



**UNIVERSITI TUN HUSSEIN ONN
MALAYSIA**

**FINAL EXAMINATION
SEMESTER II
SESSION 2017/2018**

COURSE NAME : RESEARCH AND STATISTICAL
METHODS

COURSE CODE : DAS 20903

PROGRAMME CODE : 2 DAU

EXAMINATION DATE : JUNE / JULY 2018

DURATION : 2 HOURS 30 MINUTES

INSTRUCTION : ANSWER ALL QUESTIONS IN
PART A & PART B AND
ANSWER **TWO (2)**
QUESTIONS IN PART C

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THIS QUESTION PAPER CONSISTS OF **FOURTEEN (14)** PAGES

PART A

For Q1 – Q40, please tick the answer.

- Q1** Research that describes the characteristics of an existing phenomenon is
A. historical
B. ethnographic
C. experimental
D. quasi-experimental
- Q2** Research that test for causal relationships without having full control is
A. historical
B. survey
C. experimental
D. quasi-experimental
- Q3** Research that relate events that have occurred in the past to current events is
A. historical
B. ethnographic
C. experimental
D. quasi-experimental
- Q4** Research that test for true cause and effect relationship is
A. historical
B. ethnographic
C. experimental
D. quasi-experimental
- Q5** Research that examine relationship between two variables is
A. experimental
B. ethnographic
C. survey
D. quasi-experimental
- Q6** Research involves making decisions that involves
I research problem
II population and sample
III instrument
IV data analysis techniques
- A. I, II
B. I, II, III
C. I, II, IV
D. I, II, III, IV

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- Q7** The learning goal in a research is as given below except
- A. able to identify the research problem
 - B. able to design the research problem
 - C. able to refine the research problem
 - D. able to formulate the research problem
- Q8** A research problem is the demarcation of a problem area within a certain context involving as given below except
- A. who
 - B. whose
 - C. what
 - D. why
- Q9** To identify the research problem a researcher should do as given below except
- A. look at the titles
 - B. look at the content
 - C. look at the graphs
 - D. look at review articles
- Q10** Good research questions should be as given below except
- A. important
 - B. clear
 - C. known
 - D. ethical
- Q11** The research questions should be able to influence the
- A. result of the research
 - B. content of the writing
 - C. the format of the writing
 - D. the respondents

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Q12 – Q13 base on Research question below:

Research question : How can we use contextual method to learn Applied Science?
Problem : Students lack in problem solving skills because teaching and learning too dependent on lecture method.
Significance : Important because students need to apply what they learn to their industrial training

- Q12** The classes of problems are
I those in which both data and method necessary for solution are known
II those in which neither the method nor data are known
III those in which neither the method nor data are important
IV those in which both data and method necessary for solution are important
A. I, II
B. I, II, III
C. I, II, IV
D. I, II, III, IV
- Q13** Criteria for selecting a problem is
A. to follow others
B. nearest
C. known
D. researcher Limitation
- Q14** The quality indicators in an achievement test are
I validity
II logical
III clarifying
IV reliability
A. I
B. II
C. II, III
D. I, IV
- Q15** Validity and reliability are achieved by
A. questioning
B. evaluation and refinement of test instrument
C. free association
D. combined approach

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- Q16** An achievement test has content validity because it
- A. has affirmation from an expert
 - B. measures what it is suppose to measure
 - C. is reliable
 - D. constructs a table of specification
- Q17** Quantitative research design
- A. is a means to understand relationship between variables.
 - B. is a means to better understand and change a complex social phenomenon.
 - C. uses a population to test hypothesis concerning a sample.
 - D. uses in-depth studies of a population to guide and support the construction of hypothesis.
- Q18** Qualitative research design
- A. is a means to understand relationship between variables
 - B. is a means to better understand and change a complex social phenomenon
 - C. uses a population to test hypothesis concerning a sample
 - D. uses in-depth studies of a population to guide and support the construction of hypothesis
- Q19** Hypothesis is as given below except
- A. a tentative statement of the expected relationship between two or more variables
 - B. rejected if null hypothesis is accepted.
 - C. serves to make the research objectives/ questions more explicit
 - D. use with operationalised variables
- Q20** A research design refers to as given below except
- A. outline
 - B. hypothesis
 - C. plan
 - D. strategy
- Q21** Research Methodology consist of
- I research instrument
 - II data analysis method
 - III research Design
 - IV conclusion
- A. I, II
 - B. I, II, III
 - C. I, II, IV
 - D. I, II, III, IV

Q22 Research Methodology should answer the following questions:

- I Who are the population and sample?
- II What kind of instruments are used?
- III How valid and reliable are they?
- IV What are the procedures adopted in data gathering?

- A. I, II
- B. I, II, III
- C. I, II, IV
- D. I, II, III, IV

Q23 Research procedure should answer the following questions:

- I What are the materials used?(product-based)
- II What are the procedures adopted in data gathering?
- III What procedures are used for data collection?
- IV What procedures are used to make the product? (product-based project)

- A. I, II
- B. I, II, III
- C. I, II, IV
- D. I, II, III, IV

Q24 Research instruments should answer the following questions:

- I What is the instrument used for data gathering?
- II What is the application used for data modelling?
- III What are the steps adopted in data gathering?
- IV What materials are used to make the product?

