

# PMI Professional in Business Analysis (PMI-PBA)<sup>®</sup>

EXAMINATION CONTENT OUTLINE

**Project Management Institute**

**PMI Professional in Business Analysis (PMI-PBA)<sup>®</sup>  
Examination Content Outline**

Published by: Project Management Institute, Inc.  
14 Campus Boulevard  
Newtown Square, Pennsylvania 19073-3299 USA.  
Phone: +610-356-4600  
Fax: +610-356-4647  
E-mail: [customercare@pmi.org](mailto:customercare@pmi.org)  
Internet: [www.PMI.org](http://www.PMI.org)

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## INTRODUCTION

The Project Management Institute (PMI)<sup>®</sup> offers a professional credential for business analysis professionals, known as the PMI Professional in Business Analysis (PMI-PBA)(r)<sup>®</sup>. PMI's professional credentialing examination development processes stand apart from other project management certification examination development practices. PMI aligns its process with certification industry best practices, such as those found in the *Standards for Educational and Psychological Testing*.

A key component of this process is that organizations wishing to offer valid and reliable professional credentialing examinations are directed to use a role delineation study (RDS) as the basis for the creation of the examination. This process utilizes knowledge and task driven guidelines to assess the practitioner's competence, and determine the level of salience, criticality, and frequency of each of the knowledge, tasks, and skills required to perform to the industry-wide standard in the role of a business analysis professional.

The role delineation study ensures the validity of an examination. Validation assures the outcome of the exam is in fact measuring and evaluating appropriately the specific knowledge and skills required to function as a business analysis professional. Thus, the role delineation study guarantees that each examination validly measures all elements of the business analysis profession in terms of real settings.

PMI-PBA<sup>SM</sup> credential holders can be confident that their professional credential has been developed according to best practices of test development and based upon input from the practitioners who establish those standards. Please see Appendix A for a detailed description of the process.

The PMI-PBA examination is a vital part of the activities leading to earning a professional credential, thus it is imperative that the PMI-PBA examination accurately reflect the practices of the business analysis professional. All the questions on the examination have been written and extensively reviewed by qualified business analysis professionals and are supported by current business analysis published references. These questions are mapped against the *PMI-PBA Examination Content Outline* to ensure that an appropriate number of questions are in place for a valid examination.

PMI retained Professional Examination Service (ProExam) to develop the global *PMI-PBA Examination Content Outline*. Since 1941, ProExam has provided a full range of assessment and advisory services to organizations across a broad range of professions, in support of professional licensure and certification, training, and continuing professional education. ProExam is dedicated to promoting the public welfare through credentialing as a mission-driven, not-for-profit organization.

It is important to note that those involved in the study described previously were not bound by the *PMBOK<sup>®</sup> Guide*. They were charged with defining the role of individuals performing business analysis activities, especially those associated with projects, using their experience and pertinent resources to help in this task.

Although some of the domains, tasks, knowledge, and skills outlined by the *PMI-PBA Examination Content Outline* are also covered by the *PMBOK<sup>®</sup> Guide*, there are some that are unique to the *PMI-PBA Examination Content Outline*. Candidates studying for the examination will certainly want to include the

current edition of the *PMBOK® Guide* as one of their references, and would be well advised to read other current titles on business analysis.

\*Important Note – please always refer to the PMI website for the most current version of the *PMI-PBA Exam Content Outline*

# **PMI PROFESSIONAL IN BUSINESS ANALYSIS (PMI-PBA)<sup>SM</sup>**

## **EXAMINATION CONTENT OUTLINE**

The following table identifies the proportion of questions from each domain that will appear on the examination. These percentages are used to determine the number of questions related to each domain and task that should appear on the multiple-choice format examination.

<b>Domain</b>	<b>Percentage of Items on Test</b>
<b>Domain 1. Needs Assessment</b>	18%
<b>Domain 2. Planning</b>	22%
<b>Domain 3. Analysis</b>	35%
<b>Domain 4. Traceability and Monitoring</b>	15%
<b>Domain 5. Evaluation</b>	10%

## DOMAINS AND TASKS

### Domain 1: Needs Assessment

The Needs Assessment domain includes activities related to understanding a business problem or opportunity and evaluating various inputs to help develop an effective solution.

<b>Tasks</b>	<b>Needs Assessment (18%)</b>
Task 1	<b>Define or review a business problem or opportunity using problem and opportunity analysis techniques in order to develop a solution scope statement and/or to provide input to create a business case.</b>
Task 2	<b>Collect and analyze information from a variety of sources using valuation tools and techniques to contribute to determining the value proposition of the initiative.</b>
Task 3	<b>Collaborate in the development of project goals and objectives by providing clarification of business needs and solution scope in order to align the product with the organization's goals and objectives.</b>
Task 4	<b>Identify stakeholders by reviewing goals, objectives, and requirements in order that the appropriate parties are represented, informed and involved.</b>
Task 5	<b>Determine stakeholder values regarding the product, using elicitation techniques in order to provide a baseline for prioritizing requirements.</b>



## Domain 2: Planning

The Planning domain focuses on the preparation required to effectively manage the business analysis activities that will occur within the project. This includes establishing tools, policies, and procedures for the requirements management plan, requirements traceability, change management, document control, and acceptance criteria.

