B. Reading Drawings and Schedules – 6, 9, 12, 50, 51, 52, 54, 55, 56, 57, 59, 67, 79
   1. Sitework
   2. Concrete and Forms
   3. Rebar
   4. Structural Steel
   5. Carpentry
   6. Exterior Finishes
   7. Doors and Windows
   8. Interior Finishes
   9. Mechanical Systems, Processes, and Equipment
   10. Electrical Systems, Controls, and Communications

V. BIDDING AND ESTIMATING

A. Bidding Process – 3, 4, 5, 6, 7, 8, 9, 13, 14, 17, 19, 20, 21, 22, 23, 31,
   1. Bid Documents
   2. Scales
   3. Types of Specifications
   4. Laws, Regulations, and Codes
   5. Site Evaluation and Walk-thru
   6. Insurance and Bonds
   7. Value Engineering and Life cycle Costing
   8. Temporary Site Layout

B. Estimates – 11, 13, 18, 36, 46,
   1. Cost Breakdown Structure
   2. Conceptual
   3. Total Future Costs
   3. Material Components
   4. Equipment Productivity

C. Quantity Takeoff - 13
   1. Excavation
   2. Forms, Rebar, Concrete
   3. Rough Carpentry
   4. Interior Finishes

VI. BUDGETING, COSTS AND COST CONTROL

A. Budgeting - 11
   1. Schedule of Values
   2. Contingencies and Allowances

6. Fall Protection

C. Safety Procedures Interpretation – 26, 28, 32, 33, 64
   1. Sloped and Shored Excavations
   2. Scaffolding
   3. Personal protection
   4. Electrical Protection

3. Final Payment/Completion

F. Environmental Controls – 7, 23, 24, 42, 50, 65, 80
1. Sustainability
2. Storm Water
3. Hazardous Materials

Level II (CPC) Examination Specifications

	APPLICATION & ANALYSIS CONTENT AREA	2022 PERCENTAGE
I.	PROJECT SCOPE DEVELOPMENT	11.0
II.	EMPLOYMENT PRACTICES	9.0
III.	WORKING RELATIONSHIPS	12.0
IV.	CONSTRUCTION START-UP AND SUPPORT	10.0
V.	CONSTRUCTION RESOURCE MANAGEMENT	12.0
VI.	CONSTRUCTION COST CONTROL	12.0
VII.	PROJECT CLOSEOUT	10.0
VIII.	CONSTRUCTION RISK MANAGEMENT	11.0
IX.	ETHICS	13.0
	TOTAL	100.0

The numbers noted besides each category in the below specifications correspond to those in the Certification Body of Knowledge (see Commission Document No. 28).

I. PROJECT SCOPE DEVELOPMENT

A. Project Participants Roles – 1, 2, 21, 22, 24, 29, 30, 38, 39, 40,
1. Owner
2.

5. Government Agencies
6. Subcontractor/Specialty Contractor

B. Conceptual Estimating – 13, 16, 18
1. Assemblies Estimating
2. Model Area Estimating
3. Scope Development Classification Systems

C. Design Schedule and Review – 2, 12, 24
1. Schematic Design Schedule
2. Design Development Schedule
3. Bid Scope Development Schedule
4. Procurement and Lead-time Schedule

D. Cost Analysis Design Phases – 2, 4, 6, 8, 11, 14, 16, 18, 19, 20, 24
1. Value Engineering
2. Value Analysis
3. Life Cycle Costing
4. Variance Analysis
5. Constructability
6. Feasibility

E. Site Analysis – 2, 3, 5, 6, 7, 8, 9, 15, 19, 20, 21, 23, 24, 26
1. Environmental Conditions
2. Site conditions, Site survey and Geological conditions
3. Regulatory agencies, permits

F. Bid Scope Development – 1, 14, 17, 18, 19, 20, 21, 22, 38
1. Trade Bid Packages
2. Bid Breakdown and Proposal form requests

G. Bid Document Development – 1, 14, 17, 21
1 Notice to Bidders, Instructions to Bidders, Addenda, General Requirement
2. Pre-qualification of Bidders
3. Pre-bid Meetings
4. Public versus Private Bids

H. Bid Analysis and Selection/Recommendations – 14, 17, 19, 20
1. Construction Bid Scope Analysis
2. Subcontractor and Vendor Evaluation

K. Construction Contracts and Schedule – 2, 6, 12, 25
1. Construction Contracts
2. Construction Project Schedule with Lead times, Inspections

II. EMPLOYMENT PRACTICES

A. Employment Law – 2, 29, 38, 39, 40, 81, 82, 83, 84, 85, 86, 88
   1. Equal Employment Opportunity
   2. American with Disabilities Act
   3. Immigration Act

B. Discrimination Law – 2, 29, 38, 39, 40, 81, 82, 83, 84, 85, 86, 87, 88
   1. Hiring Discrimination
   2. Employment Discrimination
   3. Sexual Harassment
   4. Hostile Work Environment