- A. I, II
- B. I, II, III
- C. I, II, IV
- D. I, II, III, IV

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- Q25** In Descriptive Statistics,
- A. relational research has as its focus the identification of how changes in one characteristic or variable correspond (or do not correspond) to changes in another characteristic or variable.
 - B. data can take many forms, and when they take numerical form such as scores or frequencies, the usual course of action is to perform and appropriate type of statistical analysis.
 - C. statistics are computed from the sample data; on the basis of these statistics, generalizations to the parameters (population measures) are made.
 - D. statistics are measures of the population and parameters are measures of the sample.
- Q26** In Inferential Statistics,
- A. relational research has as its focus the identification of how changes in one characteristic or variable correspond (or do not correspond) to changes in another characteristic or variable.
 - B. data can take many forms, and when they take numerical form such as scores or frequencies, the usual course of action is to perform and appropriate type of statistical analysis.
 - C. statistics are computed from the sample data; on the basis of these statistics, generalizations to the parameters (population measures) are made.
 - D. statistics are measures of the population and parameters are measures of the sample.
- Q27** In Correlational Statistics,
- A. relational research has as its focus the identification of how changes in one characteristic or variable correspond (or do not correspond) to changes in another characteristic or variable.
 - B. data can take many forms, and when they take numerical form such as scores or frequencies, the usual course of action is to perform and appropriate type of statistical analysis.
 - C. statistics are computed from the sample data; on the basis of these statistics, generalizations to the parameters (population measures) are made.
 - D. statistics are measures of the population and parameters are measures of the sample.
- Q28** Solomon Four-Group design is as following except
- A. subjects randomly assigned to experimental\control groups
 - B. preliminary measurement of DV in one experimental\control pair
 - C. introduction of DV in both experimental conditions
 - D. measurement of DV (assess effects of pretest)



- Q29** Face validity
- A. usually employs two measures of validity; the second checks against the accuracy of the first measure.
 - B. is the type of validity relies basically upon the subjective judgment of the researcher.
 - C. the accuracy with which an instrument measures the factors or situations under study
 - D. is any concept, such as honesty, that cannot be directly observed or isolated.
- Q30** Criterion validity
- A. usually employs two measures of validity; the second checks against the accuracy of the first measure.
 - B. is the type of validity relies basically upon the subjective judgment of the researcher.
 - C. the accuracy with which an instrument measures the factors or situations under study
 - D. is any concept, such as honesty, that cannot be directly observed or isolated.
- Q31** Content validity
- A. usually employs two measures of validity; the second checks against the accuracy of the first measure.
 - B. is the type of validity relies basically upon the subjective judgment of the researcher.
 - C. the accuracy with which an instrument measures the factors or situations under study.
 - D. is any concept, such as honesty, that cannot be directly observed or isolated.
- Q32** Construct validity
- A. is the type of validity relies basically upon the subjective judgment of the researcher.
 - B. usually employs two measures of validity; the second checks against the accuracy of the first measure.
 - C. the accuracy with which an instrument measures the factors or situations under study
 - D. is any concept, such as honesty, that cannot be directly observed or isolated.
- Q33** Nominal variable
- A. possesses an actual, or true, zero point.
 - B. has equal intervals between points o the scale.
 - C. one in which data may be ordered in some way-high to low.
 - D. is just the name of a category and contains no numerical value.

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- Q34** Ordinal variable
- A. possesses an actual, or true, zero point.
 - B. contains an ordered set of responses, or ranks.
 - C. one in which data may be ordered in some way-high to low.
 - D. simplest, and also the lowest, form of measurement.
- Q35** Ratio variable
- A. possesses an actual, or true, zero point.
 - B. contains an ordered set of responses, or ranks.
 - C. one in which data may be ordered in some way-high to low.
 - D. simplest, and also the lowest, form of measurement.
- Q36** Interval variable
- A. possesses an actual, or true, zero point.
 - B. contains an ordered set of responses, or ranks.
 - C. one in which data may be ordered in some way-high to low.
 - D. simplest, and also the lowest, form of measurement.
- Q37** Phenomenology is
- A. a long term investigation of a group/culture, based on immersion and participation in that group.
 - B. a systematic inquiry into an event/a set of related events that aims to describe and explain the phenomenon of interest.
 - C. to learn about the meaning of an experience through dialogue with a person going through the experience.
 - D. a qualitative methodology which derives its name from the practice of generating theory from research which is "grounded" in data.
- Q38** Case study is
- A. a long term investigation of a group/culture, based on immersion and participation in that group.
 - B. a systematic inquiry into an event/a set of related events that aims to describe and explain the phenomenon of interest.
 - C. to learn about the meaning of an experience through dialogue with a person going through the experience.
 - D. a qualitative methodology which derives its name from the practice of generating theory from research which is "grounded" in data.

