



SYLLABUS

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APEX STORY

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INTRODUCTION

AMCAT tests students from different fields in various domains with the help of an in-depth micro analysis in each domain.

The test consists of various sections/modules which you can choose according to your profile or education background. There are certain modules which are compulsory for everyone (Language and Aptitude Modules), whereas others are optional. During the test, you will be given an option to select any two domain specific modules. It is recommended that you go through the module description and befitting job profiles before you go to take the AMCAT. Your choice of modules increases your visibility for particular kind of jobs, for instance, if you take the Programming Module, you will be visible to more IT companies whereas taking a HR module will help you find HR profiles. It is best for you to go through the module list now and decide which optional modules you would like to take.

Provided below is the list of all the modules that you can take in AMCAT, the broad topics that a module would cover, relevant job profiles, number of questions, duration and some sample questions for each module.

COMPULSORY MODULES

ENGLISH

The module evaluates written English skills and is aimed at determining the candidate's ability to understand (a) the written text (b) the spoken word and (c) the ability to communicate effectively through written documents.

Befitting Job Functions/Profiles: This module will be relevant for almost all profiles such as Business Consulting, HR/Admin, iTeS/BPO, Marketing, Engineering, Sales and Customer Management, IT, Hotel Management, Life Sciences, Content Development, etc.

Number of Questions: 25

Module Duration: 25 min

Detailed Syllabus:

Vocabulary

- Synonyms
- Antonyms

Grammar

- Subject-Verb Agreement
- Tenses and Articles
- Prepositions and Conjunctions
- Speech and Voices

Comprehension

- Inferential and Literal Comprehension
- Contextual Vocabulary
- Comprehension ordering

QUANTITATIVE ABILITY

The module is ideal to evaluate the numerical ability of an individual and is available in both technical and non technical flavor.

Befitting Job Functions/Profiles: This module will be relevant for almost all profiles such as Content Development, Business Consulting, HR/Admin, iTes/BPO, Marketing, Engineering, Sales and Customer Management, IT, Hotel Management, Life Sciences, etc.

Number of Questions: 25 (for Engineering Graduates) / 16 (for MBA and General Graduates)

Module Duration: 35 min (for Engineering Graduates) / 16 min (for MBA and General Graduates)

Detailed Syllabus:

Basic Mathematics

- Divisibility
- HCF and LCM
- Numbers, decimal fractions and power

Applied Mathematics

- Profit and Loss
- Simple and Compound Interest
- Time, Speed and Distance

Engineering Mathematics

- Logarithms
- Permutation and Combinations
- Probability

LOGICAL ABILITY

The module assesses capacity of an individual to interpret things objectively, to be able to perceive and interpret trends to make generalizations and be able to analyze assumptions behind an argument/statement.

Befitting Job Functions/Profiles: This module will be relevant for almost all profiles such as Content Development, Business Consulting, HR/Admin, iTes/BPO, Marketing, Engineering, Sales and Customer Management, IT, Hotel Management, Life Sciences, etc.

Number of Questions: 24

Module Duration: 35 min

Detailed Syllabus:

Deductive Reasoning

- Coding deductive logic
- Directional sense, Blood relations
- Objective Reasoning
- Selection decision tables
- Puzzles

Inductive reasoning

- Coding pattern and Number series pattern recognition
- Analogy and Classification pattern recognition

Abductive Reasoning

- Logical word sequence
- Data sufficiency

ASPIRING MINDS PERSONALITY INVENTORY (AMPI)

The module does an overall personality assessment of the candidate and is used to assess candidates in people-interaction and people-management roles.

Number of Questions: 80

Module Duration: 20 min

Detailed Syllabus:

AMPI: Aspiring Minds Personality Inventory is based on the five-factor model of Personality. AMPI measures five broad-based traits:

- Extraversion
- Conscientiousness
- Neuroticism
- Openness to Experience
- Agreeableness.

ATTENTION TO DETAIL (COMPULSORY ONLY FOR GENERAL GRADUATES)

The module checks how thorough a candidate is in accomplishing a task with concern for all the aspects involved, no matter how small.

Befitting Job Functions/Profiles: Content Management, Quality Assurance, Banking Analyst, In house Lawyer, Designer - Fashion, Interior and Industrial, Business Analysts, Health Care, Engineers, etc.

