



University of Kelaniya – Faculty of Social Sciences
Academic Year 2015/2016
Bachelor of Arts (Special) Degree First Year
Second Semester Examination, January 2018

Social Statistics
SOST 22444 - Computer Application for Social Statistics

Answer Four (04) Questions only

No. of Questions: 07

Time: 03 hours

01. a. Briefly explain the Tables, Queries, Forms and Reports in MS Access. (10 marks)
- b. what are the benefits of using Primary Key in Ms Access ? (05 marks)
- c. Explain the important of knowledge on MS Access for Statistics. (05 marks)
02. a. Explain the differences between application software of SPSS and MS Excel. (04 marks)
- b. Discuss the differences between followings
- i. Bar charts and Line charts
 - ii. Output Window and Data Editor Window in SPSS
 - iii. Formula Bar and Name Box in MS Excel
 - iv. Missing Value and Value Label in SPSS
- (04 marks x 4)

05. One of the managers in a certain company collected employees data from 10 sample units. Considering the following information answer the questions below.

- i. The manager entered his data into excel sheet and its data range was A1 : E11.
- ii. There were five (5) variables in the data set as Emp_No, Gender, Age, Monthly_Salary and Working_Department.
- iii. The data have been entered into the columns as the order of the variable given in number ii.
- iv. Variable names were included in the first row.
- v. No missing values in the data set.

a. Write the correct excel functions (formula) to get answer for the following requirements.

- i. The total monthly salary
- ii. The mode of Age
- iii. The mean of the salary
- iv. The summation of Age

(04 marks x 4)

b. If he wants to find the number of employees in the data set write one of the excel functions he should use.

(04 marks)

07. a. A researcher asked a question that "Are you a smoker or not ?" from 60 university students in UK and their answers were as follows.

| Gender | Smoking | |
|--------|---------|----|
| | Yes | No |
| Male | 20 | 8 |
| Female | 2 | 30 |

- i. Analytically describe the data on the table. (05 marks)
- ii. The following table is the SPSS output of Chi-Square test on gender and smoking (yes or no). Interpret the result. (05 marks)

| | Value | df | Asymp. Sig. (2-sided) | Exact Sig. (2-sided) | Exact Sig. (1-sided) |
|------------------------------------|---------------------|----|--------------------------|-------------------------|-------------------------|
| Pearson Chi-Square | 27.319 ^a | 1 | .000 | | |
| Continuity Correction ^b | 24.584 | 1 | .000 | | |
| Likelihood Ratio | 30.393 | 1 | .000 | | |
| Fisher's Exact Test | | | | .000 | .000 |
| Linear-by-Linear Association | 26.864 | 1 | .000 | | |
| N of Valid Cases | 60 | | | | |

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.27.

b. Computed only for a 2x2 table