



**UNIVERSITY OF JAFFNA, SRI LANKA
UNIT OF ALLIED HEALTH SCIENCES
BASIC SCIENCES**

First YEAR SECOND SEMESTER EXAMINATION – Feb 2017

AHSBS1211 BASIC STATISTICS

Date: 07.02.2017

Time: 02 hours

Answer any TWO (02) questions out of three questions.

1. A hospital pharmacist measured the temperature of the refrigerator for 30 days in term of degree Celsius, as follows:

3	3	4	4	5	6
3	3	4	4	5	6
3	3	4	4	5	6
3	3	4	4	5	-1
12	12	4	4	5	-1

- 1.1 Write the type of scale was used to measure the variable. (20Marks)
 1.2 Draw a stem and leaf plot for the data. (50Marks)
 1.3 Describe the result in more appropriately. (30Marks)

2. An antihypertensive drug was tested in 15 samples.

Blood pressure (mm/hg)	Base line	144	115	150	150	135	120	144	147	110	138	152	140	125	135	120
	2 months after	124	110	120	110	115	100	115	122	98	114	125	112	109	110	100

- 2.1 Draw a box plot for baseline blood pressure and the blood pressure after two months. (70 Marks)
 2.2 With your graph comment the effectiveness of drug. (30 Marks)

3. A research was conducted to find the food habit and obesity.

Student code	Height (cm)	Weight (Kg)	BMI*	Gender [#]	Income group ^{\$}
A	165	79	29	2	1
B	174	96	32	1	1
C	155	89	37	1	2
D	189	92	26	2	3
E	164	107	40	1	1
F	178	102	32	1	3
G	155	80	33	1	3
H	175	83	27	2	1
I	180	85	26	2	1
J	164	88	33	2	2
K	156	75	31	2	2
L	188	84	24	1	1
M	150	94	42	1	3
N	155	107	45	1	3
O	160	89	35	1	1
P	181	99	30	2	1
Q	158	90	36	1	3
R	160	90	35	2	3
S	181	62	19	1	1
T	197	109	28	1	2

*BMI= Body mass index, <25: normal, 25.1-29.9 over weight, >30 obese
[#] 1= Female, 2=Male
^{\$} 1= Poor, 2= Average, 3= Rich

- 3.1 How to describe the parameters of the weight and income group? (25 Marks)
 3.2 Draw an appropriate graph for gender. (50 Marks)
 3.3 Write a brief report on income group and BMI. (25 Marks)