Syllabus for Written Test

2. Assistant Professor – Management

Distribution of marks for each unit is as follows:
(40 marks for Quantitative Techniques, 20 marks for Business Economics & 40 marks for Operations Research)

Total Marks: 100

Quantitative Technique (40 marks)

Unit I
Basic Statistics: Basic Concepts of Statistics, Charts and Diagrams, Measures of Central Tendency and Dispersion moments, Skewness & Kurtosis (8 Marks)

Unit II

Unit III
Probability Distribution: Normal, Binomial, Poisson, Exponential Distribution (7 Marks)

Unit IV
Statistical Estimation: Basic Concepts, Point and Interval Estimation, Central Limit Theorem, Sampling Distribution, Standard Error, Type I error, Type II error, Testing of Hypothesis- t-test, Z-test, Chi-Square test, F-test, ANOVA (10 Marks)

Unit V
Correlation and Regression: Simple, Partial and Multiple Correlation, Regression, Business Applications, Time Series Analysis, Software Packages (7 marks)

Business Economics (20 Marks)

Unit I
Managerial Economics – Decision making and concept affecting business decision – Utility analysis – Demand curve – indifference curve analysis, price effect, income effect and substitution effect – Elasticity of demand – Demand forecasting (10 Marks)

Unit II
Operations Research (40 Marks)

Unit I

(8 Marks)

Unit II
Transportation Models: Northwest Corner Method (NWC), Least Cost Method (LCM), Vogels Approximation Method, Test for optimality-MODI Method, Assignment Model- Hungarian Method

(8 Marks)

Unit III

(8 Marks)

Unit IV
Queuing Theory: M/M/1 Queue (System with Single Server), M/M/2 (System with Two Servers), Monte Carlo Simulation, Applications in Queuing and Inventory.

(8 Marks)

Unit V
Decision Theory: Decision Making under Risk and Uncertainty, Game Theory, Decision Tree, OR Software.

(8 Marks)
Syllabus of Selection Test to the Post of Assistant Professor –
Communicative English

(Each unit carries 20 Marks)

Total Marks: 100

**Module 1:** Basics of Communication- Components of communication- Types of communication- Principles of effective communication- Barriers to effective communication- English as a lingua-franca- Paralinguistic features and body language.

(20 marks)

**Module 2:** Listening- Types of listening- Principles of effective listening- Barriers to effective listening- Note taking- Basics of phonetics- Vowels and consonants- Supra segmental features.

(20 Marks)

**Module 3:** Speaking- Basics of public speaking- techniques to improve speaking skills- Self introductions- Public Speeches- Group Discussions- Debates- Everyday conversations- Speaking skills for interviews. Testing presentation skills

(20 Marks)

**Module 4:** Reading- Importance of reading- Types of reading- Methods of reading- Barriers to effective reading- Basics of proof reading.

(20 Marks)

**Module 5:** Writing- The importance of writing- types of writing- Writing formal and informal letters- summaries- abstracts- newspaper/magazine articles- writing e-mails, memos, minutes of a meeting- resume- bio data- bio sketch-anchoring scripts.

(20 Marks)
Syllabus of Selection Test to the Post of Assistant Professor – Finance and Accounting

(Distribution of Marks: 50 marks for theory and 50 for problems)

Total Marks: 100

**Unit I**


Practical problems:


Investment accounts- fixed income bearing securities- Variable income bearing securities- Investment ledger- Cum interest and ex interest.

Working capital- importance- Determinants of working capital- sources of working capital- estimation of working capital

(40 Marks)

**Unit II**


Practical problems:


Preparation of cost sheet

(30 Marks)

**Unit III**

Financial management- meaning, objectives, nature, scope-Finance functions- financial decision-financing decision-Investment decision- Dividend decision

Practical problems:

Capital structure- concept of cost of capital- Cost of Debt- cost of preference share- cost of retained earnings- cost of equity- Measurement of overall cost of capital

Capital budgeting- techniques of capital budgeting – pay back method- Accounting Rate of Return- Net Present Value Method- Internal Rate of Return- Profitability Index.

(30 Marks)