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- Q39** Ethnography is
- A. a long term investigation of a group/culture, based on immersion and participation in that group.
 - B. a systematic inquiry into an event/a set of related events that aims to describe and explain the phenomenon of interest.
 - C. to learn about the meaning of an experience through dialogue with a person going through the experience.
 - D. a qualitative methodology which derives its name from the practice of generating theory from research which is "grounded" in data.
- Q40** Grounded theory is
- A. a long term investigation of a group/culture, based on immersion and participation in that group.
 - B. a systematic inquiry into an event/a set of related events that aims to describe and explain the phenomenon of interest.
 - C. to learn about the meaning of an experience through dialogue with a person going through the experience.
 - D. a qualitative methodology which derives its name from the practice of generating theory from research which is "grounded" in data.

(40 marks)

PART B

For the variable below, state whether primary or secondary data.

	Data	Answer
Q41	She got the data from an article in the UTHM library.	
Q42	From the Annual General Meeting's report, the number of staff loan money to buy cars is increasing.	
Q43	From the history book, the data show that more than 70% of children did not go to school.	
Q44	Comparing the students' results from Test 1 and Test 2.	
Q45	The respondents' background from the questionnaire.	

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(10 marks)

For the variable below, state whether the quantitative or qualitative data.

	Data	Answer
Q46	The number of vitamin sold every month, in 2014.	
Q47	Temperature of the babies in the hospital.	
Q48	Persian cat, Asian cat, Cyprus cat and others.	
Q49	Height of the lecturers	
Q50	Terengganu, Perak, Penang, Selangor.	

(10 marks)

For the variable below, state whether the quantitative data is discrete or continuous.

	Data	Answer
Q51	The age of animals.	
Q52	The number of days in June.	
Q53	The volume of boxes.	
Q54	The household income of the staff in UTHM.	
Q55	The number of female students.	

(10 marks)

For the variable below, state whether the qualitative is level ordinal or rank ordinal.

	Data	Answer
Q56	Comments from the respondent. (agree, almost agree, disagree)	
Q57	Grade of the apples (A, B, C)	
Q58	Types of Building. (Business, Shopping Mall, Schools)	
Q59	Quality of the cakes. (Good, Satisfactory, Bad)	
Q60	Position in the hostel (Head, Secretary and Treasurer of the dormitory)	

(10 marks)

PART C

Q61 By comparing Example A and Example B, does the researcher begin by identifying a specific problem area?

Example A

Cigarette smoking is the single largest cause of premature and avoidable death and disability in the United States (U.S Surgeon General, 1989). Although rates of adult smoking have been declining since the publication of the 1964 Surgeon General’s Report, epidemiological data suggest that these successes have not uniformly been distributed among the population.

Example B

State and local governments expend considerable resources for research on public health issues. The findings of this research are used to formulate public policies that regulate health-related activities within the broader society. In addition to helping establish regulations, public health agencies attempt to educate the public so that individuals have appropriate information when making individual lifestyle decisions that may affect their health.

Answer : _____

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(10 marks)

Q62 Compare Example C and Example D. Does the researcher establish the importance of the problem area?

Example C

What is the social significance of books such as *Manchild in the Promised Land* (Brown, 1965), *House Made of Dawn* (Momaday, 1968), *One Flew Over the Cuckoo's Nest* (Kesey, 1962), *The Color Purple* (Walker, 1982)...and *Longtime Companion* (Wlodkowski & Rene, 1990)? We believe that each of these works, and many similar ones, seek to improve attitudes toward a stigmatized group — a racial or cultural minority, people with some social stigma, disability, or disease. The strategy used is to induce the audience to feel empathy for one or a few members of the stigmatized group....

Example D

Homework, defined as tasks assigned to students by school teachers that are meant to be performed during nonschool hours (Cooper, 1989, p. 7), is a pervasive teaching strategy. The National Assessment of Educational Progress found that two-thirds of students in 4th, 8th, and 11th grades reported doing homework and the percentage was increasing over time (Anderson et al., 1986). Among 8th graders, the average amount of time spent on homework is about 1 hour each day (Walberg, 1991).

Answer : _____

(10 marks)

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- Q63** (a) Base on Example E, is the introduction an essay that logically moves from topic to topic?

Example E

Based on these findings, state and federal governments have tried to reduce street violent crimes through aggressive law enforcement against drug sellers and users (Popkin, Olson, Lurigio, Gwiasda, and Carter, 1995). In high-crime areas such as public housing projects, aggressive policing and tenant empowerment programs have been temporarily effective in reducing drug selling and drug-related violent and property crimes and in fostering a sense of safety and community improvement among residents (National Institute of Justice 1995b, 1996; Popkin et al. 1995; Sherman, Shaw, and Rogan, 1995).

Answer : _____

(5 marks)

- (b) Base on Example F, has the researcher provided conceptual definitions of key terms?

Example F

Emotional intelligence has been defined as “the **ability** [italics added] to monitor one’s own and others’ emotions, to discriminate among them, and to use the information to guide one’s thinking and actions” (Salovey & Mayer, 1990, p. 189). A number of researchers thus view the capacity to process affective information as a “mental ability” or “aptitude” in the conventional sense.

Answer : _____



(5 marks)

- END OF QUESTION -