# Construction Management Practice Exam (Sample)

## Study Guide


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# Questions

**1. Which type of estimate is often based on a predetermined cost per unit?**

**A. Conceptual**

**B. Ballpark**

**C. Unit price**

**D. Detailed**

**2. What can a bid breakdown submitted by a bidder be useful for?**

**A. Guiding project timelines**

**B. Guiding contractor progress payments**

**C. Determining subcontractor quality**

**D. Evaluating design options**

**3. Which curve is typically the best basis for a contractor's accounts receivable (A/R)?**

**A. Income**

**B. Production**

**C. Cost**

**D. Cash requirements**

**4. Which of the following is not true with respect to the future of the design/build industry?**

**A. The industry will become more global.**

**B. Demand will increase for more highly trained workers.**

**C. The need for permits and regulations will decrease.**

**D. Hazardous waste disposal and product recycling will become more important.**

**5. Which type of project most frequently utilizes a construction management arrangement?**

**A. Commercial**

**B. Residential**

**C. Industrial**

**D. Heavy engineering**

**6. Which of the following statements about the Empire State Building's construction is correct?**

- **A. The building took significantly longer to build due to poor productivity**
- **B. The building was built within the expected time frame**
- **C. Modern techniques were used to speed up construction**
- **D. The building completed ahead of schedule**

**7. The procurement phase comes before which phase?**

- **A. Design**
- **B. Construction**
- **C. Financing**
- **D. Inspection**

**8. An advantage of the design/build approach is that construction can begin before what is completed?**

- **A. The feasibility study**
- **B. The design is 100% complete**
- **C. The contractor is selected**
- **D. The budget is finalized**

**9. Is hazard elimination the only focus of a comprehensive safety program?**

- **A. True**
- **B. False**
- **C. Only during training**
- **D. Only on job sites**

**10. What is one of the primary functions of a project schedule?**

- **A. To monitor project costs**
- **B. To allocate workforce resources**
- **C. To control time**
- **D. To ensure quality standards**

# Answers

1. C
2. B
3. A
4. C
5. A
6. B
7. A
8. B
9. B
10. C

# Explanations

## 1. Which type of estimate is often based on a predetermined cost per unit?

**A. Conceptual**

**B. Ballpark**

**C. Unit price**

**D. Detailed**

**The correct answer is unit price. This type of estimate utilizes a predetermined cost per unit of measurement to calculate the total estimated cost of a project. It is particularly useful for estimating labor, materials, and equipment based on established rates for individual components of the project. By applying the unit price to determine costs, managers can more accurately assess the overall budget and resource allocation for a construction job. Unit price estimates are advantageous in that they allow for quick calculations and adjustments based on variations in quantities, making them a practical choice for many construction scenarios. This method is also beneficial when dealing with projects that have repetitive tasks, as it leverages historical cost data to produce reliable estimates. In contrast, conceptual estimates are typically broader and less detailed, often used in the early stages of project planning to provide general cost guidelines. Ballpark estimates are rough estimates that give a general sense of the anticipated project costs without relying on specific unit prices. Detailed estimates require extensive analysis and breakdown of all project components, leading to an accurate and structured cost prediction but can be more time-consuming to prepare. Thus, while all these types of estimates serve specific purposes, unit price estimating stands out for its approach based on predetermined costs per unit.**

## 2. What can a bid breakdown submitted by a bidder be useful for?

**A. Guiding project timelines**

**B. Guiding contractor progress payments**

**C. Determining subcontractor quality**

**D. Evaluating design options**

**A bid breakdown submitted by a bidder is particularly useful for guiding contractor progress payments. The bid breakdown provides a detailed itemization of costs associated with various components of the project, including labor, materials, and overhead expenses. By understanding the allocation of costs, project managers and stakeholders can assess completed work against the agreed-upon terms in the bid. Progress payments are often tied to specific milestones or completed phases of work as outlined in the bid breakdown. With this detailed financial structure, it becomes easier to verify that payment requests align with actual work completed. This transparency helps ensure that contractors are compensated accurately and timely, fostering a more effective cash flow management approach throughout the project. In contrast, guiding project timelines, determining subcontractor quality, and evaluating design options are not primary uses of a bid breakdown. While these factors may require consideration during the project, the bid breakdown specifically serves to streamline financial transactions and support contractor payment processes.**

## 3. Which curve is typically the best basis for a contractor's accounts receivable (A/R)?

**A. Income**

**B. Production**

**C. Cost**

**D. Cash requirements**

**The best basis for a contractor's accounts receivable (A/R) is typically the income curve. This curve reflects the revenue that a contractor expects to receive as work progresses on a project. It is closely aligned with the timing of billing for completed work or milestones, which is essential for managing cash flow in a construction project. When contractors invoice based on the income generated from their work, they can ensure that their accounts receivable closely match the actual earnings expected from the project. This approach facilitates a better understanding of when funds will be realized and helps in planning for future cash needs. Since cash flow is a critical aspect of construction management, using the income curve helps to align project performance with financial expectations. On the other hand, while production curves can show work completed, they may not directly correlate with the invoicing process or revenue recognition. Cost curves, although useful for understanding project expenditures, do not provide insight into expected income. Cash requirements are more focused on anticipated cash outflows rather than inflows, which are vital for understanding receivables. Therefore, using the income curve provides the most accurate basis for managing accounts receivable effectively.**

