

ASSUMPTION UNIVERSITY
GRADUATE SCHOOL OF COMPUTER AND ENGINEERING MANAGEMENT
MS-CEM
FEBRUARY 2008 (2/2008)
TOPIC FOR COMPREHENSIVE EXAMINATION

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PAPER 1. MIS and MANAGEMENT OF COMPUTING ACTIVITIES (Closed Book)

Dr. Chanintorn

Sunday, Feb. 3, 2008

Time: 13:00 – 20:00 hrs.

- Topic 1:**
1. The Strategic role of Information Systems and Data Mining
 2. Information, Management, and Decision Making
 3. Ethical and Social Impact of Information Systems
 4. The Internet, E-Commerce, and E-Business
 5. Telecommunications and Networks

- Topic 2:**
1. The Changing Roles of Computers
 2. Computer Hardware, Software
 3. Computer Systems Performance Evaluation
 4. Planning and Controlling a Data Processing Activity
 5. Recruiting, Training, and Development of Personnel
 6. Computer Network and Communication Security
 3. Setting Up an Information System
 8. Threats to Information System
 9. Security Systems Development Life Cycle

- Texts :**
1. Management of Computer Systems, by K.C. Laudon and J.P. Laudon, 5 ed. Prentice-Hall.
 2. Management Information Systems, 4th Edition, by Effy Oz, Thomson Course Technology, 2004.
 3. Principle of Information Security, by M.E. Whitman and H.J. Mattord, Thomson.

PAPER 2. ENGINEERING MANAGEMENT AND ECONOMY.

2.1 Principle of Engineering Management (CE 6500) Open Book

Dr. Akajate Apikajornsin

Sunday, Feb. 10, 2008

Time: 1. 30 hrs.

- Topics :**
1. The Environment of Managing
 2. Planning
 3. Strategic Management
 4. Ethical Behavior and social Responsibility
 5. Organizing
 6. Leading

3. Motivation
8. Controlling
9. Information Technology and Decision Making
10. Innovation and Change Management
11. Paradigm / Innovation
12. Product and Service Design
13. Facilities Layout
14. Reengineering Processes

Text : Management, 6th Edition, John Schermerhorn, Jr.

- Reference:**
1. Management Engineering Technology
 2. Daniel L. Babcock
 3. Prentice Hall International 1991

2.2 Computer and engineering economy (CE 6506) Open Book

Dr. Maethee C.

Time: 1.30 hrs.

- Topics :**
1. Principle of Engineering Economy.
 2. Nominal and Effective Interest Rates.
 3. Comparison of Alternatives considering Time Value of Money.
 4. Evaluation of Public Projects. (Benefit/Cost Ratio).
 5. Replacement Analysis.
 6. Dealing with Uncertainty.
 3. Breakeven and Minimum Cost Analysis.

Tex: Engineering Economy by William G Sullivan, Elin M.Wicks and James T Luxhoj. Twelfth Edition, Prentice Hall International, Inc. 2002. ISBN 0-13-039555-2.

PAPER 3. PRODUCTION MANAGEMENT AND OPERATIONS RESEARCH

A Student may choose to answer only two of the following three.

3.1 Production Management (CE 6620) Open Book

Dr. Chamnong Jungthirapanich

Sunday, Feb. 17, 2008

Time: 1.30 hrs.

- Topics :**
1. Forecasting
 2. Production and Capacity Planning
 3. Facility Location
 4. Facilities Layout Planning
 5. Jobs Design, Analysis, and Measurement
 6. Materials Management
 3. Inventory Management, JIT
 8. Statistical Quality Control
 9. Total Quality Management
 10. ISO 9000

11. Production Scheduling and Control
12. Project Management

Texts : Russell, Roberta S. And Bernard W. Taylor, III. Production and Operations Management, Englewood Cliffs, NJ 03632, USA: Prentice-Hall, 1995

3.2 Deterministic Models in Operations Research (CE 6305) Open Book
Dr. Rapeepat Techkittiroj rapeepatTch@au.edu
Time: 1.30 hrs.

- Topics :**
1. Linear Programming
 - Graphical Method
 - Sensitivity Analysis
 2. The Simplex Algorithm
 3. Transportation & Transshipment Model
 4. Assignment Model
 5. Network Models
 - Minimum Spanning Tree
 - Shortest Route Problem
 - Maximum Flow Problem
 6. PERT/CPM (Deterministic)
 3. Integer Programming
 8. Decision Model

Text : 1. Quantitative analysis for Management, 3 Ed., Barry Render & Ralph M. Stair Jr, Prentice Hall 2000

3.3 Computer Integrated Manufacturing Systems Mgt. (CE 6611) Open Book
Dr. Akajate Apikajornsin
Time: 1.30 hrs.

- Topics:**
1. Introduction of Computerized Manufacturing Systems
 - Enterprise & Manufacturing Operation
 2. Fundamental of Automation
 3. Sensors, Control System and NC Technology
 4. Industrial Robotics
 5. PLC
 6. Material Handling Technologies
 3. Group Technology and Flexible Manufacturing System
 8. Assembly technologies
 9. Inspection Technologies
 10. Manufacturing Support Systems
 11. Lean and Agile Manufacturing
 12. Future Trend of CIM and Manufacturing Enterprise Integration
- Texts:** Singh, Nana, System Approach to Computer-Integrated Design

