year of age

c) Death at more than 4 years

d) Death at the age from 4 to 10 years

e) Death at more than 10 years

20. Which of the following is a mortality statistic! Extra Midterm

a) Incidence rate

b) Prevalence rate

c) Crude death rate

d) Crude birth rate

e) Attack rate

21. Which of the following studies can be used to calculate Odds ratio?

a) Case control study

b) Descriptive Study

c) Cohort study

d) Experimental study

e) Cross sectional study

22. The pie chart is used when Extra Midterm

a) Data is continuous and normally distributed

b) Data is continuous and non-normally distributed

c) Categorical variable with total number = 100%

d) Categorical variable and total > 100%

e) Categorical variable and total < 100%

23. The first step in any experimental design is

a) Comparing results of both groups.

b) Selection of study population.

c) Getting informed consent.

d) Allocation of subjects to experimental and control group

e) Analysis of the results

19	20	21	22	23
B	C	A	C	B

24. Which of the following is characteristic of reliable test?

a) Cost effective test

b) Give same values when repeated

c) Least time consuming

d) Non-painful test

e) Precise and valid test

25. Which of the following has acute respiratory infections and diarrhea as the most important causes? Extra Midterm

a) Prematurity

b) Children from 1 to 4 years mortality

c) Miscarriage

d) Still birth

e) Abortion

26. A group of patients enrolled in a trial had a normal distribution for weight. The mean weight of the patients was 80 kg. For this group, the SD was calculated to be 5 kg. Which of the following sentences best describes distribution of the above data? Extra Midterm

a) 68% of data lies between 70 &90 kg

b) 99% of data lies between 75 &85 kg

c) 68% of data lies between 75 & 85 kg

d) 95% of data lies between 75 & 85 kg

e) All data lies between 75 & 85 kg

27. The group that receives the experimental treatment is the

a) Independent group

b) Participant group

c) Control group

d) Standard group

e) Experimental group

24	25	26	27
B	B	C	E

28. A survey study was conducted on a sample of residents who were graduated from medical school during the last 5 years. It includes a random 10% of the graduates from each of the five classes were interviewed. The sampling technique was:

a) Simple random sample

b) Systematic random sample

c) Stratified random sample

d) Two stage random sample

29. The graph that can be used to plot levels of blood pressure that are divided into intervals of 5mmHg (70-74, 75-79, 80-84, etc.... is: Extra Midterm

a) Pie chart

b) Line chart

c) Bar chart

d) Histogram

30. If the following value "0,3,7,9,4,10,70,69" is a set of data, the best measure of central tendency is: Extra Midterm

a) Mean

b) Mode

c) Median

d) Range

31. The squared standard deviation is called: Extra Midterm

a) Range.

b) Standard error

c) Z-score

d) Variance

e) Mean deviation

32. The normal distribution curve is determined by If hypertension is coded in a set of data as (yes /no), variable is typed as: Extra Midterm

a) Mean and sample size

b) Range and sample size

c) Range and standard deviation

d) Mean and standard deviation

28	29	30	31	32
C	D	C	D	D

33. Standard deviation is a statistical measure used to assess: Extra Midterm

a) Difference of significance in qualitative data

b) Difference of significance in quantitative data

c) Dispersion or spread of values around the mean

d) Central tendency of the values

34. One thousand randomly selected men from a primary health center, have a mean hemoglobin level of 14 gm/dl and a standard deviation of 1 gm/dl. Assuming normal distribution, how many persons have hemoglobin level between 12-16gm/dl? Extra Midterm

a) 500 men

b) 680 men

c) 950 men

d) 997 men

e) 1000 men

35. P-value < 0.05 means: Extra Midterm

a) Non-significant result and reject null-hypothesis

b) Significant result and accept null hypothesis

c) Significant result and reject null hypothesis

d) Non-significant result and accent null hypothesis

36. Cancer staging is :

a) An ordinal variable

b) A nominal variable

c) A continuous variable

d) A discrete variable

37. A new test was developed for screening blood donors for HIV, a group of the non-diseased was tested positive. This type of error is called:

a) True positive

b) False positive

c) True negative

d) False negative

33	34	35	36	37
C	C	C	A	B

38. In a population of 100 females in the age group of 15-45, the mean systolic BP was found to be 120. In a normal curve distribution, the number of people who would have an average BP above 120 will be: Extra Midterm

a) 25

b) 50

c) 75

d) 95

e) 85

39. A graphical presentation of the relationship between two quantitative variables is called: Extra Midterm

a) Cartogram

b) Pie chart

c) Scatter diagram

d) Histogram

e) Bar chart

40. In a study on 500 cases of a disease & 500 controls, the suspected risk factor was found in 400 cases & 100 of the controls. The incidence of disease in the persons with risk factor is:

a) 80%

b) 40%

c) 20%

d) Cannot be computed from given data

41. Which of the following is an example of incidence?

a) Hypothyroidism is present in 1-4% of the Egyptian population.