Number of Questions: 25

Module Duration: 20 min

Detailed Syllabus:

- Verbal ATD
- Numerical ATD
- Visual ATD

EXCEL (COMPULSORY ONLY FOR MANAGEMENT GRADUATES)

The module assesses, without bias, how efficiently a candidate can 'work' on excel instead of how well he 'knows or remembers' excel.

Befitting Job Functions/Profiles: Business Consultant, Business Analyst/Associate, Research Analyst/Associate, Accountant, etc.

Number of Questions: 23

Module Duration: 20 min

Detailed Syllabus:

MS Excel Basics

- Formatting cells
- Insertion, deletion
- Page setup
- Cut, copy, paste
- Drop down

Data Analysis and Presentation

- Managing worksheets and workbooks
- Pivot table
- Analyzing and organizing data

- Basic formulae

Advanced excel

- Macros
- Sheet Protection

GENERAL GRADUATES

EXCEL

The module assesses, without bias, how efficiently a candidate can 'work' on excel instead of how well he 'knows or remembers' excel.

Befitting Job Functions/Profiles: Business Consultant, Business Analyst/Associate, Research Analyst/Associate, Accountant, etc.

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Detailed Syllabus:

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- Formatting cells
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- Page setup
- Cut, copy, paste
- Drop down

Data Analysis and Presentation

- Managing worksheets and workbooks
- Pivot table
- Analyzing and organizing data

- Basic formulae

Advanced excel

- Macros
- Sheet Protection

COMPUTER PROGRAMMING

The module is ideal to evaluate entry level talent's exposure and expertise in Computer Programming. This module is agnostic to programming languages and does not require the candidates to code during the test.

Befitting Job Functions/Profiles: Technical Support Executive, Computer Engineer, Software Developer – Web, System s/w, Product, Trainee, Testing Engineer, Research Engineer, Content Developer-IT, IT Recruiter, etc.

Number of Questions: 25

Module Duration: 35 min

Detailed Syllabus:

Basic Programming

- Data Types
- Iteration, Recursion, Decision
- Procedure, functions and scope

Data Structures

- Arrays, Linked Lists, Trees, Graphs
- Stacks, Queues
- Hash Tables
- Heaps

OOPs

- Polymorphism
- Abstraction
- Encapsulation

Miscellaneous

- Searching and Sorting
- Complexity Theory

PHYSICS

This module requires a candidate to apply the principles and laws, involved in various topics such as Newton's laws, Electromagnetic theories etc, to real world situations.

Befitting Job Functions/Profiles: Lab Supervisor, Researcher, Technician, Manager, Consulting Physicist, Research Associate, Senior Physicist.

Number of Questions: 26

Module Duration: 25 min

Detailed Syllabus:

Classical Mechanics

- Kinematics and Dynamics
- Rotational and Fluid Mechanics
- Oscillations and Waves

Electromagnetism

- Electrostatics
- Magneto statics and electro dynamics
- Optics

Thermodynamics and Modern Physics

- Thermal physics
- Nuclear and Particle physics

CHEMISTRY

The module assesses the candidates on the various laws, theories and principles governing the various physical phenomena in chemistry.

Befitting Job Functions/Profiles: Laboratory Assistant, Scientist, Research and Development, Chemist, Sales Representative, etc.

Number of Questions: 29

Module Duration: 16 min

Detailed Syllabus:

Physical Chemistry

- Atomic structure
- Chemical bonding
- Gaseous state
- Chemical thermodynamics
- Chemical and ionic equilibrium
- Solutions and colligative properties
- Electrochemistry
- Chemical kinetics

Inorganic Chemistry

- Periodic table and periodic properties
- s, p and d-block elements
- Coordination compounds

Organic Chemistry

- Purification and characterization of organic compounds
- Types of organic reactions

BASIC BIOLOGY

The module assesses graduates from Life Sciences, Pharmacology, and Nursing backgrounds on their knowledge, understanding and application of the basic concepts of biology.

Befitting Job Functions/Profiles: Medical Representative, Nurse, Scientist, Research and Development, etc.

Number of Questions: 22

Module Duration: 16 min

Detailed Syllabus:

Basic Anatomy

- Brain and skeleton
- Muscular system and alimentary canal
- Respiratory and cardiac system

Physiology-1 (Head and Thorax)

- Brain and pituitary, thyroid, parathyroid glands
- Neuro-transmission
- Respiration
- Lymphatic system and complete blood system

Physiology-2 (Below Thorax)

- Endocrine glands and gastrointestinal tract
- Adrenals, pancreas, testes and ovary
- Urinary system
- Reproductive system

MARKETING

The module assesses the candidates for all aspects of marketing ranging from fundamentals, to market research, planning and strategy and principles of economics all of which are closely linked and would be required by a marketing professional.

