

## Chapter 2 Exam Review

MDM4U

Jensen

1. State the type of question that has the respondent list the options in order from most important to least

- a) important.
- b) rating
- c) checklist
- d) open
- e) information
- f) ranking

2. State the type of bias that occurs when the chosen sample does not accurately represent the population.

- a) household
- b) response
- c) non-response
- d) sampling

3. State the type of question that has respondents reply in their own words.

- a) open
- b) rating
- c) ranking
- d) closed
- e) information
- f) checklist

4. State the type of random sampling that requires all selections and combinations of selections are equally likely. This type of sampling may not end up being representative of the population, but any deviations are due only to chance.

- a) stratified
- b) multi-stage
- c) simple
- d) clustered
- e) systematic

5. A study that considers individuals from different groups at the same time is called:

- a) longitudinal
- b) cross-sectional
- c) census
- d) time series

**6.** Variables that can not be measured numerically are called:

- a) quantitative
- b) discrete
- c) continuous
- d) qualitative

**7.** Refers to the entire group that is the focus of the study.

- a) population
- b) sample
- c) census
- d) longitudinal

**8.** State the type of random sampling that requires that the population be organized into groups. Randomly groups are chosen and all members in the chosen groups are surveyed.

- a) stratified
- b) multi-stage
- c) simple
- d) clustered
- e) systematic

**9.** State the type of question that asks the respondent about his/her gender and/or age.

- a) rating
- b) ranking
- c) open
- d) information
- e) checklist

**10.** State the type of random sampling that divides the population into groups. Then a simple random sample of the members of each group is taken. The size of the sample for each group is proportionate to the group's size.

- a) stratified
- b) multi-stage
- c) simple
- d) clustered
- e) systematic

**11.** Data that are measured using an infinite set of real numbers.

- a) quantitative
- b) discrete
- c) continuous
- d) qualitative

**12.** State the type of question that asks the respondent how satisfied he/she was with a particular event.

- a) rating
- b) ranking
- c) open
- d) information
- e) checklist

**13.** State the type of question that asks the respondent to place an "x" in as many boxes as it applies to him/her.

- a) rating
- b) ranking
- c) open
- d) information
- e) checklist

**14.** State the type of random sampling that is used when you are sampling a fixed percent of the population. A random starting point is chosen and then you select every  $n$ th individual for your study where  $n$  is the sampling interval.

- a) stratified
- b) multi-stage
- c) simple
- d) clustered
- e) systematic

**15.** Data that is collected from other sources is called:

- a) primary
- b) secondary
- c) continuous
- d) discrete
- e) quantitative

**16.** State the type of question that gives the respondents a limited number of responses from which to choose.

- a) closed
- b) rating
- c) ranking
- d) open
- e) information
- f) checklist

**17.** State the type of random sampling that requires that the population be organized into groups. A random sample of groups is chosen and then a random sample of the members of the chosen groups is taken.

- a) stratified
- b) multi-stage
- c) simple
- d) clustered
- e) systematic

**18.** Data that is collected by the researcher is called:

- a) primary
- b) secondary
- c) continuous
- d) discrete
- e) quantitative

**19.** State the type of study that considers individuals over a long period of time.

- a) longitudinal
- b) cross-sectional
- c) census
- d) time series

**20.** Information gathered from the entire population is called a:

- a) population
- b) sample
- c) census
- d) longitudinal

**21.** Variables that can be measured numerically.

- a) quantitative
- b) discrete
- c) continuous
- d) qualitative

**22.** State the type of bias that occurs when factors in the surveying method influence the result (i.e. poor question design, extraneous information, interviewer tone or attitude)

- a) sampling
- b) response
- c) non-response
- d) household
- e) discrete

**23.** State the type of bias that occurs when one type of respondent is over represented because groupings of different sizes are polled equally.

- a) sampling
- b) response
- c) non-response
- d) household
- e) discrete

**24.** Refers to part of a population selected so as to gain information about the whole population.

- a) population
- b) sample
- c) census
- d) longitudinal

**25.** State the type of bias that occurs when the results are influenced because surveys are not returned.

- a) sampling
- b) response
- c) non-response
- d) household discrete

**26.** State the type of bias that occurs when the chosen sample does not represent the population.

- a) sampling
- b) response
- c) non-response
- d) household
- e) discrete

**27.** Identify the type of bias that might result from each of the following data collection methods.

**a)** A survey designed to see which extra curricular activity should get more funding is given to the King's Christian Collegiate hockey team. All surveys are collected at the end of practice and all members were present.