b) New cases of carcinoma of the cervix in the United States is 4/100.000 women

c) Depression is found in 5-10% of patients in primary care practice

42. Cross sectional studies are not useful for studying:

a) Chronic diseases

b) Communicable diseases

c) Diseases with seasonal variation

d) Diseases with geographical variation

38	39	40	41	42
B	C	D	B	C

43. In which study design only people who are free from disease are included:

a) Case control

b) Case series

c) Cross sectional

d) Cohort

44. A research team wants to investigate the prevalence of periodontitis among patients with increased blood glucose level attending oral medicine clinics. The patients subjected to clinical oral examination with taking blood samples for testing blood glucose. What is the type of this study:

a) Case control

b) Cross sectional

c) Correlational

d) cohort

45. During one-week duration a pediatrician described 7 cases of microcephaly. All mothers reported prenatal infection with zika virus. Type of study:

a) An epidemic investigation

b) Case series

c) Correlation study

d) Case report

46. the smoking history of pregnant women is taken in the antenatal period. Mothers were followed up till delivery to correlate the smoking with the birth weight, this study would be an example of:

a) Clinical trial

b) Case control

c) Cohort study

d) Cross sectional

43	44	45	46
C	B	B	C

60th Class Qs

1. During one-week duration, a pediatrician described 7 cases of microcephaly .A11mothers reported prenatal infection with Zika virus. What is the type of this study?

a) A case report

b) A case series

c) A cohort study

d) A correlation study

e) An epidemic investigation

2. An investigator takes a sample of healthy individuals, divided into 2 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) Cross sectional

b) Ecological study

c) Case control study.

d) cohort study

e) Case series

3."Some subjects may drop off' is one of the disadvantages of which one of the following studies?

a) Cohort study

b) Case control study

c) Ecological study

d) Cross sectional study

e) Case series study

4. The group that does not receive the experimental treatment is the…….

A. Experimental group

B. Control group

C. Treatment group

D. Independent group

E. Standard group

1	2	3	4
B	D	A	B

5.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

6. 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

7. Multiphasic screening referred to

a) Application of two or more tests at the same time.

b) Applied to wide geographical area

c) Done in determined time period

d) Screening tests done irrespective they have risk or not

e) Tests applied on high risk individuals

8. What is the interpretation of the calculated OR=3 based on a case control study for assessing relationship between heart diseases and high fat diet?

a) High fat diet decreases risk of heart diseases

b) No relation between high fat diet and heart diseases

c) High fat diet increases risk of heart diseases

d) There is no correlation between hypertension & salt intake

e) There is negative correlation between hypertension & salt intake

9. Which of the following is qualitative variable?

a) Creatinine in blood (mg/ dl)

b) Serum cholesterol (mg/dl)

c) Weight(kg)