<b>Tasks</b>	<b>Planning (22%)</b>
Task 1	<b>Review the business case, and the project goals and objectives, in order to provide context for business analysis activities.</b>
Task 2	<b>Define strategy for requirements traceability using traceability tools and techniques in order to establish the level of traceability necessary to monitor and validate the requirements.</b>
Task 3	<b>Develop requirements management plan by identifying stakeholders, roles and responsibilities, communication protocols, and methods for eliciting, analyzing, documenting, managing, and approving requirements in order to establish a roadmap for delivering the expected solution.</b>
Task 4	<b>Select methods for requirements change control by identifying channels for communicating requests and processes for managing changes in order to establish standard protocols for incorporation into the change management plan.</b>
Task 5	<b>Select methods for document control by using documentation management tools and techniques in order to establish a standard for requirements traceability and versioning.</b>
Task 6	<b>Define business metrics and acceptance criteria by collaborating with stakeholders for use in evaluating when the solution meets the requirements.</b>

### Domain 3: Analysis

The Analysis domain centers on requirements management activities. Tasks include the elicitation, analysis, decomposition, acceptance, approval, specification, and validation of the requirements for a product or project.

Tasks	Analysis (35%)
Task 1	<b>Elicit or identify requirements, using individual and group elicitation techniques in order to discover and capture requirements with supporting details (e.g., origin and rationale).</b>
Task 2	<b>Analyze, decompose, and elaborate requirements using techniques such as dependency analysis, interface analysis, and data and process modeling in order to collaboratively uncover and clarify product options and capabilities.</b>
Task 3	<b>Evaluate product options and capabilities by using decision-making and valuation techniques in order to determine which requirements are accepted, deferred, or rejected.</b>
Task 4	<b>Allocate accepted or deferred requirements by balancing scope schedule, budget, and resource constraints with the value proposition using prioritization, dependency analysis, and decision-making tools and techniques in order to create a requirements baseline.</b>
Task 5	<b>Obtain sign-off on requirements baseline using decision-making techniques in order to facilitate stakeholder consensus and achieve stakeholder approval.</b>
Task 6	<b>Write requirements specifications using process (such as use cases, user stories), data, and interface details in order to communicate requirements that are measurable and actionable (that is, suitable for development).</b>
Task 7	<b>Validate requirements using tools and techniques such as documentation review, prototypes, demos, and other validation methods in order to ensure requirements are complete, accurate and aligned with goals, objectives, and value proposition.</b>
Task 8	<b>Elaborate and specify detailed metrics and acceptance criteria using measurement tools and techniques for use in evaluating whether the solution meets requirements.</b>

## Domain 4: Traceability and Monitoring

The Traceability and Monitoring domain includes the activities related to managing the life cycle of requirements. The tasks within this domain comprise the continuous monitoring and documenting of requirements as well as the communication of the requirements status to stakeholders.

<b>Tasks</b>	<b>Traceability and Monitoring (15%)</b>
Task 1	<b>Track requirements using a traceability artifact or tools, capturing the requirements' status, sources and relationships (including dependencies), in order to provide evidence that the requirements are delivered as stated.</b>
Task 2	<b>Monitor requirements throughout their lifecycles using a traceability artifact or tool in order to ensure the appropriate supporting requirements artifacts (such as models, documentation, and test cases) are produced, reviewed and approved at each point in the lifecycle.</b>
Task 3	<b>Update a requirement's status as it moves through its lifecycle states by communicating with appropriate stakeholders and recording changes in the traceability artifact or tool in order to track requirements towards closure.</b>
Task 4	<b>Communicate requirements status to project manager and other stakeholders using communication methods in order to keep them informed of requirements issues, conflicts, changes, risks, and overall status.</b>
Task 5	<b>Manage changes to requirements by assessing impacts, dependencies, and risks in accordance with the change control plan, and comparing to the requirements baseline in order to maintain the integrity of the requirements and associated artifacts.</b>

## Domain 5: Evaluation

The Evaluation domain includes activities that relate to the assessment of how well the delivered solution fulfills the requirements and meets the business need. Tasks within this domain include testing the solution, determining if there are gaps, and obtaining sign-off.

<b>Tasks</b>	<b>Evaluation (10%)</b>
Task 1	<b>Validate the solution's test results, reports, and other test evidence against the requirements acceptance criteria in order to determine whether the solution satisfies the requirements.</b>
Task 2	<b>Analyze and communicate the solution's identified gaps and deltas using quality assurance tools and methods in order to enable stakeholders to resolve discrepancies between solution scope, requirements, and developed solution.</b>
Task 3	<b>Obtain stakeholder sign-off on the developed solution using decision-making techniques in order to proceed with deployment.</b>
Task 4	<b>Evaluate the deployed solution using valuation techniques in order to determine how well the solution meets the business case and value proposition.</b>