**Which extra-curricular activity do you consider to be the best? Circle only one.**

Ceramics      **Hockey**      Photography      Strings      Ensemble      Tennis

**b)** A survey is given to 50 male and 50 female students at KCC regarding cell phones in the school. All surveys are collected. There are 310 female students and 250 male students that go to KCC. students.

**c)** A survey is sent home with all students for parents to complete regarding the usage of ipod and mp3 players in the school. The students are to return the survey the following day.

**d)** Mr. Bulthuis conducts 1 on 1 interviews with students at King's to see if they think physical education is important enough to make it mandatory to take each year in high school.

**28.** Identify which sampling method is being used.

**a)** The student parliament Prime Minister decides to survey the KCC student body. Students are organized into groups by grade and then two groups are randomly chosen and all the students in the chosen groups are surveyed.

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**b)** Mr. Jensen decides to survey students about their Mathematical interests. He puts all the students' names in a box and randomly selects 200 names.

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c) The guidance counsellors decide to survey a fixed percent of the grade 9 student body to find out if they have had a positive experience in the first year at KCC. They randomly select a starting point and then they select every 12<sup>th</sup> grade 9 student on an alphabetized attendance roster to be surveyed.

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d) Mr. DeBoer groups the students by homeroom. He randomly selects 10 of the groups and then randomly selects people from each selected group to be surveyed.

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e) Mr. Lee decides to survey students at KCC. He divides the students into groups according to their homeroom. Then a simple random sample of the students in each group is taken. The size of the sample for each group is proportionate to the group's size.

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**29.** Identify the type of question being used in each of the following situations. Each type may only be used once.

a) How satisfied are you with the uniform pieces at KCC?

\_\_\_ very satisfied \_\_\_ satisfied \_\_\_ dissatisfied \_\_\_ very dissatisfied

b) Do you think all students, from grade 9 through to grade 12, should be able to run for a position on the student parliament? Why?

c) Check the appropriate response.

Gender: \_\_\_ female \_\_\_ male

d) Which courses are you presently taking this semester? Check as many as apply.

\_\_\_ Chemistry \_\_\_ Drama \_\_\_ English \_\_\_ Mathematics \_\_\_ Physics

e) Do you think students should be allowed to use a cell phone at school? Check the most appropriate response.

\_\_\_ No \_\_\_ Yes

f) Below is a list of current and previous Prime Ministers of Canada. Please rank them in order of performance in the Prime Minister's position from 1 (excellent) to 4 (not impressed).

\_\_\_ Mr. Chretien \_\_\_ Mr. Harper \_\_\_ Mr. Mulroney \_\_\_ Mr. Trudeau

**30.** List the four criterion for what good questions are:

**31.** List the five things that good questions avoid:

**32.** Explain why each question is not considered a good question. Be very specific.

**a)** Circle one NHL player that you think should make the All-Star team. Keep in mind that Sidney Crosby is currently leading the league in points.

Sidney Crosby

James Reimer

Dion Phaneuf

Nazem Kadri

David Clarkson

**b)** Mr. Hammond asked graduating students if they are not interested in receiving a University information package from U of T?



## Answers

1) F 2) D 3) A 4) C 5) B 6) D 7) A 8) D 9) D 10) A 11) C 12) A 13) E 14) E 15) B

16) A 17) B 18) A 19) A 20) C 21) A 22) B 23) D 24) B 25) C 26) A

27) a) sampling bias – the hockey team does not represent all of the King’s students; response bias – “hockey” being bigger than the other options may influence the results

b) household bias – males are over represented; an equal percent of each group should be surveyed, not an equal number

c) non-response bias – not all surveys will be returned

d) response bias – students may be afraid to give their honest opinion about physical education to the athletic director of the school

28) a) cluster b) simple random c) systematic d) multi-stage e) stratified

29) a) rating b) open c) information d) checklist e) closed f) ranking

30) simple, relevant, specific, readable

31) jargon, abbreviations, negatives, leading respondents, insensitivity

32) a) abbreviation – NHL; leading respondents – information about Crosby is not necessary

b) negatives – the word ‘not’ makes it confusing; abbreviation – U of T