Befitting Job Functions/Profiles: Sales Manager/Executive, Marketing Manager/Executive, etc.

Number of Questions: 27

Module Duration: 18 min

Detailed Syllabus:

General Marketing

- Marketing planning and strategy
- Marketing management
- Principles of economics

Brand Planning

- Brand management
- Advertising management
- Consumer behavior
- Marketing research

Sales and Distribution Management

- Sales management
- Distribution models
- Channels management

FINANCE AND ACCOUNTING

The module tests the ability of students to understand the increasingly complex and critical area of finance coupled with knowledge of the practices of accounting.

Befitting Job Functions/Profiles: Accounts Executive/Manager, Finance Executive, Accounting Executive, BFSI Product Sales Executive/Manager, BFSI Product Services Executive/Manager, etc.

Number of Questions: 29

Module Duration: 30 min

Detailed Syllabus:

Corporate Accounting

- Accounting for profit and non-profit organizations
- Capital and revenue
- Financial statements analysis

- Reconciliation of accounts

Financial Accounting

- Accounting process
- Business income
- Nature of accounting principles

Management Accounting

- Introduction to cost concepts
- Inventory control

BANKING & FINANCIAL SERVICES

The module has been designed to check general financial knowledge and its application for a graduate in all subject areas that affect a financial manager's decisions.

Befitting Job Functions/Profiles: Accounting Managers, Corporate Controllers, Chief Financial Officers, Treasurers and Finance Officers, Cash Managers, Management Consultants.

Number of Questions: 27

Module Duration: 20 min

Detailed Syllabus:

Investment Products

- Stocks
- Bonds
- Mutual Funds

Banking Products

- Banking
- Debt

Basic Economics and Taxation

- Macro Economics

- Taxation

HUMAN RESOURCES (HR)

The module tests particular areas of candidate's strength and identifies whether the candidate is suited for a specialist or a generalist profile in HR.

Befitting Job Functions/Profiles: HR/Recruitment Manager/Executive, Training Manager/Executive, IT Recruiter, Sourcing Executive/Manager, etc.

Number of Questions: 25

Module Duration: 16 min

Detailed Syllabus:

HR Planning and Strategy

- Basics of human resource
- Human resource planning
- Human resource information system
- Strategic human resource management

Organizational behavior

- Industrial behavior
- Group behavior
- Organizational structure and design

Specialist HR Functions

- Industrial relations and development
- Performance management selection
- Training and development

OPERATIONS

The module assesses MBA students on their understanding of basic concepts involved in Operations Management, laying greater emphasis on the practical aspects of operations.

Befitting Job Functions/Profiles: Operations Executive/Manager, Operation Research Associate, Supply Chain Manager, etc.

Number of Questions: 22

Module Duration: 25 min

Detailed Syllabus:

Planning and Development

- Capacity and Facility planning
- Process selection and Project planning
- Product design and development

Supply Chain Management

- Sourcing and purchase management
- Logistics and warehousing
- Inventory management
- Resources planning

Quality Management

- Statistical quality control and Control charts
- Acceptance sampling
- Operating characteristic curve
- Quality management, ISO, six sigma

PHARMACEUTICAL SCIENCES

The module focuses on assessing a student on theoretical and practical aspects of design and development of new drugs for clinical purposes, different sources, working and formulation of medicines and its analysis.

Befitting Job Functions/Profiles: Research Assistant, Medical representative, Pharmacist, Chemist, Sales Representative, etc.

Number of Questions: 30

Module Duration: 20 min

Detailed Syllabus:

Pharmaceutics

- Drug manufacture
- Drug delivery, release and action
- Pharmacy know how

Pharmacology

- Basic pharmacology and therapeutics
- Drug action on nervous system and endocrine glands
- Drug action on circulatory system and GI tract

Pharmaceutical Analysis

- Chromatography and electrochemistry
- Titration
- Other analytical techniques

FRONT OFFICE

The module tests the students on the basics of Hospitality Industry, various functions of a front office ranging from various stages of the guest cycle to the knowledge of evaluating hotel's performance.

Befitting Job Functions/Profiles: Front Office Executive/Manager, Sales Executive/Manager, etc.

