

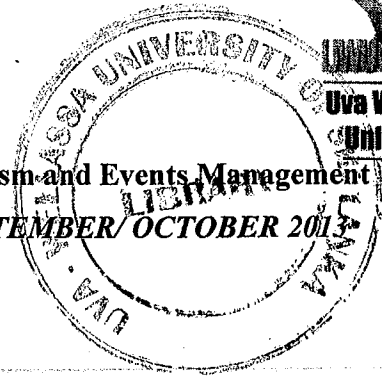
Uva Wellassa University

Faculty of Management

Degree of Bachelor of Business Management in Hospitality Tourism and Events Management

SECOND YEAR SECOND SEMESTER EXAMINATION - SEPTEMBER/OCTOBER 2013

HTE 232 -2 Quantitative Techniques



Part C- Essay Questions

Marks Allocation for Part C: 45 marks

1. Millions of Americans arrange travel plans on the web. A recent survey reported that 77% purchase plan ticket on the web. Suppose the survey based on 1000 respondents. Construct 99%, confidence intervals for the population proportion of Americans who purchase plane tickets on the web.

(10 marks)

2. a. The weight of Scummy chocolate bars is normally distributed with a mean of 120 g and standard deviation of 5g. Find the probability that

- I. the weight of a random selected chocolate bar exceeds 122g.
- II. the weight of a random selected chocolate bar at most 125g.

b. A guest house has two rooms which it hires day by day. It is observed that the demand for a room on a day follows a Poisson distribution with mean 1.5. calculate the probability on a particular day,

- I. Both rooms are vacant.
- II. At least one room is vacant.

(20 marks)

3. The table shows the distribution of the number of vacant rooms at a motel, on week nights.

No. of vacancies	0	1	2	3	>3
Percentage	0.1	0.25	0.35	0.2	0.1

The new motel opens down the road and the manager observed the following distribution for a random sample of 100 week nights.

No. of vacancies	0	1	2	3	>3
Number of nights	3	16	35	25	21

Has a change in room occupancy occurred? Use $\alpha=0.05$

(15 marks)