

FRONT COVER NOTES FOR
SPECIALTY TRADE CONTRACTOR ESTIMATOR
EXAMINATION SPECIFICATION

This examination has been developed based on the following format:

<u>SECTION I</u>	<u>VALUE</u>
(1) 50 Multiple Choice Items	50%
A. Items - General Skills	7%
B. Items - Pre-Bid/ Pre-Proposal	10%
C. Items - Quantity Take-Off	13%
D. Items - Costing	8%
E. Items - Bid/ Proposal	8%
F. Items – Post-Bid	4%
 <u>SECTION II</u>	
(1) Quantity Take-Off Item	20%
(2) Essay/Letter Writing Item	10%
(3) Working With Specifications	20%
 TOTAL VALUE	100%

SECTION: GENERAL SKILLS**VALUE: 7 %**

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
1 1 item	Ensure a list of acceptable suppliers, carriers and rental companies is maintained. (43)	<ul style="list-style-type: none"> a) Ability to assess the reliability of service. b) Ability to evaluate the cost in comparison to reliability.
2 1 item	Communicate clearly with own forces, owner, client, consultant, regulatory agencies, and other contractors. (30)	<ul style="list-style-type: none"> a) Ability to communicate various types of contracts to field staff. b) Ability to produce written correspondence and reports. c) Ability to make oral presentations. d) Ability to electronically communicate by phone, Internet, etc. e) Ability to free-hand draw. f) Ability to maintain good relations with owner, client, and consultants. g) Knowledge of the architect's/consulting engineer's role. h) Knowledge of the contractual responsibilities of the owner, client and consultant. i) Knowledge of authority and legal responsibilities of government inspectors. j) Knowledge of code requirements for specialty trades. k) Knowledge of contract documents and progress information usually required by owner/client/consultants. l) Ability to use computer software packages. m) Knowledge of cost implications of legislation n) Ability to respect the company's policies and procedures and understand the level of authority.

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
3 1 item	Keep abreast of technological changes in industry. (46)	<ul style="list-style-type: none"> a) Ability to maintain a current library of codes and regulations. b) Ability to maintain current estimating practices. c) Ability to maintain current data books. d) Knowledge of micro/macro economics.
4 1 item	Establish a historical database of information from jobs and/or estimates completed. (1)	<ul style="list-style-type: none"> a) Knowledge of computer databases containing historical cost information. b) Ability to maintain an efficient manual database. c) Ability to maintain a historical database. d) Knowledge of the master format (detailed) and elemental cost systems (preliminary). e) Ability to prepare and maintain labour productivity records. f) Ability to perform cost benefit or life cycle analysis. g) Ability to conduct a time study of a unit cost of labour. h) Ability to compile a list, by project, on competitor's bidding practices.
5 1 item	Read the marketplace. (2)	<ul style="list-style-type: none"> a) Ability to effectively communicate orally and in writing. b) Ability to make presentations. c) Ability to use a historical database. d) Ability to report to management on company's overall performance and estimating accuracy in the market. e) Ability to report on competitor's bidding history.

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
6 1 item	Respond to design/build and construction requests. (47)	<ul style="list-style-type: none"> a) Knowledge of current codes and regulatory agencies. b) Knowledge of software packages. c) Ability to participate as a partner in a multi-disciplinary design/build team. d) Ability to perform elemental cost analysis. e) Ability to interpret a client's needs. f) Ability to respond to an expression of interest request. g) Ability to assemble pre-qualification documents.
7 1 item	Ensure material data is readily available and updated. (3)	<ul style="list-style-type: none"> a) Knowledge of product data catalogues. b) Knowledge of construction materials standards.

