2016 PEO Mechatronics Engineering Examinations Suggested Text Books Reference List

NOTE: Please feel free to use the most recent edition of textbooks referenced in this list

Group A Examinations

16-Mex-A1 System Analysis and Control

Bissell, C.C., Control Engineering, latest edition. Taylor & Francis.

Franklin, Feedback Control of Dynamic Systems.

16- Mex-A2 Circuits and Electronics

Sedra and Smith, Microelectronic Circuits, latest edition. Oxford University Press

Nilsson, James W. and Susan Riedel, Electric Circuits, latest edition. Prentice Hall.

Alexander, Charles and Mathew Sadiku, Fundamentals of Electric Circuits, latest edition. McGraw Hill.

Schwarz and Oldham, Electrical Engineering: An Introduction, latest edition. Oxford University Press.

16-Mex-A3 Digital Systems and Computers

Brey, Barry, The Motorola Microprocessor Family: 68000, 68008, 68010, 68020, 68030, and 68040: Programming and Interfacing with Applications. Saunders College Publishing.

16-Mex-A4 Applied Thermodynamics and Heat Transfer

Fundamentals of Engineering Thermodynamics by Michael J. Moran and Howard N. Shapiro, John Wiley and Sons Incorporated

Heat and Mass Transfer by Yunus A. Çengel and Afshin J. Ghajar, McGraw Hill Publishing Company.

Moran, M .J., H.N. Shapiro, B.R. Munson and D.P. DeWitt Introduction to Thermal Systems Engineering: Thermodynamics, Fluid Mechanics, and Heat Transfer. John Wiley and Sons

16-Mex-A5 Kinematics and Dynamics of Machines

Inman, D.J., Engineering Vibrations, latest edition. Prentice-Hall.

Waldron, K.J., and Kinzel, G.L., Kinematics, Dynamics and Design of Machinery. John Wiley & Sons.

16-Mex-A5 Systems Analysis and Simulation

A.M. Low and W.D. Kelton, Simulation, Modelling and Analysis, 2nd edition. McGraw-Hill Inc., 1991.

C.D. Pegden, R.E. Shannon, and R.P. Sadowski, Instruction to Simulation Using Siman. McGraw-Hill Inc., 1990.

16-Mex-A7 Instrumentation, Measurements, Sensors and Actuators

Clarence W. de Silva, 2015, Sensors and Actuators: Engineering System Instrumentation, Second Edition, CRC Press- Taylor & Francis Group.

John G. Webster (Ed.), 1999, The Measurement Instrumentation and Sensors Handbook, CRC Press.

Group B Examinations

16-Mex-B1 Signals and Communications

Haykin, Communication Systems, latest edition, John Wiley & Sons Canada Ltd.
Or
Haykin, Simon & Michael Moher, Introduction to Analog and Digital Communication Systems, latest edition, John Wiley & Sons.
Lathi, B.P., Signal Processing and Linear Systems. Oxford University Press.
Or
Haykin, Simon & Barry Van Veen, Signals and Systems, Interactive Solutions Edition, latest edition, John Wiley & Sons Canada Ltd.

16-Mex-B2 Digital Signal Processing

Ifeachor, Emmanuel, and Barrie Jervis, Digital Signal Processing, a Practical Approach, latest edition. Prentice Hall.

Mitra, Sanjit, Digital Signal Processing, a Computer-Based Approach, latest edition. McGraw Hill.

16-Mex-B3 Advanced Control Systems

Dutton, Ken, Steve Thompson, and Bill Barraclough, The Art of Control Engineering. Prentice Hall.

Nise, Norman, Control Systems Engineering. John Wiley.

16-Mex-B4 Acoustics and Noise Control

Prime Text:

Barron, Randall F., Industrial Noise Control and Acoustics. Marcel Dekker.

Supplementary Texts:

Bell, Lewis H. and Douglas H. Bell, Industrial Noise Control: Fundamentals and Applications, latest edition, Marcel Dekker.

Irwin, J.D., Industrial Noise and Vibration Control. Prentice-Hall.

Wilson, Charles E., Noise Control: Measurement, Analysis, and Control of Sound and Vibration. Krieger, 1994.

16-Mex-B5 Robot Mechanics

Paul, R.P., Robot Manipulators - Mathematics, Programming and Control. MIT Press.

Craig, J.J., Introduction to Robotics: Mechanism and Control. Addison-Wesley Publishing Co.

16-Mex-B6 Power Electronics and Drives

Rashid, Muhammad H., Power Electronics: Circuits, Devices and Applications, latest edition. Prentice-Hall.

Mohan, N, Undeland, T, Robbins, W, Power Electronics – Converters, Applications, and Design. John Wiley.

Sen, P C., Principles of Electric Machines and Power Electronics, latest edition. Wiley.

16-Mex-B7 Design and Manufacture of Machine Elements

Juvinall, Robert C., and Kurt M. Mershek, Fundamentals of Machine Component Design, latest edition. Wiley.

Groover, Mikell P., Fundamentals of Modern Manufacturing: Materials, Processes, and Systems, latest edition. Wiley.

16-Mex-B8 Product Design and Development

Prime Texts:

Ulrich, Karl T. & Steven D. Eppinger, Product Design and Development, latest edition. McGraw Hill.

Boothroyd, G., W.A. Knight & Peter Dewhurst, Product Design for Manufacture and Assembly, latest edition. Marcel Dekker Inc.

Supplementary Texts:

Ullman, David G., The Mechanical Design Process, latest edition. McGraw Hill.

16-Mex-B9 Integrated Manufacturing Systems

Groover, Mikell P., Automation, Production Systems, and Computer-integrated Manufacturing, latest edition. Prentice Hall.

16- Mex-B10 Power Systems and Machines

Chapman, Stephen, Electric Machinery and Power System Fundamentals, McGraw Hill.

Wildi, Theodore, Electrical Machines, Drives, and Power Systems, latest edition, Prentice Hall.