Number of Questions: 22

Module Duration: 16 min

Detailed Syllabus:

Front Office Organization

- Basics of FO
- Hotel organization

Front Office Operations

- Introduction to guest cycle/guest handling
- Reservations
- Room selling techniques
- Guest safety and security, special requests

Front Office Accounting

- Tariff structure
- Computer application
- Accounting fundamentals
- Planning and evaluating FO operations

HOUSEKEEPING

The module tests candidates on the basics of Hospitality Industry, various functions of housekeeping ranging from basic cleaning procedures to its peripheral activities.

Befitting Job Functions/Profiles: Housekeeping Executive/Manager, Sales Executive/Manager, etc.

Number of Questions: 25

Module Duration: 15 min

Detailed Syllabus:

Organization of the House Keeping Department

- Organization chart
- Routine systems and records
- Planning and organizing
- Store and control desk

Cleaning and Procedures

- Guest room cleaning procedures
- Cleaning knowledge and practice

Other Housekeeping Activities

- Linen and uniform rooms
- Safety and security
- Laundry
- Horticulture

FOOD PRODUCTION

The module focuses on testing the student on understanding of all basic concepts of food production along with situational based questions to check application and practical nuances.

Befitting Job Functions/Profiles: Food Production Executive/Manager, Sales Executive/Manager, etc.

Number of Questions: 21

Module Duration: 12 min

Detailed Syllabus:

Cooking Methods and Safety

- Principles of methods of cooking
- Equipments and new developments
- Safety and sanitation

Meals Preparation and Presentation

- Different courses of meal
- Presentation of dish

Stock Management and Budgeting

- Stock management

- Knowledge of budgeting
- Pricing and setting up a menu

FOOD AND BEVERAGE SERVICE

The module focuses on testing student's understanding of the theoretical differences between the various types of service along with its practical aspects.

Befitting Job Functions/Profiles: Food and Beverages Executive/Manager, Sales Executive/Manager, etc.

Number of Questions: 22

Module Duration: 16 min

Detailed Syllabus:

Service Planning and Preparation

- Meals and menu planning
- Preparation for service

Operations-Service Area and Equipments

- Food service areas
- Departmental organization, staffing and room service
- F&B service equipments
- Function catering
- QSR operations, Sale control system and Meal management

Tobacco and Beverages

- Tobacco
- Alcoholic beverages and other drinks
- Non-alcoholic beverages

ENGINEERING GRADUATES

COMPUTER PROGRAMMING

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Number of Questions: 25

Module Duration: 35 min

Detailed Syllabus:

Basic Programming

- Data Types
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Data Structures

- Arrays, Linked Lists, Trees, Graphs
- Stacks, Queues
- Hash Tables
- Heaps

OOPs

- Polymorphism
- Abstraction
- Encapsulation

Miscellaneous

- Searching and Sorting
- Complexity Theory

COMPUTER SCIENCE

The module focuses to assess the candidate's knowledge in basics of operating system and computer architecture, computer networks and database concepts.

Befitting Job Functions/Profiles: Software Developers, Database Administrator and Network Engineers

Number of Questions: 26

Module Duration: 22 min

Detailed Syllabus:

Operating System and Computer Architecture

- Basics of OS and Computer Architecture
- Process Management and Synchronization
- Memory and I/O Management

DBMS

- Data model
- Relational Algebra and SQL
- Normalization, Architecture, Indexing

Computer Networks

- Basics of networking and communication
- OSI, TCP/IP layers and protocols
- Network Devices and Routing Algorithms

ELECTRONICS AND SEMICONDUCTORS

The module assesses the job suitability of the candidate in those companies which deal with Embedded Systems, VLSI design, SOC, Electronic, Design and Automation Companies etc.

Befitting Job Functions/Profiles: Electronics Engineer, Hardware Engineer, Sales and Operations Manager/Executive for Electronic Industry Processes, Research Scientist, Technical Content Developer, etc.

Number of Questions: 25

Module Duration: 35 min

Detailed Syllabus:

Semiconductors and Devices

- Basics of semiconductor
- Two terminal devices
- Three terminal devices

Analog Electronics

- Basic for circuit analysis
- Small Signal and Large Signal Circuit Analysis
- Feedback, stability and oscillators
- Op-amps
- Filters

Digital Electronics

- Boolean Algebra and minimization of Boolean functions
- Logic families
- Combinational Circuits
- VLSI Basics

TELECOMMUNICATION

This module evaluates the candidates on their knowledge and understanding of the subject of Telecommunication and its applications.

