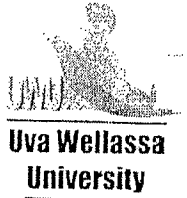


Uva Wellassa University

Faculty of Management

Degree of Bachelor of Business Management in Hospitality Tourism and Event Management
SECOND YEAR SECOND SEMESTER EXAMINATION, DECEMBER/JANUARY 2016/17



HTE 232-2 Quantitative Techniques



Part C: Essay Questions

Marks Allocation : 40 Marks

1.

- a) Define the following terms and describe how they may be used in analyzing tourism statistics: Pearson's correlation and Regression. (05 Marks)
- b) What is meant by association of attributes? Explain briefly the different methods of measuring association between attributes. (05 Marks)
- c) The manager of the ABC fast-food restaurant is interesting to know the relationship between ethnic origins and food preferences. The number of people who are preference of spicy food in different ethnic origins is given below.

Ethnic origins	Preferred Brand	
	Spicy Food	Not Spicy Food
Asians	70	30
European	25	65
Sri Lankans	60	40

Does this evidence suggest that there is an association between ethnic origin and food preference at 5% level significance? (10 Marks)

(Total- 20 Marks)

2.

- a) A certain pen has been designed so that true average writing lifetime under controlled conditions (involving the use of a writing machine) is at least 12 hours. Production will need to be stopped to readjust the machine that makes the pens, if there is evidence that the average writing lifetime under controlled conditions is less than 12 hours. For a random sample of 37 pens, the sample mean is 11.9 hours with sample standard deviation 0.2 hour.
- i. Find a 95% confidence interval for the average writing lifetime. (5 Marks)
- ii. Test the appropriate hypotheses and advise the company what to do. Use $\alpha = 0.05$ (5 Marks)
- b) The weight of the XYZ chocolate bars is normally distributed with a mean of 130g and standard deviation of 8g. Find the probability that,
- i. the weight of a random selected chocolate bar exceed 135g. (5 marks)
- ii. the weight of a random selected chocolate bar is lie between 125g and 140g. (5 Marks)

(Total - 20 Marks)

