M.D.(HOMOEOPATHY) PART-I (2016 COURSE) : HOMOEOPATHIC PHILOSOPHY / MATERIA MEDICA / REPERTORY/ HOMOEOPATHIC PHARMACY / PRACTICE OF MEDICINE : WINTER - 2017

SUBJECT: RESEARCH METHODOLOGY AND BIO-STATISTICS

Day: **Monday** Time: **10.00 A.M. TO 01.00 P.M**

Date: **04/12/2017** **W-2017-4458** Max. Marks: 100

N.B.:

1) Attempt **ANY FIVE** questions in each section.
2) Figures to indicate **FULL** marks.
3) Answer to both the section should be written in **SEPARATE** answer book.
4) All questions carry **EQUAL** marks.

SECTION-I

Q.1 Explain in detail about informed consent in 'Pediatric Practice'. **(10)**

Q.2 What is 'outcomes research'? Add a note on 'system responsiveness' and 'patient-centeredness' as feature of outcomes research. **(10)**

Q.3 Write methods and measures of health related quality of life (HRQoL). **(10)**

Q.4 Explain the 'internal' and 'external' validity of research design with respect to population and outcomes. **(10)**

Q.5 Explain pharmacovigilance. What is a difference between 'adverse drug reaction' and 'adverse event'? **(10)**

Q.6 What is 'hypothesis' and explain types of hypotheses with a brief note on type 1 and type 2 errors. **(10)**

SECTION-II

Q.7 What is correlation coefficient? Explain types of correlation coefficients. **(10)**

Q.8 What is normal distribution? Add a note on confidence intervals. **(10)**

Q.9 Write a detail about the Kruskal-Wallis Test. **(10)**

Q.10 Write in detail about the Friedman Test. **(10)**

Q.11 Suppose a random subsample of 1,000 infants was followed for up to 10 years after their birth. 122 of these infants died within 10 years of their birth date, and the remaining infants either were lost to follow-up, or survived the full 10 year study period. Suppose the mean of the recorded death and censoring times was computed for this group of infants to estimate mean survival times in the first ten years following birth, and this sample mean is 6.7 years. Is this sample mean a good estimate of the true mean survival time in the 10 years following birth? **(10)**

Q.12 Suppose you are asked to help design a study to compare the mean birth weights of 2 groups of infants. The study researcher plans to have the same sample size in both groups. The researcher tells you that she would like to have 80% power to detect a difference inn mean birth weights of 5 ounces using a significance level of .05. Has the researcher provided you with enough information for you or your computer to perform the sample size calculation? **(10)**