

Management Information Systems

Management Information Systems challenges members to apply their knowledge of how businesses use technology to manage information and support decision-making. Through an objective test and a role play scenario, members analyze a small business's environment and recommend effective information system solutions.

Event Overview

Division	High School	
Event Type	Team of 1, 2 or 3 members	
Event Category	Role Play	
Event Elements	Objective Test and Interactive Role Play	

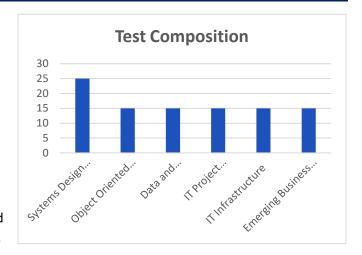
Educational Alignments

Career Cluster Framework Connection	Digital Technology	
NACE Competency Alignment	Career & Self-Development, Communication,	
	Leadership, Professionalism, Technology	

Knowledge Areas

- Systems Design and Analysis
- Object Oriented Programming Concepts
- Data and Information Management
- IT Project Management
- IT Infrastructure
- Emerging Business Technologies

Test questions and role plays are based on the knowledge statements and objectives outlined for this event. Detailed objectives can be found in the study guide included in these guidelines.



District

Testing will take place prior to the District Leadership Conference. Testing must occur at school under the supervision of an adult proctor. Check the Call to Conference for your District for specific instructions and deadlines, and any changes to presentation or prep timings at your conference.

State

See below for list of required competition items; Colorado FBLA requires the same items set by National FBLA at our State Leadership Conference. Colorado FBLA will also provide the items listed below. Any event with a test will have an online testing component on-site at the State Leadership Conference. Team members must complete their tests individually and scores will be averaged for a team score.



Management Information Systems

All competitors will present to the judges in a preliminary round. The team-averaged test scores and preliminary presentation scores will be calculated to determine the list of finalists to present to judges in the final round. During the final round, only the role play scores will be used to determine winners.

National

Required Competition Items

	Items Competitor Must Provide	Items FBLA Provides
Objective Test	 Sharpened pencil Fully powered device for online testing Conference-provided nametag Photo identification Attire that meets the FBLA Dress Code 	 One piece of scratch paper per competitor Internet access Test login information (link & password provided at test checkin)
Role Play	 Conference-provided nametag Photo identification Attire that meets the FBLA Dress Code 	 Two notecards per competitor Pencil Secret role play problem/scenario Flip chart paper/markers Easel for placement of flipchart during presentation

Important FBLA Documents

• Competitors should be familiar with the Competitive Events <u>Policy & Procedures Manual</u>, <u>Honor Code</u>, <u>Code of Conduct</u>, and <u>Dress Code</u>.

Eligibility Requirements

To participate in FBLA competitive events at the National Leadership Conference (NLC), the following criteria must be met:

- **Membership Deadline**: FBLA national membership dues must be paid to the specific division by 11:59 p.m. Eastern Time on March 1 of the current school year.
- Repeat Competitors: Members may only compete in an event at the NLC more than once if they
 have not previously placed in the top 10 of that event at the NLC. If a member places in the top
 10 of an event at the NLC, they are no longer eligible to compete in that event at future NLCs,
 unless the event has been modified beyond a name change. Chapter events are exempt from
 this procedure.
- **Conference Registration**: Members must be officially registered for the NLC and must pay the national conference registration fee to participate.
- Official Hotel Requirement: To be eligible to compete, competitors must stay within the official FBLA housing block.
- State Entry Limits: Each state may submit up to four entries per event.