d) Gender

5	6	7	8	9
C	C	A	C	D

e) Celsius temperature scale

10. Out of 11 births in a hospital, 5 babies weighed over 2.5 kg. What value does 2.5 represent? Extra Midterm

a) Mean

b) Median

c) Mode

d) Standard deviation

e) Range

11. The measure of central tendency that can be used for all types of variables… Extra Midterm

a) Mean

b) Mean & mode

c) mode

d) Median

e) Mode & median

12. Mean is 230 & SD = 10, then 95% of data lies between….. Extra Midterm

a) 210-250

b) 250-290

c) 290-330

d) 330-370

e) 220-240

13. Which of the following studies can be used to study the risk factors of a rare form of cancer?

A. Prospective cohort

B. Cross-sectional

C. Experimental

D. Case-control

E. Case series

10	11	12	13
B	C	A	D

14. Best way to plot the change of prevalence of disease over time is…… Extra Midterm

a) Histogram

b) Line chart

c) Scatter diagram

d) Frequency polygon

e) Pie chart

15. Which of the following refers to infant mortality? Extra Midterm

a) Death at the age from I to 4 years

b) Death at less than one year of age

c) Death at more than 4 years

d) Death at the age from 4 to 10 years

e) Death at more than 10 years

16. Which of the following is the denominator of maternal mortality rate? Extra Midterm

a) All the population

b) females in all ages

c) females from 15to 49 years old

d) All females before menopause

e) females more than 30

17. Which of the following studies can used to calculate Odds ratio ?

A. Case control study

B. Descriptive study

C. Cohort study

D. Experimental study

E. Cross sectional study

14	15	16	17
B	B	C	A

18. Which of the following is the numerator of proportionate death rate? Extra Midterm

A. Total number of deaths of a specific cause in a certain year and locality

B. Overall deaths in a certain year and locality

C. Males deaths in a certain year and locality

D. Females deaths in a certain year and locality

E. Estimated mid-year population at same year

19. Which of the following is characteristic of reliable test?

a) Cost effective test

b) Give same values when repeated

c) Least time consuming

d) Non-painful test

e) Precise and valid test

20. Regarding phases of testing new agent, which 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(100-200)

D. Phase 4: post-marketing studies

E. Phase one is the classical phase

21. The pie chart is used when…… Extra Midterm

A. data is continuous and normally distributed

B. data is continuous and non normally distributed

C. categorical variable with total number=100%

D. categorical variable and total >100%

E. categorical variable and total 100%

22. In a double-blind study,……

A. subjects are unaware of whether they are in the experimental or control group

B. subjects and the observer are unaware of the subjects group allocation

C. subjects, the observer and data analyst are unaware subjects group allocation.

D. subjects and data analyst are unaware subjects group allocation

E. no one is aware subjects group allocation

18	19	20	21	22
A	B	D	C	B

23. The first step in planning research study is……

a) Research design

b) Formulating a research problem

c) Constructing tools for data collection

d) Selecting a sample (size & method)

e) Writing research protocol

24. The study that looks for associations between exposures & outcomes in population rather than in individuals is……

a) Case report

b) Case series

c) Ecological study

d) Case control study

e) Epidemic investigation

25. You are preparing a report to present magnitude of occupational hazards (physical. chemical biological) according to job description (physicians-nurses-technical jobs) is health care workers. Which graph best describes these data? Extra Midterm

A)Frequency polygon

B)Hiongram

C)Multiple bar chart

D)Pie chart

E)Simple bar chart

26. Reliable test is the test characterized by:

A)cost effective test

B)give same values when repeated

C)least time consuming

D)non-painful test

E)precise and valid test

23	24	25	26
B	C	C	B

27. One hundred patient with cancer lung were matched for age and sex with 200 control group . among cases with cancer 50 cases were smoker and among the control group 20 only were smokers the calculated odds ratio will be ?

A)2

B)4

C)6

D)8

E)10

28. What is the first step in planning for research study?

A) Constructing tools for data collection.

B) Designing the research.

C)Formulating a research problem.

D)Selecting a sample size and method.

E)Writing research protocol.

29. What is true among given data 20, 31, 31, 31, 25, 28, 35 , 38, 31 ? Extra Midterm

A) Maximumn is 28

B) Mean is 31

C) Median is 15

D) Mode is 15

E)Range is 20-38

30. A study of cancer colon in relation to fat consumption of people based on already available data obtained from the entire population is called:

A) Case control study.

B) Case report.

C) Cross-sectional study.

D)Ecological study.

E) Experimental study.

27	28	29	30
B	C	E	D

45. The summary measure for smoking status (smoker-nonsmoker) in group of Covid 19 patients is

Extra Midterm

A) Frequency & percent

B) Mean & standard deviation

C) Median & maximum

D) Median &range

E) Range & standard deviation

46. Which of the following is the best method to control confounding factors before you carry out case-control study to measure the association between alcohol use and lower respiratory tract infections?

A) Matching

B) Multivariate modelling

C)Randomization

D)Restriction

E)Stratification

47. Which of the following is the retrospective form of analytic studies?

A)Case control study

B)Case series

C)Correlational study

D) Experimental study

E) Longitudinal study

48. Which of the following is correct about double-blind study:

A)No one is aware of group allocation

B)Subjects and data analyst are unaware of group allocation

C)Subjects and the observer are unaware of group allocation

D)Subjects are unaware of whether they are in the experimental or control group study

