



EASTERN UNIVERSITY, SRI LANKA

DEPARTMENT OF MATHEMATICS

FIRST EXAMINATION IN SCIENCE -2009/2010

SECOND SEMESTER- (April / May, 2012)

CC 153 – BIostatistics PRACTICAL

Answer all questions.

Time: Two hours.

**Note:** Use separate worksheet for each question. Rename each worksheet by question number.

01. A researcher has collected data from an university to identify the factors effect for the GPA of undergraduates. The collected data are in text file "GPA.txt". Description of the data is given below.

Gender	:	Gender of student
Age	:	Age of the student in years
GPA	:	GPA of student, had recorded by the time that data collected
Class	:	The academic year of the student
Height	:	Height of the students in inches
Weight	:	Weight of the students in pounds
Study_hrs	:	Number of studying hours per week
Sleep_hrs	:	Sleeping hours per day
Job	:	Employability of the students [1: Employed 2: Unemployed]
Text_payment:		Average amount of money students pay for text books per month
Residence	:	Student's residence during study period
		1: Home 2: Hostel 3: Boarding house

NA is stand for **Not Available**.

Analyze these data to achieve the above objective and prepare a statistical report. Your report should consist of introduction, composition of sample, preliminary analysis, confirmatory analysis, conclusions and suggestions.

[80 Marks]

02. Write a **global macro** to check whether GPA depends on classes.

[20 Marks]