Management Information Systems

- Event Participation Limits: Each member may participate in:
 - One individual or team event, and
 - One chapter event (e.g., Community Service Project or Local Chapter Annual Business Report).
- **Participation Requirement**: To be eligible for an award, each competitor must complete all components of the event at the National Leadership Conference.
- Team Composition: All members of a team must be from the same local chapter.
- Identification at Check-in: Competitors must present valid photo identification (physical or digital) that matches the name on their conference name badge. Acceptable forms include a driver's license, passport, state-issued ID, or school ID.
- Late Arrivals: Competitors will be allowed to compete until such time that the results are finalized, or participation would impact the fairness and integrity of the event, as determined by Competitive Events staff. If judges have left the competitive event area, it is no longer possible to compete. Five penalty points will be assessed for late arrivals in any competitive event.
- Event Schedule Notes:
 - Some events may begin before the Opening Session.
 - All schedules are posted in local time for the NLC host city.
 - Schedule changes are not permitted.

Event Administration

This event consists of two phases: an objective test and an interactive role play.

Objective Test

Each competitor will complete a 100-question multiple-choice objective test.

Test Duration

• **Test Duration:** 50 minutes

Format

• This event consists of an online objective test that is proctored and completed on-site at the National Leadership Conference (NLC).

Materials

Reference or study materials are not permitted at the testing site.

Electronic Devices

• All electronic devices, including cell phones, smart watches, and similar technology, must be powered off prior to the start of the competition.

Team Tests

• If competing as a team, competitors must begin testing individually within a few minutes of one another. Each competitor's score will be averaged to determine the team's overall test score.

Calculators

 Personal calculators are not allowed; an online calculator will be available within the testing platform.

Question Review

 Competitors may flag questions within the testing platform for review prior to the finalization of results at the NLC.



Management Information Systems

Interactive Role Play Details

The team-averaged objective test score determines the top 15 teams advancing to role play round.

Timing Structure

- Preparation Time: 20 minutes (a one-minute warning will be provided)
- **Presentation:** 7 minutes (a one-minute warning will be provided)
- Question & Answer (Q&A): None

Role Play Prompt

Competitors will be provided with a single copy of a management information system—
related scenario or problem at the beginning of their assigned preparation time. This copy
must be shared among team members and may only be accessed within the designated
preparation area.

Notecard Use

• Each competitor will receive two notecards for use during preparation and the presentation. Information may be written on both sides. Notecards will be collected after the role play.

Materials

• No technology, reference materials, visuals, or props may be used.

Interaction with Judges

• Judges may ask questions during the presentation as part of the interactive role play format.

Audience

• Role play presentations are closed to all conference attendees.

Confidentiality

• To maintain fairness, competitors must not discuss or share the role play prompt until the event concludes.

Scoring

- The team-averaged objective test score determines the top 15 teams advancing to role play round.
- The role play round scores only will be used to determine winners.
- Objective test scores will be used to break a tie.
- All judging decisions are final. Results announced at the National Leadership Conference are considered official and will not be changed after the conclusion of the National Leadership Conference.

Penalty Points

- Competitors may be disqualified if they violate the Code of Conduct or the Honor Code.
- Five points are deducted if competitors do not follow the Dress Code or are late to their assigned presentation time.

Electronic Devices

 Unless approved as part of a documented accommodation, all cell phones, smartwatches, electronic devices, and headphones must be turned off and stored away before the competition begins. Visible devices during the event will be considered a violation of the FBLA Honor Code.



Management Information Systems

Recognition

• A maximum of 10 entries (individuals or teams) may be recognized per event.

Americans with Disabilities Act (ADA)

FBLA complies with the Americans with Disabilities Act (ADA) by providing reasonable
accommodations for competitors. Accommodation requests must be submitted through the
conference registration system by the official registration deadline. All requests will be
reviewed, and additional documentation may be required to determine eligibility and
appropriate support.

Recording of Presentations

- Unauthorized audio or video recording is strictly prohibited in all competitive events.
- FBLA reserves the right to record presentations for educational, training, or archival purposes.
 Competitors should be aware that their presentations may be recorded by FBLA-authorized personnel.

Sample Preparation Resources

 Official sample test items and role plays can be found in <u>FBLA Connect</u>. These sample items showcase the types of questions that may be asked on the test and familiarize competitors with the multiple-choice item options.