E)Subjects, the observer and data analyst are unaware of group allocation

45	46	47	48
A	A	A	C

49. Which of the following is true about intervention study ?

B) Can use same drug and same dose at the same group

C)Dose not need control group

D)Inexpensive

E)It runs retrospectively

50. Which of the following refers to neonatal mortality? Extra Midterm

A)Death at less than 1 day

B)Death at less than 28 days

C)Death at less than 3 days

D)Dead at less than 7 days

E)Death at the age from 28 days to 1 year

51. Which of the following is the nominator of proportionate death rate? Extra Midterm

A)Estimated mid-year population at same year and locality

B)Females' death in a certain year and locality

C)Males deaths in a certain year and locality

D)Overall deaths in a certain year and locality

E)Total number of deaths of a specific cause in a certain year and locality

52. Best way to plot the change of prevalence of disease over time is: Extra Midterm

A) Frequency polygon

B) Histogram

C)Line chart

D) Pie chart

E) Scatter diagram

49	50	51	52
A	B	E	C

53. Which of the following can be investigated by using cross sectional study?

Chronic diseases

54. Which one of the following studies can be used to study the risk factors of rare form of cancer ?

Case control

55. Normally distributed data curve is characterized by? Extra Midterm

Mean=mode=median

56. on cohort studt of relatioship between colon cancer and eating processed meat the calcaulated relative risk =2 this mean?

Eating prossed meat increase risk of colon cancer

57. The Hemoglobin level in gm per dl among a group of TB cases is considered:

Quantitative continuous variable

61th Class Qs

1. During three months duration, a physician described 14 cases of cerebral stroke following COVID 19 infection: What is the type of this study?

A. A case report.

B. A case series.

C. A cross sectional study.

D. A correlation study.

E. Experimental study

2. Which of the following is the correct Odds ratio for a case control study that is carried 8uf on Fifty patients with cancer urinary bladder that were matched for age and sex to fifty healthy individuals. Among cases with cancer, 30 cases were smokers, while in healthy group, 5 only were smokers?

A. 0.6

B. 1.5

C. 10

D. 11

E. 13.5

3. Which of the following is among disadvantages of case control study?

A. Can calculate incidence rate

B. Useful in rare exposure

C. Carried out on large samples

D. Time consuming

E. Liable to bias

4. "Some subjects may drop off"" is one of the disadvantages of which one of the following studies?

A. Cohort study

B. Case control study

C. Ecological study

D. Cross sectional study

E. Case series study

Dr/ Dexter

1	2	3	4
B	E	E	A

5. The longitudinal study designs belong to which type of research?

A. Causal research.

B. Exploratory research.

C. Analytical research.

D. Descriptive research.

E. Qualitative research.

6. What is the interpretation of the calculated OR=3 based on a case control study for assessing relationship between heart diseases and high fat diet?

A. High fat diet decreases risk of heart diseases

B. No relation between high fat diet and heart diseases

C. High fat diet increases risk of heart diseases

D. There is no correlation between hypertension & salt intake

E. There is negative correlation between hypertension & salt intake

7. Which is the best design to study natural history of the disease?

A. Case control study

B. Ecological study

C. Cross sectional study

D. Cohort study

E. Case series study

8. Regarding phases of testing new agent, which one of the followings is true?

A. Phase 1: Evaluate a safe dosage range & identify long term side effects.

B. Phase 2: Establish the efficacy of the drug, usually against a placebo.

C. Phase 3: Experimental treatment is given to a larger group of people (100-300).

D. Phase 4: Post-marketing studies, assess long term effects

E. Phase one is the classical phase of randomized controlled trial

5	6	7	8
D	C	D	D

9. A study was conducted to investigate the effect of HIV infection on mortality among people in Kenya with Tuberculosis (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 HIIV negative group. The study type is:

A. case-control study

B. cohort study

C. randomized controlled trial

D. ecological study

E. cross-sectional study

10. Which of the following is true regarding screening of diseases?

A. The purpose of screening is to identify symptomatic cases of disease.

B. The ideal screening test should be a complex test with accurate results

C. Screening is conducted to reduce morbidity and improve survival.

D. A highly specific screening test has low false negatives

E. A highly sensitive screening test has low false positives

11. Which of the following mortality rates have the same denominator? Extra Midterm

A. Proportionate death rate and cause-specific death rate

B. Crude death rate and Sex-specific death rate

C. Age-specific death rate and crude death rate

D. Crude death rate and cause-specific death rate

E. Case fatality rate and cause specific death rate

12. Phenyl-ketonuria screening program identified 85 cases out of total 100 test positives. This would be interpreted as the test has:

