FINAL EXAMINATION
FIRST SEMESTER SESSION 2008/2009

CODE/COURSE NAME : QQS3073 / RESEARCH METHODS
DATE : 11 NOVEMBER 2008 (TUESDAY)
TIME : 9.00 – 11.30AM (2 1/2 HOURS)
LOCATION : DSB K.T/WD

INSTRUCTIONS:
1. This book script contains SIX (6) questions in TEN (10) printed pages excluding the cover page.
2. Please answer ALL the questions in the space provided.

MATRIC NO. : ___________________________  ________  ________  ________

(with word)  (with number)

IC.NO. : ___________________________  ________  ________  ________  ________

LECTURER'S NAME : ___________________________

GROUP : ________  TABLE NO.: ________  ________  ________  ________
Question 1  (21 marks)

a. What purpose does a research proposal serve?  (5 marks)

b. In what type of situation is conducting a census more likely than sampling? When is sampling more appropriate than taking a census?  (5 marks)
c. Briefly describe the followings: (6 marks)

i. Target Population

ii. Sampling Frame:

iii. Census:
d. Evaluate the statement of the business problem in the following situation:

An employees’ credit union: Our problem is to determine the reasons why employees join the credit union, to determine members’ awareness of credit union services, and to measure attitudes and beliefs about how effectively the credit union is operated.  

(5 marks)

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**Question 2**  (15 marks)

A researcher wishes to compare two restaurants namely Xtrim Pizza and D’lixus Pizza on the following attributes: friendly personnel, fast service, and pleasant atmosphere.  

(15 marks)

i) Design a Likert scale to accomplish this task.
ii) Design a semantic differential to accomplish this task.

iii) Design a graphic rating scale to accomplish this task.
Question 3  (15 marks)

Given are the 5 research questions which could guide you to conduct a good research. Briefly explain each of the questions. (15 marks)

1. What is the problem to be solved?

2. Who cares about this problem and why?

3. What have others done?

4. What is your solution to the problem?

5. How can you demonstrate your solution is a good one?
Question 4  (14 marks)

a. Write two advantages and two disadvantages of secondary data.  
   (8 marks)

   Advantages:  
   i) 
   ii) 

   Disadvantages:  
   i) 
   ii) 

b. What is reliability? How does it differ from validity?  
   (6 marks)
Question 5  (20 marks)

a. What is random sampling error. How can we minimize the error?  

(5 marks)

b. Given below is a list of frequently used sampling techniques. Based on the list, answer question (i), (ii), and (iii).

<table>
<thead>
<tr>
<th>Snowball</th>
<th>Quota</th>
<th>Simple Random</th>
<th>Convenience</th>
<th>Systematic</th>
<th>Stratified</th>
<th>Cluster</th>
<th>Judgment</th>
</tr>
</thead>
</table>

i) From the list given, select and write in the columns of TABLE 1 the sampling techniques which correspond to the two types of sampling (probability and non probability). All the techniques must be selected.  

(6 marks)

TABLE 1. Sampling Techniques.

<table>
<thead>
<tr>
<th>PROBABILITY SAMPLING</th>
<th>NON PROBABILITY SAMPLING</th>
</tr>
</thead>
</table>
ii) A sampling procedure in which initial respondents are selected by probability methods, and then additional respondents are obtained from information provided by initial respondents, is

(2 marks)

iii) A sample in which the initial starting point is selected at random, and then every 25th number on the list is selected, is

(2 marks)

c. You are asked to conduct a research on the attitudes of XXX University students on the ranking of the university. Given that the population of the university students of 10000 is made up College A - 4000, College B - 3500, College C - 2500. You are required to collect a sample of 500 for the research. If you want to adopt the proportional stratified sampling technique for this research, briefly explain how do you go about selecting the samples?

(5 marks)
Question 6  (15 marks)

TABLE 2: Employee Data.

<table>
<thead>
<tr>
<th>Obs</th>
<th>Gender</th>
<th>Age (Years)</th>
<th>Education level</th>
<th>Current Salary (RM)</th>
<th>Beginning Salary (RM)</th>
<th>IQ level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>m</td>
<td>48</td>
<td>3</td>
<td>4,500</td>
<td>2,500</td>
<td>101</td>
</tr>
<tr>
<td>2</td>
<td>m</td>
<td>42</td>
<td>3</td>
<td>3,700</td>
<td>2,500</td>
<td>104</td>
</tr>
<tr>
<td>3</td>
<td>f</td>
<td>55</td>
<td>2</td>
<td>4,000</td>
<td>1,700</td>
<td>98</td>
</tr>
<tr>
<td>4</td>
<td>f</td>
<td>32</td>
<td>3</td>
<td>3,000</td>
<td>2,800</td>
<td>108</td>
</tr>
<tr>
<td>5</td>
<td>m</td>
<td>42</td>
<td>1</td>
<td>2,000</td>
<td>900</td>
<td>92</td>
</tr>
<tr>
<td>6</td>
<td>m</td>
<td>40</td>
<td>4</td>
<td>6,000</td>
<td>3,000</td>
<td>118</td>
</tr>
<tr>
<td>7</td>
<td>m</td>
<td>33</td>
<td>3</td>
<td>3,800</td>
<td>2,800</td>
<td>110</td>
</tr>
<tr>
<td>196</td>
<td>f</td>
<td>50</td>
<td>2</td>
<td>3,800</td>
<td>1,800</td>
<td>106</td>
</tr>
<tr>
<td>197</td>
<td>f</td>
<td>38</td>
<td>2</td>
<td>2,700</td>
<td>1,700</td>
<td>110</td>
</tr>
<tr>
<td>198</td>
<td>f</td>
<td>45</td>
<td>1</td>
<td>2,100</td>
<td>1,000</td>
<td>100</td>
</tr>
<tr>
<td>199</td>
<td>f</td>
<td>31</td>
<td>1</td>
<td>1,500</td>
<td>1,000</td>
<td>108</td>
</tr>
<tr>
<td>200</td>
<td>m</td>
<td>55</td>
<td>3</td>
<td>5,500</td>
<td>2,500</td>
<td>112</td>
</tr>
</tbody>
</table>

With reference to TABLE 2, answer question (i), (ii), (iii), (iv), and (v).

i) Determine the types of scale: nominal, ordinal, interval or ratio for each of the following variables:

(5 marks)

Gender: ____ Age: ___ IQ level: ___

Current Salary: ___ Education level: ___

ii) If you are asked to test whether Gender and Education Level is dependent or otherwise, what is the most suitable statistical method to suggest? State why do choose the method?

(4 marks)
iii) What is the most suitable statistical method to determine the strength of the relationship between Current Salary and IQ level?  

(2 marks)

iv) What is the most suitable statistical test to use when testing for the difference of means between Current Salary and Beginning Salary, given that the data for the two variables are normally distributed?  

(2 marks)

v) What is the most suitable statistical test to use when testing for the difference of means between genders for Beginning Salary? Beginning Salary is normally distributed.  

(2 marks)

~END OF QUESTIONS~

10