Q1

Bias is best defined as:

A. A random error in measurement

B. A systematic difference between study results and the true situation

C. An error caused only by confounders

D. A statistical mistake

E. A problem due to small sample size

Q2

Bias can be introduced at which stage of research?

A. Study design only

B. Data collection only

C. Data analysis only

D. Publication only

E. All stages of the research process

Q3

Which of the following best describes selection bias?

A. Incorrect measurement of exposure

B. Preferential publication of positive results

C. Study participants are not representative of the target population

D. Incorrect data analysis

E. Observer expectations affecting results

Q4

Ascertainment bias occurs when:

A. Results are selectively published

B. Samples are not randomly selected from the population

C. Participants forget past exposures
D. Measurement tools are poorly calibrated
E. Investigators are aware of treatment groups

Q5
Attrition bias is mainly caused by:
A. Use of Likert scales
B. Funding sources
C. Loss to follow-up in longitudinal studies
D. Recall errors
E. Data entry mistakes

Q6
Response bias refers to:
A. Instrument calibration errors
B. Differences between those who participate and those who do not
C. Misdiagnosis of disease
D. Journal preference for positive results
E. Failure to control confounders

Q7
Survivorship bias occurs when:
A. Only subjects who survive long enough are included in the study
B. Data are collected retrospectively
C. Exposure is underreported
D. Funding affects data interpretation
E. Outcomes are misclassified

Q8
Underreporting smoking or alcohol intake by participants is an example of:
A. Selection bias
B. Measurement bias
C. Recall bias
D. Funding bias
E. Central tendency bias

Q9
Central tendency bias is most likely to occur when using:
A. Cohort studies
B. Case–control studies
C. Likert scales
D. Random sampling
E. Regression models

Q10
Using a miscalibrated blood pressure cuff that consistently overestimates readings leads to:
A. Misclassification bias
B. Measurement bias
C. Reporting bias
D. Observer bias
E. Selection bias

Q11
Misclassification bias occurs when:
A. Only positive results are published
B. Exposure or outcome is measured imprecisely

C. Individuals are incorrectly categorized regarding exposure or disease
D. Participants drop out of the study
E. Randomization fails

Q12

Observer bias is also known as:
A. Recall bias
B. Assessment bias
C. Reporting bias
D. Publication bias
E. Attrition bias

Q13

Reporting bias occurs when participants:
A. Are lost to follow-up
B. Are incorrectly classified
C. Give answers they believe are expected or socially acceptable
D. Are selected non-randomly
E. Have incomplete medical records

Q14

Funding bias refers to:
A. Errors caused by poor study design
B. Influence of financial sponsors on study outcomes or reporting
C. Failure to randomize participants
D. Loss of participants during follow-up
E. Measurement inaccuracies

Q15
Publication bias means that:
A. Large studies are favored over small ones
B. Studies with positive results are published more frequently
C. Only randomized studies are published
D. Data analysis is incorrect
E. Confounders are ignored

Q16
A confounder must be:
A. Associated only with the exposure
B. Associated only with the outcome
C. Associated with both exposure and outcome
D. Part of the causal pathway
E. A random variable

Q17
Which method helps control confounding during study design?
A. Stratification
B. Multivariable regression
C. Randomization
D. Data validation
E. Blinded analysis

Q18
Why should variables on the causal pathway NOT be adjusted for?
A. They are difficult to measure

B. They reduce sample size
C. They are not related to the outcome
D. They block part of the true causal effect
E. They increase random error

1.B
2.E
3.C
4.B
5.C
6.B
7.A
8.C
9.C
10.B
11.C
12.B
13.C
14.B
15.B
16.C
17.C
18.D