A. Sensitivity of 85%

B. positive predictive value of 85%

C. specificity of 15%

D. negative predictive value of 90%

E. accuracy of 15%

9	10	11	12
B	C	D	B

13. The Hemoglobin level in gm per dl among a group of Tuberculosis cases is considered:

A. mixed type variable

B. qualitative nominal variable

C. qualitative ordinal variable

D. quantitative continuous variable

E. quantitative discrete variable

14. You are preparing a report to present magnitude of occupational hazards (physical-chemical-biological) according to job description (physicians-nurses-technical jobs) in health care workers. Which graph best describes these data? Extra Midterm

A. Frequency polygon

B. Histogram

C Multiple bar chart

D. Pie chart

E. Simple bar chart

15. The test of significance used to compare the mean birth weight in two groups of smoking and non-smoking mothers is: Extra Midterm

A. Chi Square Test

B. Independent T Test

C. Fischer Test

D. ANOVA Test

E. Correlation test

16. In a study of the effect of Amoxicillin-Clavulanateon in treatment of acute rhino sinusitis, Cases were randomly assigned to receive the new drug in one group and placebo drug in the other group. What is the type of clinical trial?

A. Preventive

B. Prophylactic

C. Therapeutic

D. Safety trials

E. Risk factor

13	14	15	16
D	C	B	C

Dr/ Dexter

17. In a study carried out in a hospital ward, every 10' admitted patient was included in the sample, which sampling procedure is this?

A. Simple random sampling

B. Stratified random sampling

C. Cluster sampling

D. Systematic random sampling

E. Multi stage random sample

18. If the systolic blood pressure in a population has a mean of 130 mmHg and a median of 150 mmHg, this distribution is termed to be: Extra Midterm

A. Normal distribution

B. Negatively skewed

C. Positively skewed

D. Skewness depending on standard deviation

E. Range of data is 20

19. Which of the following is considered the most important cause of maternal mortality in Egypt?

A. Hemorrhage and infection Extra Midterm

B. Gastric cancer

C. Psychological disorders

D. Autoimmune diseases

E. Cardiovascular diseases

20. An investigator will apply some measurements on his subjects to determine the uncertainty about the effect of different students' learning style. Which of the following elements of research protocol is the most suitable to express that?

A. Research design.

B. Research subjects.

C. Research question.

D. Research hypothesis.

E. Research significance.

17	18	19	20
D	B	A	C

21.Which of the following refers to the study that represent the first step to develop evidence for causal association and good for generating hypotheses about the cause of disease?

A .Cross-section study

B .Experimental study

C. Case control study

D. Cohort study

E. Non randomized trial

22. Multiphasic screening referred to which of the following ?

A. Applied to wide geographical area

B. Application of two or more tests at the same time.

C. Done in determined time period

D. Screening tests done irrespective they have risk or not

E. Tests applied on high risk individuals.

23. Which of the following studies can be used to study the risk factors of a rare form of cancer?

A. Prospective cohort

B. Cross-sectional

C. Experimental

D. Case-control

E. Case series

24. he study that looks for associations between exposures & outcomes in population rather than in individuals, is which of the followings?

A. Case report.

B. Case series.

C. Ecological study.

D. Case control study.

E. Epidemic investigation.

21	22	23	24
A	B	D	C

25. Which of the following is true about case-control study?

A. One of descriptive studies

B. Can measure prevalence rate of disease

C. Allows the study of several risk factors.

D. Best study to calculate incidence rate

E. Suitable for rare exposure

26. The best measure of central tendency for this data set "0,3,7,9,4,370" is: Extra Midterm

A. Mean

B. Mode

C. Median

D. Standard deviation

E. Variance

27. An investigator takes a sample of healthy individuals, divided into two groups according to past history of exposure to Covid 19, They were followed for occurrence of embolism manifestation for 2 years post Covid, the type of the study is which of the following?

A. Cross sectional

B. Ecological study

C. Case control study.

D. cohort study

E. Case series

28. Which of the following is the essential criterion for numerator while calculating post neonatal mortality rate? Extra Midterm

A. Deaths less than or equal to I year of age.

B. Deaths between 28 days to I year of age.

C. Deaths less than or equal to 2 years of age

D. Deaths less than or equal to 28 days of age.

E. Death at the age from 1 to 4 years.

25	26	27	28
C	C	D	B

29. A physician conducted a survey to study work stress on workers in Mansoura general hospital. Workers were classified into doctore nurses, laboratory technicians,pharmacists and secretary works and then simple random sample was taken from each category,

Which of the following best describe this sampling method?