Management Information Systems

Study Guide: Knowledge Areas and Objectives

Systems Design and Analysis (25 test items)

- 1. Describe typical phases of the Systems Development Life Cycle
- 2. Discuss methods for gathering and analyzing system requirements
- 3. Discuss the Agile methodology for software and project management
- 4. Discuss the Waterfall model of software and project management
- 5. Determine appropriate features for a new system based on gathered requirements
- 6. Describe the use of feasibility studies for financial, technical, and organizational analysis
- 7. Describe terms related to system design (e.g., input, output, controls, procedures)
- 8. Distinguish between validation and verification of a system
- 9. Describe the roles of stakeholders, end users, managers, and developers in system development
- 10. Discuss workflow artifacts used in system design and analysis (e.g., dataflow diagrams, entity relationship diagrams, class diagrams)

Object Oriented Programming Concepts (15 test items)

- 1. Describe features of object-oriented programming (OOP) languages (e.g., classes, objects, libraries)
- 2. Explain how business requirements can be translated into classes and functions
- 3. Describe key features of object-oriented programming (e.g., encapsulation, abstraction, polymorphism, inheritance)
- 4. Discuss the use and creation of libraries for software development
- 5. Distinguish between classes, objects, methods, and attributes
- 6. Identify modern OOP languages and frameworks
- 7. Analyze the benefits and drawbacks of OOP

Data and Information Management (15 test items)

- 1. Translate simple user stories and requirements into SQL statements
- Describe terms related to relational database structure (e.g., relations, tuples, fields, records, keys)
- 3. Evaluate database schemas based on business requirements
- 4. Describe the importance of data redundancy
- 5. Describe best practices for data security and integrity (e.g., encryption, access control)
- 6. Describe NoSQL databases
- 7. Discuss the pros and cons of data storage methods (e.g., local, cloud, hybrid)
- 8. Discuss the use of structured, unstructured, and semi-structured data for business intelligence and decision making
- 9. Describe the use of Online Analytical Processing (OLAP)

IT Project Management (15 test items)

- 1. Describe the use of Agile principles in information systems development
- 2. Describe the processes of Scrum methodology for managing information systems projects
- 3. Describe the use of Waterfall methodology in information systems development
- 4. Discuss Agile methodology tenants (e.g., individuals and interactions, working software)
- 5. Select an appropriate methodology for a software or IT project
- 6. Discuss the consequences of poor IT project management on budget, schedule, and performance (e.g., runaway projects)



Management Information Systems

- 7. Discuss the steps of the project life cycle
- 8. Describe the use of work products and tools for project management (e.g., kanban boards, user stories, spreadsheets)
- 9. Discuss the roles of end users and stakeholders in IT project development

IT Infrastructure (15 test items)

- 1. Describe the importance of IT infrastructure to business processes
- 2. Describe components of IT infrastructure (e.g., hardware, software, network components)
- 3. Describe how cloud and virtual components contribute to IT infrastructure
- 4. Discuss the business value of secure IT infrastructure
- 5. Describe the benefits of cloud-based architecture for businesses
- 6. Discuss the performance and cost tradeoffs of network topologies (e.g., mesh, star, bus)
- 7. Identify layers of the OSI and TCP/IP model
- 8. Describe services that contribute to business IT infrastructure (e.g., computing platforms, telecommunications services, data management services)
- 9. Discuss how to avoid common IT security vulnerabilities (e.g., authentication, authorization, access control)

Emerging Business Technologies (15 test items)

- 1. Discuss the effects of automation on businesses
- 2. Discuss the uses of artificial intelligence for businesses (e.g., customer support, automation, data insights)
- 3. Explain core characteristics of blockchain technology
- 4. Discuss the uses of blockchain for data security and integrity
- 5. Describe the Internet of Things (IoT)
- 6. Describe the characteristics of the cloud
- 7. Identify cloud-based applications and services (e.g., SaaS, IaaS, AWS, Canva)

