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SET 1: Study MCQs (Memorization-focused)

Q1 (Memorization)
Bias is best defined as:
A. Random error due to chance
B. A systematic difference between study results and the true situation
C. An unavoidable error in all studies
D. A statistical adjustment error
E. Lack of sample size

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Q2 (Memorization)
Bias can be introduced at which stage of research?
A. Study design only
B. Data analysis only
C. Publication only
D. All stages of the research process
E. Only during data collection

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Q3 (Memorization)
All of the following are types of bias EXCEPT:
A. Selection bias
B. Information bias
C. Measurement bias
D. Funding bias
E. Random error

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Q4 (Memorization)
Selection bias occurs when:
A. Exposure is measured incorrectly
B. Outcome is misclassified
C. Participants are not representative of the target population
D. Results are not published
E. Data analysis is incorrect

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Q5 (Memorization)
Ascertainment bias occurs when:
A. Participants drop out of the study
B. Data collectors know exposure status

C. Sample is not randomly selected from the population

D. Participants underreport behaviors

E. Only positive results are published

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Q6 (Memorization)

Attrition bias is caused by:

A. Incorrect measurement tools

B. Loss of participants to follow-up

C. Poor questionnaire design

D. Selective publication

E. Observer expectations

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Q7 (Memorization)

Survivorship bias occurs when a study includes:

A. Only randomly selected participants

B. Only those who survive long enough to receive an intervention

C. Only participants with severe disease

D. Only participants lost to follow-up

E. Only unexposed individuals

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Q8 (Memorization)

Information bias mainly arises due to:

A. Random sampling error

B. Systematic errors in measuring exposure or outcome

C. Poor funding

D. Selective publication

E. Confounding variables

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Q9 (Memorization)

Using a miscalibrated blood pressure cuff is an example of:

A. Recall bias

B. Central tendency bias

C. Measurement bias

D. Reporting bias

E. Publication bias

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Q10 (Memorization)

A confounder must be associated with:

A. Exposure only

B. Outcome only

C. Exposure and outcome

D. Exposure but not outcome

E. Outcome but not exposure

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SET 2: Exam Simulation MCQs (Understanding & Application)

Q11 (Understanding)

Which scenario best illustrates reporting bias?

A. Doctors use faulty instruments

B. Participants answer in a way they think researchers prefer

C. Researchers publish only positive results

D. Participants are lost to follow-up

E. Exposure is misclassified

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Q12 (Understanding)

A study shows higher survival in patients receiving a new drug, but only patients who lived long enough could receive it. This is an example of:

A. Attrition bias

B. Recall bias

C. Survivorship bias

D. Measurement bias

E. Reporting bias

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Q13 (Understanding)

All of the following are examples of information bias EXCEPT:

A. Recall bias

B. Observer bias

C. Misclassification bias

D. Attrition bias

E. Reporting bias

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Q14 (Understanding)

Central tendency bias most commonly affects studies using:

A. Laboratory tests

B. Imaging techniques

C. Likert scales

D. Medical records

E. Cohort designs

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Q15 (Understanding)

Funding bias may lead to all of the following EXCEPT:

A. Favorable study design

B. Suppression of unfavorable results

C. Sponsor-friendly interpretation

D. Random misclassification

E. Selective comparisons

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Q16 (Understanding)

Publication bias mainly results in:

A. Over-representation of negative studies

B. Over-representation of positive studies

C. Equal reporting of all results

D. Increased random error

E. Reduced sample size

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Q17 (Application)

In a study on smoking and CHD, alcohol consumption is related to both smoking and CHD. Alcohol is acting as a:

A. Mediator

B. Effect modifier

C. Confounder

D. Outcome

E. Selection factor

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Q18 (Application)

Which method controls confounding during the **study design** phase?

A. Stratification

B. Multivariable regression

C. Randomization

D. Statistical adjustment

E. Sensitivity analysis

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Q19 (Application)

Which method should NOT be used to control confounding?

A. Restriction

B. Matching

C. Adjusting for variables on the causal pathway

D. Randomization

E. Stratification

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Q20 (Understanding)

Why should mediators not be adjusted for in analysis?

A. They are unrelated to exposure
B. They are unrelated to outcome
C. They lie on the causal pathway
D. They introduce random error
E. They are confounders

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Correct Answers

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