A. Simple random sample

B. Systematic random sample

C. Cluster sample

D. Stratified random sample

E. Multi stage random sample

30. Which of the following is an advantage of a cohort study ?

A. Cheap & quickly done.

B. Does not require large samples.

C. Useful in studying rare exposure.

D. Study several risk factors.

E. Can estimate odds ratio

31. What is the most suitable disease that can be investigated using the cross-sectional study ?

A. Rare.

B. Chronic.

C. Highly fatal.

D. Short duration.

E. Seasonal variation.

32. Which of the following criteria can be detected in preclinical trials?

A. Effectiveness

B. Efficacy

C. Long term side effects

D. Teratogenic effects

E. Appropriate dose

29	30	31	32
D	C	B	D

33. Which of the following characterize intervention studies?

A. Doesn't need a control group

B. It runs retrospectively.

C. Inexpensive

D. Require a small sample size

E. Allocate groups randomly

34. A football player in a national club recently collapsed and died from a previously undiagnosed hypertrophic cardiomyopathy. A screening program for hypertrophy cardiomyopathy in the national club with ECGs for all players yielded the following

What is the positive predictive value for the ECG?

A. 1/2

B. 1/21

C. 2/807

D. 785/805

E. 785/786

ECG	Hypertrophic cardiomyophathy		Total
	Present	Absent	
Postive	1	20	21
Negative	1	785	786
Total	2	805	807

35. Based on a cohort study for relationship between colon cancer and eating processed meat, the calculated relative risk= 2, this means:

A. Eating processed meat not a definite risk of colon cancer

B. No relation between eating processed meat and colon cancer

C. Eating processed meat decreases risk of colon cancer

D. This study is a descriptive retrospective study.

E. Eating processed meat had Two times susceptibility of colon cancer

36. A study was conducted to assess needle stick injury as a risk factor for acute hepatitis C virus (HCV) infection in Egypt: a group of patients were age and gender matched to a group of control. The calculated odds ratio equal 23 this means which of the followings?

A. Needle stick injury is not a risk factor for HCV at all.

B. No association between acute HCV and needle stick injury,

C. This study is prospective observational study

D. Incidence rate of acute hepatitis C infection =23.1%

E. HCV infection was associated with frequent needle stick injury.

33	34	35	36
E	B	E	E

37. If neither the experimenter nor the participant knows which experimental condition the participant has been assigned to ,this is known as

A. Matching condition.

B. Demand characteristics.

C. Double blind

D. Standardization

E. Single blind

38. A study was done to investigate an outbreak of meningococcal meningitis in a city with 80,000 populations. A total of 700 cases were recorded at the local hospital during a period of one week and 28 deaths wore recorded among the admitted patients.

Which of the following is the calculated case fatality rate: Extra Midterm

A. 4%

B. 7%

C. 8%

D. 16%

E. 28%

39. Which of the following is the denominator of maternal mortality rate? Extra Midterm

A. All the population

B. Females in all ages

C. All females before menopause

D. Females from 15 to 49 years old

E. Females more than 30 years old

40. Which one of the following is quantitative continuous variable?

A. Body mass index in Kg/m2

B. Body mass index (Low weight, normal, over weight, obese)

C. Diabetes (yes-no)

D. Cancer stages (0,1,2,3,4)

E. Pain severity (mild, moderate, severe)

37	38	39	40
C	A	D	A

41. Screening test is useful when:

A. Prevalence of the disease is low in the community

B. Early detection lead to favorable outcomc

C. The disease has a short latent period

D. There is limited resources for diagnosis and treatment

E. The cost of screening exceeds the benefits of early diagnosis

42. The fasting blood glucose level for a group of diabetics is found to be normally distributed with a mean of 105 mg per 100 ml of blood and a standard deviation of 10 mg per 100 ml of blood. From this data it can be inferred that approximately 95% of diabetics will have their fasting blood glucose levels within the limits of which of the followings? Extra Midterm

A. 75 and 135 mgs

B. 85 and 125 mgs

C. 95 and 115 mgs

D. 65 and 145 mgs

E. 60 and 110 mgs

43. A study about the association between cannabis abuse and occupational injuries revealed that p value was (0.3). What is the interpretation of these results? Extra Midterm

A. Significant results, null hypothesis is accepted

B. Significant results, null hypothesis is rejected

C. Study hypotheses are both rejected

D. Non-significant results, null hypothesis is rejected

E. Non-significant results, null hypothesis is accepted

44. Best way to plot the change of prevalence of disease over time is: Extra Midterm

A. Histogram

B. Line chart

C. Scatter diagram

D. Frequency polygon

E. Pie chart

41	42	43	44
B	B	E	B