

**The 3<sup>st</sup> International Statistics Olympiad**  
**August 7-8, 2016**  
**Statistics Coordinator:**  
**Professor A. Parsian**

**The Olympiad of Mathematics, Chemistry and Statistics is going to be held in .....in  
Iran.**

<b>Date</b>	<b>Subject</b>	<b>Time</b>
Sunday August 7	Theoretical Statistics	8-12
Sunday August 7	Mathematics	14 -17
Monday August 8	Applied Statistics	8-12

**Statistics Olympiad**

Participants in Statistics Olympiad will sit for the exams on the following subjects:

- 1 – Mathematics:
  - a) Calculus,
  - b) Real Analysis,
  - c) Matrix Theory and Linear Algebra.
  
- 2 – Theoretical Statistical:
  - a) Probability and Distribution Theory,
  - b) Mathematical Statistics.
  
- 3 – Applied Statistics:
  - a) Regression Analysis,
  - b) Design of Experiment,
  - c) Multivariate Statistical Analysis (continuous & Discrete),
  - d) Time Series Analysis.

### **Statistics Olympiad Test References:**

a) Mathematics:

- 1) Stewart, J. (2012), Calculus. 7<sup>th</sup> Ed, Brooks /Cole. Cengage Learning, Belmont, CA.
- 2) Rudin, W. (1976), Principles of Mathematical Analysis, 3<sup>rd</sup> Ed, McGraw-Hill Book Company, New York.
- 3) Graybill, F. A. (1983), Matrices with Application in Statistics, 2<sup>nd</sup> Ed, Wadsworth International Group, Belmont, CA.

b) Theoretical Statistics:

- 1) Ross, S. (2001), A first course in Probability, 8<sup>th</sup> Ed, Pearson Education Inc.
- 2) Rohatgi, V. K. and Saleh, A. K. Md. E. (2001), An Introduction to Probability and Statistics, 2<sup>nd</sup>Ed, John Wiley & Sons Inc., New York.

c) Applied Statistics:

- 1) Montgomery, D. C., Peck, E. A. and Vining, G. G. (2001), Introduction to linear Regression Analysis, 3<sup>rd</sup> Ed, Wiley.
- 2) Montgomery, D.C. (2012), Design and Analysis of Experiment, 3<sup>rd</sup> Ed, Wiley.
- 3) Johnson, R. A. and Wichern, D. W.(2007), Applied Multivariate Statistical Analysis, 6<sup>th</sup> Ed, Prentice Hall.
- 4) Agrestic, A. (2007), Introduction to Categorical Data Analysis, 2<sup>nd</sup> Ed, Wiley.
- 5) Box, G. E. P., Jenkins, J. M. and Reinsel, G. C. (2008), Time Series Analysis: Forecasting and Control, 4<sup>th</sup> Ed, John Wiley & Sons.