- and Manufacturing, John Willey & Sons Inc., 1996.
- References:**
- Groover, Mikell P., Fundamental of Modern Manufacturing, Prentice Hall, 1998.
 - Groover, Mikell P., Automation, Production Systems, and Computer Integrated Manufacturing, Prentice Hall, 1983.
 - Mitchell, F.H. Jr., CIM Systems, Prentice Hall, 1991.
 - Truck, H.E., Designing for Economical production, SME, 1983.
 - Other Notes that will be handed in class

PAPER. 4 MANAGEMENT.

A student may select to answer only two of the following four topics :

4.1 Financial Management (CE 6505) Open Book

Dr. Ismail

Sunday, Feb. 24, 2008

Time: 1.30 hrs.

- Topics :**
1. Overview
 2. Analysis of Financial Statements
 3. Forecasting of Financial Planning
 4. Risk and Return
 5. Time Value of Money
 6. Bond and Stock Valuation
 3. Capital Budgeting Decision Making
 8. The Cost of Capital
 9. Dividend Policy
 10. Working Capital Policy
 11. Managing Cash
 12. Accounts Receivable and Inventory
 13. Short-term Financing

Texts :

- Financial Management: Principles and Practice, 2nd edition, by Timothy J. Gallagher (Colorado State University) and Joseph D. Andrew, Jr. (Senior Financial Analyst, BIA Consulting, Inc.), Prentice Hall, Inc. New Jersey 2000.

Reference :

- Finance, International Edition by Zvi Bodie (Boston University) and Robert C. Merton (Harvard University), Prentice Hall International, Inc.2000.
- Financial Reporting and Statement Analysis: A Strategic Perspective, 4th edition by Clyde P. Stickney (University of Chicago) and Paul R. Brown (New York University), The Dryden Press, hardcourt Brace College Publishers, 199.

4.2 Marketing Management (CE 6511) Open Book**Dr. Thanatphong Pratheepthaweephon****Time: 1.30 hrs.**

- Topics :**
1. Introduction to Marketing
 2. Building Customer Satisfaction, Value, and Retention
 3. Strategic Planning
 4. Gathering Information and Measuring Market Demand
 5. Consumer Behavior and Analysis
 6. Organizational Buying Behavior
 3. Competition Analysis
 8. Market Segmentation
 9. Market Positioning Through The Product Life Cycle
 10. Global Marketing Strategies
 11. Pricing Strategies
 12. Online Marketing

Text : Kotler, Philip, Marketing Management: The Millennium Edition. Upper Saddle River, New Jersey 03458. Prentice-Hall, 2000. Strauss, Judy and Frost Raymond D. Marketing on the Internet: Principle of Online Marketing. Upper Saddle River, NJ. Prentice-Hall, 1999.

4.3 Personnel Management (CE 6509) Open Book**Dr. Sming Chongwiwatthanant****Time: 1.30 hrs.**

- Topics :**
1. Introduction: The Strategic Role of Human Resource Management
 2. Recruitment and Placement
 - Job Analysis
 - Personnel Planning & Recruitment.
 - Employee Testing and Selection
 - Interviewing Candidates.
 3. Training Development
 - Training and Developing Employees
 - Managing Organization Renewal (Management Development and Organizational Development)
 - Appraising Performance
 - Managing Careers and Fair Treatment (Managing Your Career)
 4. Fundamentals of Motivation (Hierarchy of Needs, Hygiene-Motivator Theory, Equity Theory of Motivation, Expectancy Theory of Motivation. Behavior Modifications)
 5. Compensation
 - Establishing Pay Plans
 - Pay-for-Performance and Financial Incentives
 - Benefits and Services
 - No financial incentives (Quality of Work life)

Text : Gary Dessler Human Resource Management, Eighth Edition,
Published by Prentice-Hall Inc. 2005 Excerpt: “Fundamentals of
Motivation” Gary Dessler, Personnel/Human Resource Management Fifth
Edition. 10

4.4 Case Studies In General Management (CE 6512) Open Book

Dr. Pinluptaporn Narksomboon

Time: 1.30 hrs.

- Topics :**
1. Introduction to Management
 2. Overview of Quantitative Decision Making and Planning
 3. Organizing
 4. Leading
 5. Controlling
 6. Managing in Special Setting
 3. Basic Economic Structure

- Text :**
1. Du Brin , J, A, & Ireland , D.R., Management & Organization 2nd
Edition. , South - Western Publishing, Cincinnati: Ohio, 1993.
 2. Drucker, F.P. Managing for the Future First Truman Talley Book, 1993.
 3. By Carola Cs Corror 1994 Professor Guide to Successful Mgt.