C Management Responsibilities – 2, 29, 81, 82, 83, 84, 85, 86, 87, 88
   1. Management Liability
   2. Employment Documentation

D. Construction Labor Law - 2, 29, 38, 39, 40, 81, 82, 83, 84, 85, 86, 87, 88
   1. Davis-Bacon Act
   2. Fair Labor Standards Act
   3. Norris-LaGuardia Act
   4. National Labor Relations Act
   5. Labor-Management Relations Act (Taft-Hartley Act)
   6. Doctrine of Separate Gates
   7. Minority Goals

III. WORKING RELATIONSHIPS

A. Team building Skills – 84, 85, 87, 88
   1. Leadership Qualities
   2. Team Strengths and Weakness
   3. Communication and Listening Skills
   4. Minimize Interpersonal Conflict
   5. Coaching skills

B. Presentation and Facilitation Skills – 50, 51, 52, 63, 70, 71, 82, 84, 87
   1. Meeting Preparation
   2. Meeting Leadership Skills
   3. Meeting Documentation

C. Problem Solving and Negotiation Skills – 1, 21, 35, 39, 50, 51, 52, 53, 77, 78, 80, 84, 85, 86, 87, 88
   1. Problem Identification/Root Causes
   2. Problem Solving Methods

3. Training

VI. CONSTRUCTION COST CONTROL

A. Cost Comparison and Forecasting – 58, 72, 73, 74, 75, 76
1. Budgets and Cost Breakdown Structure
2. Productivity Rates and Earned Workhours
3. Forecast Costs at Completion
4. Cost Reconciliation
5. Contingency
6. Allowances

B. Change Control and Claims Impact – 46, 54, 55, 56, 57, 58, 72, 73, 74, 75
1. Changes and Cost Impact
2. Crashing and Schedule Impact

C. Contract Interpretation – 30, 38, 40, 46, 51, 52, 80
1. Changes
2. Notification

D. Progress Payment Terms – 30, 54, 55, 56, 57, 58, 68, 69, 72, 73, 74, 75, 77, 78
1. Subcontractor and Vendor Evaluation
2. Partial Lien Releases
3. Title/Ownership

E. Financial Statements – 11, 68, 69, 72, 73, 74, 75, 76
1. Financial Calculations and Ratios

VII. PROJECT CLOSEOUT

A. Closeout Process – 50, 51, 52, 54, 59, 60, 61, 62, 63, 65, 66, 67
1. Punch Lists
2. Substantial Completion
3. Final Completion
4. Occupancy
5. Commissioning Start-up and Owner Personnel Training
6. Demobilize Site

B. Claims Closeout Procedures – 29, 30, 50, 51, 52, 80
1. Resolution

C. Documentation Turnover – 67, 79
1. Warranty Protocol
2. Owner and Operating Manuals
3. Project Record Documents (As Builts)

D. Final Payment Procedures – 58, 68, 69, 72, 74, 76, 77, 78
   1. Retainage
   2. Lien Releases
   3. Final Draw

VIII. CONSTRUCTION RISK MANAGEMENT

A. Risk Assessment – 28, 31, 32, 80
   1. Accident and Injury Statistics and Costs
   2. Project Uncertainty and Risk Allocation
   3. Loss Ratio and Risk
   4. Financial Risk

B. Workers Compensation Costs and Liability – 28, 31,
   1. Workers Compensation and Experience Modification Rating
   2. Criminal Liability and Due Diligence
   3. Project Management Safety Liability

C. Safety Process and Culture – 28, 32, 33, 50, 52, 64,
   1. Behavior-Based Safety
   2. Safety Management Techniques
   3. Safety Orientation
   4. Pre-task Safety Planning
   5. Workplace Focused Safety (Drugs)

D. Safety Procedures and Documentation – 26, 28, 32, 33, 50, 52, 64, 80
   1. General Duty Clause
   2. Multi-employer Work Sites
   3. Written Documentation Requirements
   4. Confined Space Requirements
   5. Scaffolds
   6. Lock-out, Tag-out Requirements
   7. Hazardous Communication and MSDS
   8. Fall Protection and PPE
   9. Excavation

IX. ETHICS

A. Business Ethics – 10, 14, 16, 17, 21, 22, 35, 38, 39, 40, 43, 46, 51, 52, 53, 59, 60, 64, 69, 77, 78, 80,
   1. Bidding

2. General Public/Media
3. Reputation
4. Confidentiality

B. Professional Practice Ethics – 1, 10, 21, 22, 32, 39, 46, 50, 51, 52, 53, 55, 56, 57, 58, 59, 60, 63, 64, 69, 70, 74, 79, 80, 82, 83, 84, 85, 86, 88
1. Constructor Code of Ethics
2. Situational Ethics
3.