References for Knowledge Areas & Objectives

Association for Computing Machinery. IS2020 A Competency Model for Undergraduate Programs in Information Systems. https://www.acm.org/binaries/content/assets/education/curricula-recommendations/is2020.pdf

Coursera. What is MIS (Management Information Systems)? Degree Guide. https://www.coursera.org/articles/mis

GeeksforGeeks. Management information system (MIS). https://www.geeksforgeeks.org/computer-organization-architecture/management-information-system-mis/

Laudon, K., and Laudon, J. Management Information Systems (Fifteenth Edition). https://industri.fatek.unpatti.ac.id/wp-content/uploads/2019/03/188-Management-Information-Systems-Managing-the-Digital-Firm-Kenneth-C.-Laudon-Jane-P.-Laudon-Edisi-15-2017.pdf

Cohesity. *Unlocking the power of the management information system.* https://www.cohesity.com/glossary/management-information-system/

Tutorials Point. MIS – Introduction.

https://www.tutorialspoint.com/management information system/management information system.htm



Management Information Systems

Expectation Item	Not Demonstrated	Below Expectations	Meets Expectations	Exceeds	Points
Expectation item	Not Demonstrated	Delow Expectations	Wieets Expectations	Expectations	Earned
Demonstrates understanding of the role play and defines problem(s) to be solved	No description or role play synopsis	Describes and provides role play synopsis OR	Describes and provides role play synopsis AND	Demonstrates expertise of role play synopsis	
	provided; no problems defined	defines the problem(s)	defines the problem(s)	AND definition of the problem(s)	
	0 points	1-6 points	7-8 points	9-10 points	
Identifies alternatives and the pro(s) and con(s) of each	No alternatives identified	Alternative(s) given but pro(s) and/or con(s) are not analyzed	At least two alternatives given, and pro(s) and con(s) are analyzed	Multiple alternatives given and multiple pros and cons analyzed for each	
	0 points	1-9 points	10-16 points	17-20 points	
Identifies logical solution and aspects of implementation	No solution identified	Solution provided, but implementation plan not developed	Logical solution and implementation plan provided and developed	Feasible solution and implementation plan developed, and necessary resources identified	
	0 points	1-9 points	10-16 points	17-20 points	
Demonstrates knowledge and understanding of the event knowledge areas: Systems Design and Analysis / Object Oriented Programming Concepts / Data and Information Management / IT Project Management / IT Infrastructure /	No knowledge areas demonstrated	One or two knowledge areas are demonstrated	Three knowledge areas are demonstrated	Four or more knowledge areas are demonstrated	
Emerging Business Technologies	0 points	1-9 points	10-16 points	17-20 points	
Presentation Delivery	·	·			
Statements are well-organized and clearly stated	Competitor(s) did not appear prepared	Competitor(s) were prepared, but flow was not logical	Presentation flowed in logical sequence	Presentation flowed in a logical sequence; statements were well organized	
	0 points	1-6 points	7-8 points	9-10 points	
Consistently displays confidence, poised body language, engaging eye contact, and effective voice projection.	Did not demonstrate any of the listed skills	Demonstrated 1-2 of the listed skills (confidence, body language, eye contact, or voice projection)	Demonstrated 3 of the listed skills (confidence, body language, eye contact, or voice projection)	Demonstrated all skills, enhancing the overall presentation	
	0 points	1-6 points	7-8 points	9-10 points	
Demonstrates the ability to effectively answer questions	Unable to answer questions	Does not completely answer questions	Completely answers questions	Interacted with the judges in the process of completely answering questions	
	0 points	1-6 points	7-8 points	9-10 points	
	Staff Only: Per	nalty Points (5 points for di	ess code penalty and/or 5 poir	nts for late arrival penalty)	
			Prese	ntation Total (100 points)	
Name(s):					
School:					
Judge Signature:					Date:

Comments:



Colorado