Assignment – Postgraduate – Estimation & Hypothesis Testing

Dr Wan Nor Arifin
Unit of Biostatistics and Research Methodology, Universiti Sains Malaysia.
wnarifin@usm.my

Estimation

1. A researcher collected data on diastolic blood pressure (DBP) from a sample of 80 patients, he found that the mean DBP was 75mmHg with standard deviation of 17mmHg. Estimate with 90%, 95% and 99% confidence the population parameter.

2. In a study on obesity among 321 adolescence in Kelantan, 35% of them were found to be obese. Construct 90%, 95% and 99% confidence interval for the percentage of obesity.

Hypothesis testing

1. A researcher is going to conduct a study to compare mean fasting blood sugar (FBS) (in mmol/L) between a group of lecturers and a group of medical students. If the researcher is not willing to make assumption whether any of the group has higher or lower mean FBS, state:

   a) Research hypothesis.
   b) Statistical hypothesis.

2. A researcher is going to conduct a study to compare proportion of obesity between a group of lecturers and a group of medical students. If the researcher is not willing to make assumption whether any of the group has higher or lower proportion of obesity, state:

   a) Research hypothesis.
   b) Statistical hypothesis.

Please submit this assignment by 1 month to my email address as written above.