## KNOWLEDGE AND SKILLS

1. Analytic tools and techniques (for example, decomposition, progressive elaboration, dependency analysis, gap analysis, impact analysis, risk analysis, and assessment)
2. Backlog management
3. Business rule analysis tools and techniques (for example, decision table, decision tree, rule catalog)
4. Change control tools and techniques
5. Collaboration tools and techniques
6. Communication skills, techniques, and tools (for example, technical writing, business writing, working with virtual teams, presentation skills, verbal and nonverbal communication)
7. Conflict management and resolution tools and techniques
8. Contingency planning
9. Data analysis tools and techniques (for example, data model, data dictionary, state diagram)
10. Decision making tools and techniques (for example, Delphi technique, multi-voting, consensus building, options analysis)
11. Development methodologies (for example, agile, iterative, incremental, waterfall)
12. Documentation management tools and techniques
13. Elements of a requirements management plan
14. Elicitation tools and techniques (for example, brainstorming, focus groups, interviewing techniques, workshop facilitation, observation, document analysis, research, surveys, and questionnaires)
15. Estimating tools and techniques (for example, estimation poker, quadrant analysis, averaging)
16. Facilitation tools and techniques
17. Interface analysis (for example, prototyping, storyboarding, interoperability)
18. Leadership principles and skills
19. Lessons learned and retrospectives
20. Measurement tools and techniques (for example, service level agreement)
21. Negotiation tools and techniques
22. Organization assessment (for example, organizational readiness)
23. Planning tools and techniques (for example, strategic and tactical)

24. Political and cultural awareness
25. Prioritization tools and techniques (for example, multi-voting, weighted criteria, MoSCoW)
26. Problem solving and opportunity identification tools and techniques (for example, brainstorming, value engineering, scenario analysis, user journey maps)
27. Process analysis tools and techniques (for example, user stories, use cases, process model, data flow diagrams, dependency graphs, events)
28. Project methodologies (such as waterfall, agile, iterative, lean) and how they impact requirements and business analysis practices
29. Quality management
30. Reporting tools and techniques
31. Requirements traceability tools and techniques
32. Requirements types (for example, business, stakeholder, solution, transition, project, and quality)
33. Root cause analysis (for example, Ishikawa/fishbone, 5 Whys)
34. Scheduling tools and techniques
35. Stakeholder analysis (for example, personas, role definition [RACI], job analysis, skills assessment)
36. Systems thinking
37. Validation tools and techniques (for example, acceptance criteria [for example, given-when-then] User Acceptance Testing)
38. Valuation tools and techniques (for example, cost-benefit analysis, force field analysis, Kano model, net promoter score, purpose alignment model, SWOT analysis, value stream map)
39. Verification methods and techniques (for example, inspection, test, walk-through, desk checking, peer review)
40. Version control tools and techniques

## **APPENDIX A: ROLE DELINEATION STUDY (RDS) PROCESS**

### **Defining the Responsibilities**

The first step in developing a certification examination is to define the responsibilities of the recipients of the credential. It must be known what the individuals who perform business analysis activities actually do on the job *before* a content-valid test can be developed. A valid examination draws questions from every important area of the profession and specifies that performance areas (domains) considered more important, critical, and relevant be represented by more questions on the examination. Defining the role of individuals who serve in a business analysis capacity occurs in two major phases: one in which individuals currently in the role define the responsibilities and another in which the identified responsibilities are validated on a global scale.

Beginning in 2012, PMI commissioned a global role delineation Study (RDS) for the PMI-PBA credential. The RDS process was led by a steering committee, representing PMI's Certification Governance structure. A project task force comprised of various roles that perform business analysis activities was responsible for the conduct of work on the project, with oversight from the steering committee. The task force had global representation and diversity in industry, job position, and experience. Others in business analysis roles were also responsible for the independent reviews of the work of the task force and piloting the information before surveying a larger sample of business analysis and project management professionals.

Study participants, working under the direction of the Professional Education Service (ProExam), reached consensus on the performance domains, a broad category of duties and responsibilities that define the role, as well as the tasks required for competent performance and the knowledge/skills needed to perform those tasks.

### **Validating the Responsibilities Identified by the Panelists**

In order to ensure the validity of the study and content outline developed by the study participants, a survey requesting feedback on the panel's work was sent to business analysis practitioners throughout the world. Surveys were distributed globally to thousands of relevant practitioners around the world. PMI received a robust set of responses to the survey, with participants from various countries and representing most major industries. This provided PMI with the statistical significance from which to draw conclusions about the criticality for competent performance and frequency of the tasks. Practitioners also rated the knowledge/skills on how essential they were to the work of business analysis and when they were acquired.

### **Developing a Plan for the Test**

Based on respondent ratings, an examination blueprint, clarifying exactly how many questions from each domain and task should be on the examination, was developed. Those domains and tasks that were rated as most important, critical, and relevant by survey respondents would have the most questions devoted to them on the examination.

Results of the study indicated that the 175 scorable questions on the test should be distributed among the domains as shown in the following table. The remaining 25 questions will be dispersed throughout the domains as pretest questions and will not count in the candidates' scores. The pretest items allow PMI to monitor the question performance better, prior to including the questions in the final databank of test questions.

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