Befitting Job Functions/Profiles: Telecommunications Field Engineer, Telecommunications Manager, Systems Developer, Radio communications Technician, Telecommunications Network Planner, Telecommunications Technical Officer-Technologist, RF Engineer, Switch Engineer.

Number of Questions: 30

Module Duration: 30 min

Detailed Syllabus:

Communication

- Analog
- Digital
- Optics

Microwave Engineering

- Microwave engineering
- Transmission lines and waveguides
- Antennas and wave propagation
- Radar

Electromagnetism

- Electrostatics
- Magnetostatics
- Electromagnetic theory

ELECTRICAL ENGINEERING

The module focuses on testing a student on theoretical knowledge as well as practical concepts of electricity, electronics and electromagnetism.

Befitting Job Functions/Profiles: Electrical Engineer, Power Engineer, Technical Content Developer, Sales and Operations Manager/Executive for Electrical Industry Processes, Research and Development, etc.

Number of Questions: 30

Module Duration: 30 min

Detailed Syllabus:

Fundamentals of Electrical Engineering

- Basic electrical engineering
- Electrical machines

- Power machines

Instrumentation and control

- Instruments and measurements
- Control system

Electronics

- Analog and digital electronics
- Power electronics

MECHANICAL ENGINEERING

The module assesses a student's skills, knowledge and understanding of the core principles/concepts in the branch of mechanical engineering.

Befitting Job Functions/Profiles: Mechanical Engineer, Research and Development, Automation Engineer, Product Engineer, Technical Content Developer, Sales and Operations in industry processes, etc.

Number of Questions: 30

Module Duration: 25 min

Detailed Syllabus:

Manufacturing Science

- Engineering materials
- Production engineering
- CAD/CAM
- Industrial engineering

Thermodynamics and IC Engines

- Thermodynamic cycles and steam generators
- IC engines
- Heat transfer, refrigeration and air conditioning

Fluid and Machine Mechanics

- Fluid mechanics and fluid machinery
- Strength of materials
- Theory of machines
- Machine design

CIVIL ENGINEERING

The module focuses on testing a student on general principles of mechanics and construction, and requires the candidates to apply these principles in practical based problems.

Befitting Job Functions/Profiles: Civil Engineer, Research Associate, Site Engineer, Design Engineer, Structural Engineer, Sales and Operations Manager/Executive - Industrial Processes, Technical Content Developer, etc.

Number of Questions: 25

Module Duration: 20 min

Detailed Syllabus:

Structural Engineering

- Applied mechanics
- Strength of materials
- Building materials and construction
- Theory of structures
- Steel structures
- Concrete technology
- R.C.C. Design

Geotechnical and Water Resources Engineering

- Soil mechanics
- Hydraulic engineering
- Water supply engineering

Transportation Engineering and Surveying

- Highways engineering
- Railway engineering

- Estimation and costing
- Surveying

INSTRUMENTATION ENGINEERING

The module focuses on testing a student on theoretical knowledge as well as practical concepts in the branch of instrumentation engineering.

Befitting Job Functions/Profiles: Instrumentation Engineer, Automation Engineer, Research Scientist, Design Engineer, Plant Engineer, Process Engineer, Maintenance Engineer, etc.

Number of Questions: 25

Module Duration: 20 min

Detailed Syllabus:

Instrumentation and Control

- Transducers and industrial instrumentation
- Analytical and optical instrumentation
- Electronic instrumentation and measurements
- Control systems and process control

Electronics

- Analog electronics
- Digital electronics
- Microprocessor and microcontroller

Signals and Communication System

- Signal and systems
- Communications
- Fundamentals of network analysis and synthesis

INDUSTRIAL ENGINEERING

The module focuses on testing a student on theoretical knowledge as well as practical concepts of engineering analysis, design and management.

Befitting Job Functions/Profiles: Industrial Engineer, Process Engineer, Quality Engineer, Technical Content Developer, Financial Engineer, Plant Engineer, etc.

Number of Questions: 18

Module Duration: 15 min

Detailed Syllabus:

Design of Manufacturing Systems

- Product design and development
- Work system design
- Facility design

Quality Control and Management

- Quality management
- Production planning and inventory control
- Management information system

Reliability and Costing

- Reliability and maintenance
- Operation research
- Engineering economy and costing

PRODUCTION ENGINEERING

The module focuses on testing a student on theoretical and practical concepts of design, development and implementation of new production processes, information and control systems, computer controlled inspection, assembly and handling.