SECTION: PRE-BID/ PRE-PROPOSAL VALUE: 10%

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
8 1 item	Collect relevant information on prospective construction work. (7)	a) Ability to research prospective work. b) Ability to maintain a database of prospective work. c) Ability to assess the owner's financial capacity.
9 1 item	Determine, in consultation with senior management, which jobs to tender. (4)	a) Ability to determine the information required to make decision to bid a job. b) Ability to estimate the value of the project by unit cost or elemental cost analysis. c) Ability to report to Company management on main aspects of project to be tendered. d) Knowledge of types of bid. e) Knowledge of competitors. f) Ability to prepare a bid strategy.
10 1 item	Compile a checklist of all trade divisions. (5)	a) Knowledge of scope of work conditions imposed by local trade associations on their members. b) Ability to research contract items that subcontractors commonly exclude. c) Knowledge of local bid depository rules of procedure and scope of work. d) Ability to maintain a record of receipt and distribution of all bid documents (plans, specifications and addenda). e) Ability to solicit selected trade contractor quotations through trade journals, selected mailing, and telephoning.
11 3 items	Study plans, specifications, addenda and all construction conditions set by owner/ architect. (52)	a) Ability to detect early determination of any discrepancies, ambiguities, omissions, etc. in contract documents. b) Ability to study drawings and specifications early in the job. c) Knowledge of performance

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
		requirements (accelerated schedule, etc.) d) Ability to detect potential claims. e) Ability to be aware of any environmental conditions of the contract. f) Ability to understand the liability of errors or omissions in drawings and noting such to management and owner/consultant. g) Knowledge of document hierarchy.
12 1 item	Conduct pre-consultation site inspection in conjunction with project management. (51)	a) Ability to assess existing structure, utilities, storage space, obstructions, site access, etc. b) Ability to conduct a job site analysis (notes, pictures, reports).
13 1 item	Solicit competitive prices for rental or lease/purchase of equipment. (53)	a) Knowledge of availability, applications, cost effectiveness and capacities of various types of equipment. b) Knowledge of cost implications of lease vs. purchase. c) Ability to negotiate considerations. d) Knowledge of material specifications and costs.
14 1 item	Brief senior management on major bid assumptions. (25)	a) Ability to identify the risks associated with the project. b) Ability to identify unclear documentation. c) Ability to justify the cost estimate. d) Ability to express a confidence factor for subcontract awards. e) Ability to communicate the schedule. f) Ability to communicate the resources required to complete the project.
15 1 item	Brief senior management on market position. (26)	a) Ability to communicate the list of competitors. b) Ability to communicate the advantages of the project. c) Ability to communicate the disadvantages of the project.

SECTION: QUANTITY TAKE-OFF **VALUE: 13%**

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
16 3 items	Maintain standard procedures for all estimating work. (8)	<ul style="list-style-type: none"> a) Ability to use take-off and pricing sheets. b) Ability to use computer estimating packages. c) Ability to maintain an industry-wide standard method of measurement. d) Ability to maintain a company method of measurement.
17 3 items	Clarify with consultant all discrepancies, ambiguities, omissions, etc. (10)	<ul style="list-style-type: none"> a) Ability to accurately obtain written instruction on oral queries. b) Ability to accurately record all oral and written queries. c) Ability to accurately check and note all addenda.
18 3 items	Measure quantities from bid documents. (9)	<ul style="list-style-type: none"> a) Ability to interpret civil, architectural, structural, mechanical and electrical drawings. b) Ability to interpret specifications. c) Knowledge of document hierarchy. d) Ability to interpret codes and regulatory agency requirements. e) Ability to take-off quantities in the appropriate sequence. f) Ability to summarize and verify quantities. g) Knowledge of take-off quantities for such non-standard items as renovation, demolition, unique construction methods, specifications, etc. h) Knowledge of construction materials and methods used in existing buildings. i) Knowledge of new or innovative methods and materials. j) Ability to make imperial/metric conversions.

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
19 2 items	Coordinate and communicate with subcontractors/ suppliers on scope of work. (11)	a) Ability to effectively communicate orally and in writing. b) Ability to distribute addenda to subcontractors/ suppliers.
20 2 items	Preparing a take-off summary. (21)	a) Ability to compile all material, labour, and equipment to determine total cost. b) Knowledge of presenting summary to company convention. c) Ability to use computer software packages.