Befitting Job Functions/Profiles: Process Engineer, Project Design Engineer, Quality Control Engineer, Service Engineer, Maintenance Engineer, etc.

Number of Questions: 20

Module Duration: 15 min

Detailed Syllabus:

Production Technology and Analysis

- Metal casting, forming and joining
- Manufacturing Analysis

Metal Cutting and Tool Design

- Machining and machine tool operators
- Tool engineering
- Metrology and inspection

Material Science and CIM

- Polymers and composites
- Computer integrated manufacturing

METALLURGICAL ENGINEERING

The module focuses on testing a student on theoretical knowledge as well as practical concepts in the branch of metallurgical engineering.

Befitting Job Functions/Profiles: Process Metallurgists, Design Engineer, Metallurgical R&D Lab Technician, Welding Engineer, Quality Planning Engineer, Plant Equipment Engineer and Ballistics Engineer.

Number of Questions: 25

Module Duration: 18 min

Detailed Syllabus:

Process Metallurgy

- Fuels and furnaces mineral beneficiation
- Non Ferrous Technology - Iron and steel

- Metallurgical thermodynamics

Industrial Metallurgy

- Metal casting, joining and forming
- Corrosion science

Physical Metallurgy

- Non ferrous materials
- Phase transformation and heat treatment
- Material testing and characterization

CHEMICAL ENGINEERING

The module focuses on testing a student on principles of chemistry, physics and material science in practical and industrial based problems.

Befitting Job Functions/Profiles: Chemical Engineer, Research Scientist, Manufacturer (Chemical Industry), Quality Engineer, Sales and Operations Manager/Executive for Industrial Processes, Technical Content Developer, etc.

Number of Questions: 26

Module Duration: 25 min

Detailed Syllabus:

Transport Phenomena

- Fluid mechanics
- Heat transfer
- Mass transfer

Chemical Process Engineering and Technology

- Process engineering and technology
- Chemical technology

Chemical Process Principles and Design

- Chemical reaction engineering
- Chemical engineering thermodynamics
- Stoichiometry and process calculations

AUTOMOTIVE ENGINEERING

The module focuses on testing a student on theoretical knowledge as well as practical concepts of automobile design and testing, experimental/scientific methods related to automotive engineering.

Befitting Job Functions/Profiles: Aerospace Engineer, Marine Engineer, Design Engineer, Research and Development Engineer, Sales Engineer, Technical Content Developer, etc.

Number of Questions: 24

Module Duration: 16 min

Detailed Syllabus:

Auto Engine

- Engine classification
- Engine fuel system
- Cooling and lubrication

Auto vehicle technology and Electrical

- Frame, body, clutch and brake
- Axle and steering system
- Transmission, differential, propeller shaft

Auto Maintenance and Turn Up

- Preventive maintenance
- Troubles and tuning
- Auto-inspection and tuning

PAINT TECHNOLOGY

The module focuses on testing a student on theoretical knowledge as well as practical concepts in the branch of paint technology.

Befitting Job Functions/Profiles: Paint Technologists in paint manufacturing companies and home furnishing companies, Research and Development, Quality Assurance, Production, Marketing, Technical Assistants/Executives.

Number of Questions: 20

Module Duration: 15 min

Detailed Syllabus:

Raw Materials and Precursors

- Introduction to components of surface coatings
- Organic, inorganic pigments, extenders, dyestuff, natural resins and polymers
- Synthetic resins and polymers

Coating – Manufacturing, Evaluation, Types

- Formulation principles and manufacturing of coatings
- Coating properties and evaluation
- Industrial and specialty coatings, decorative and eco-friendly coatings

Paint Application and Troubleshooting

- Surface treatment and coating applications
- Coating defects

POLYMER TECHNOLOGY

The module assesses both the theoretical as well as practical knowledge of the candidate across various topics like polymer chemistry, processing, testing, etc.

Befitting Job Functions/Profiles: Production Engineers or Technologists, Quality Control Inspectors and Polymer Specialists

Number of Questions: 25

Module Duration: 18 min

Detailed Syllabus:

Polymer Chemistry and Characterization

- Chemistry of polymers
- Polymer characterization

Polymer Synthesis and Properties

- Synthesis and properties
- Polymer processing
- Polymer rheology

Application of Polymers

- Polymer testing
- Polymer technology
- Polymer blends and composites

CHEMISTRY

The module assesses the candidates on the various laws, theories and principles governing the various physical phenomena in chemistry.

Befitting Job Functions/Profiles: Laboratory Assistant, Scientist, Research and Development, Chemist, Sales Representative, etc.

Number of Questions: 29

Module Duration: 16 min

Detailed Syllabus:

Physical Chemistry

- Atomic structure
- Chemical bonding

- Gaseous state
- Chemical thermodynamics
- Chemical and ionic equilibrium
- Solutions and colligative properties
- Electrochemistry
- Chemical kinetics

Inorganic Chemistry

- Periodic table and periodic properties
- s, p and d-block elements
- Coordination compounds

Organic Chemistry

- Purification and characterization of organic compounds
- Types of organic reactions

MANAGEMENT GRADUATES

BANKING & FINANCIAL SERVICES

The module has been designed to check general financial knowledge and its application for a graduate in all subject areas that affect a financial manager's decisions.

Befitting Job Functions/Profiles: Accounting Managers, Corporate Controllers, Chief Financial Officers, Treasurers and Finance Officers, Cash Managers, Management Consultants.

Number of Questions: 27

Module Duration: 20 min

Detailed Syllabus:

Investment Products

- Stocks

- Bonds
- Mutual Funds

Banking Products

- Banking
- Debt

Basic Economics and Taxation

- Macro Economics
- Taxation

MARKETING

The module assesses the candidates for all aspects of marketing ranging from fundamentals, to market research, planning and strategy and principles of economics all of which are closely linked and would be required by a marketing professional.

Befitting Job Functions/Profiles: Sales Manager/Executive, Marketing Manager/Executive, etc.

Number of Questions: 27

Module Duration: 18 min

Detailed Syllabus:

General Marketing

- Marketing planning and strategy
- Marketing management
- Principles of economics

Brand Planning

- Brand management
- Advertising management
- Consumer behavior
- Marketing research

Sales and Distribution Management

- Sales management
- Distribution models
- Channels management

HUMAN RESOURCES (HR)

The module tests particular areas of candidate's strength and identifies whether the candidate is suited for a specialist or a generalist profile in HR.

Befitting Job Functions/Profiles: HR/Recruitment Manager/Executive, Training Manager/Executive, IT Recruiter, Sourcing Executive/Manager, etc.

Number of Questions: 25

Module Duration: 16 min

Detailed Syllabus:

HR Planning and Strategy

- Basics of human resource
- Human resource planning
- Human resource information system
- Strategic human resource management

Organizational behavior

- Industrial behavior
- Group behavior
- Organizational structure and design

Specialist HR Functions

- Industrial relations and development
- Performance management selection
- Training and development

OPERATIONS

The module assesses MBA students on their understanding of basic concepts involved in Operations Management, laying greater emphasis on the practical aspects of operations.

Befitting Job Functions/Profiles: Operations Executive/Manager, Operation Research Associate, Supply Chain Manager, etc.

Number of Questions: 22

Module Duration: 25 min

Detailed Syllabus:

Planning and Development

- Capacity and Facility planning
- Process selection and Project planning
- Product design and development

Supply Chain Management

- Sourcing and purchase management
- Logistics and warehousing
- Inventory management
- Resources planning

Quality Management

- Statistical quality control and Control charts
- Acceptance sampling
- Operating characteristic curve
- Quality management, ISO, six sigma

BASIC STATISTICS

The module assesses MBA students on their understanding of basic concepts and methods of statistics, laying emphasis on quantitative methods and statistical techniques used to investigate and interpret statistical data in order to arrive at meaningful conclusions.

Befitting Job Functions/Profiles: Business Consultant, Business Analyst/Associate, Research Analyst/Associate, Accountant, etc.

Number of Questions: 20

Module Duration: 30 min

Detailed Syllabus:

Exploratory Analysis

- Statistical survey and presentation of data
- Measures of central tendency
- Measures of dispersion
- Skewness
- Design of experiments, sampling, sampling error, sampling bias

Statistical inference

- Formulating null and alternate hypothesis
- Type I and Type II errors
- z-test/t-test, p-values
- Chi-square distribution
- Confidence intervals
- Correlation
- Regression
- Multivariate analysis

Probability

- Basics of probability
- Probability density function (PDF)
- Cumulative distribution function (CDF)

- Standard distributions

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