SECTION: COSTING**VALUE:****8%**

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
21 1 item	Cost standard work. (16)	<ul style="list-style-type: none"> a) Ability to interpret catalogues and applicable discounts. b) Ability to interpret supplier quotations and to ensure material conforms to specifications. c) Knowledge of types of equipment and standard applications. d) Ability to apply labour units.
22 1 item	Cost specialty work. (17)	<ul style="list-style-type: none"> a) Ability to interpret catalogues and applicable discounts. b) Ability to interpret supplier quotations and to ensure material conforms to specifications. c) Knowledge of types of equipment and standard applications. d) Ability to adjust labour for project condition.
23 1 item	Advise project management at tendering stage on construction methods to be used, and indirect costs of construction. (50)	<ul style="list-style-type: none"> a) Ability to assess requirements for supervision and indirect costs. b) Ability to keep abreast of new cost-effective methods of construction. c) Knowledge of all applicable project taxes. d) Ability to locate existing services.
24 1 item	Assist in preparation of construction schedule by construction team. (105)	<ul style="list-style-type: none"> a) Knowledge of bar chart, network diagramming (CPM/PERT) and other diagrammatic methods of scheduling. b) Knowledge of resources levelling throughout the project.

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
25 1 item	Analyze reports on out-of-town conditions. (54)	a) Ability to assess local labour situations, accessibility to site, travel requirements, lodging, local bylaws, availability of material and equipment, climate, etc. b) Ability to analyze local labour availability and productivity. c) Ability to perform on-site analysis of work and methods. d) Ability to conduct a risk analysis of taking the project. e) Ability to assess, in consultation with field supervision, construction methods and systems to be used in project.
26 1 item	Compile unit costs. (15)	a) Ability to compile all material, labour, equipment, and general requirements to determine unit prices. b) Ability to compile unit costs for additions and deletions.
27 1 item*	Analyze quotations submitted by subcontractors/ suppliers. (18)	a) Ability to prepare spreadsheets on specialty contractors and suppliers. b) Ability to compare prices submitted by contractors and suppliers.
28 1 item	Calculate contractor's costs. (19)	a) Ability to assess, in consultation with company management and project management, the cost of general requirements for: <ul style="list-style-type: none"> - supervision - temporary offices and administration - site access, protection and security - temporary utilities - construction facilities and service (surveys, trucking, cleanup, etc.) - hoisting - small tools and equipment. b) Ability to assess, in consultation with senior management, the estimated

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
		cost of bonds, insurance, permits, etc.
29 1 item	Calculating and compiling miscellaneous costs. (20)	a) Knowledge of cash allowances. b) Ability to cost solicited and unsolicited alternatives. c) Ability to prepare separate prices.
* Note: only test one of these tasks on the exam.		

SECTION: BID/ PROPOSAL**VALUE: 8%**

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
30 4 items	Complete tender submission. (22)	a) Knowledge of calculating unit prices, alternative prices, and other items commonly required in tender submission. b) Knowledge of company overhead and mark up. c) Ability to identify all applicable taxes to be included. d) Ability to obtain bonds. e) Ability to prepare tender forms.
31 4 items	Review and finalize bid submissions in consultation with management team. (23)	a) Ability to analyze construction methods. b) Knowledge of new methods of construction. c) Knowledge of the type of contract, contract partners, and local conditions.

SECTION: POST BID**VALUE:****4%**

TASK NO. & VALUE	TASK DESCRIPTION	SUPPORTING KNOWLEDGE AND ABILITIES
32 1 item	Communicate the scope of the estimate to the project management team. (27)	<ul style="list-style-type: none"> a) Ability to convey the special conditions about the project. b) Ability to convey the estimated plan of construction. c) Ability to participate as a team member. d) Ability to present the schedule.
33 21item	Analyzing project in detail to realize cost savings through redesign. (48)	<ul style="list-style-type: none"> a) Knowledge of design methods of construction. b) Knowledge of alternative methods of construction. c) Knowledge of alternative products and materials.
34 1 item	Assist in costing changes to contract. (28)	<ul style="list-style-type: none"> a) Knowledge of company procedures in processing change orders. b) Ability to determine impact costs for changes to the work.
35 1 item	Participate in post tender negotiations. (29)	<ul style="list-style-type: none"> a) Knowledge of negotiating skills. b) Ability to understand your costs.