## 4. Which of the following is not true with respect to the future of the design/build industry?

**A. The industry will become more global.**

**B. Demand will increase for more highly trained workers.**

**C. The need for permits and regulations will decrease.**

**D. Hazardous waste disposal and product recycling will become more important.**

**The assertion that the need for permits and regulations will decrease is not true when considering the future of the design/build industry. In fact, as awareness about environmental impact, safety, and compliance continues to grow, it is likely that the regulatory landscape will become even more complex and stringent. Governments and industry standards are increasingly emphasizing the importance of adhering to safety and environmental regulations to protect public welfare and natural resources. As a result, design/build professionals will need to be well-versed in navigating these regulations to ensure compliance while delivering projects. In contrast, the other options reflect trends that are indeed expected in the industry. The design/build industry is likely to become more global due to the interconnectedness of markets and opportunities for international collaboration. Additionally, as projects become more complex and technologically advanced, there will be a greater demand for highly trained workers who possess specialized skills. Finally, the importance of hazardous waste disposal and product recycling is on the rise as sustainability becomes a priority in construction practices, driving regulations and innovative solutions in waste management and material reuse.**

## 5. Which type of project most frequently utilizes a construction management arrangement?

**A. Commercial**

**B. Residential**

**C. Industrial**

**D. Heavy engineering**

**The preference for a construction management arrangement in commercial projects is largely due to the complex and dynamic nature of these ventures. Commercial projects often require a higher level of coordination among various stakeholders, including architects, engineers, contractors, and clients, to effectively manage timelines, budgets, and quality standards. The construction management model is particularly effective here because it offers flexibility in handling changes and unforeseen circumstances, which are common in commercial endeavors. In a commercial setting, the speed-to-market can be crucial, meaning that having a construction manager can streamline the process by ensuring that all aspects of construction are well-integrated and managed efficiently. The construction manager acts as an advisor to the owner and as the primary point of contact, helping to facilitate communication and decision-making throughout the project lifecycle. While residential, industrial, and heavy engineering projects also utilize various management arrangements, they tend to have different complexities and scales that may not require the same level of construction management involvement as commercial projects do. Residential projects, for instance, are often simpler and may be managed by general contractors without the need for an independent construction manager.**

## 6. Which of the following statements about the Empire State Building's construction is correct?

**A. The building took significantly longer to build due to poor productivity**

**B. The building was built within the expected time frame**

**C. Modern techniques were used to speed up construction**

**D. The building completed ahead of schedule**

**The statement that the Empire State Building was built within the expected time frame is correct because its construction was notably efficient and well-managed, leading to its completion in just over a year, specifically from 1930 to 1931. This rapid construction period is a hallmark of the project, driven by the use of effective management practices and skilled labor. The planning and organization were so meticulous that the building achieved its anticipated timeline despite the economic challenges of the era. This efficiency is often highlighted in studies of historical construction projects, showcasing how it was possible to complete such an ambitious structure relatively quickly.**

## 7. The procurement phase comes before which phase?

**A. Design**

**B. Construction**

**C. Financing**

**D. Inspection**

**The procurement phase is a critical step in the project lifecycle that focuses on acquiring the necessary materials, services, and labor needed to execute the construction project. This phase typically follows the initial planning and design stages, where project requirements and specifications are established. Procurement must take place before the construction phase because, without the necessary resources in place, construction cannot commence effectively. Choosing design as the phase that comes after procurement reflects an understanding of the project flow. While design involves developing detailed plans and specifications, procurement can actually occur in a parallel manner once the initial design is sufficiently comprehensive. However, prior to starting construction, all procurement activities need to be finalized to ensure that the project remains on schedule. Therefore, procurement happens ahead of the construction phase, ensuring that all resources are available for the implementation of the design.**

## 8. An advantage of the design/build approach is that construction can begin before what is completed?

**A. The feasibility study**

**B. The design is 100% complete**

**C. The contractor is selected**

**D. The budget is finalized**

**The design/build approach streamlines the construction process by allowing work to begin before the design phase is entirely finalized. This approach integrates both design and construction phases, promoting collaboration between the design team and the construction team. By starting construction while the design is still being developed, projects can benefit from time savings and potentially reduced costs, as adjustments can be made in real-time to address issues that arise during the construction phase. This method stands in contrast to traditional project delivery systems, where construction cannot commence until the design is fully complete. The design/build model enables a more flexible and responsive construction process, fostering innovation and potentially accelerating project timelines. While the feasibility study, contractor selection, and budget finalization are important components of the overall project management process, they do not directly impede the ability to begin construction under the design/build model, making the timing of design completion a key advantage of this approach.**

## 9. Is hazard elimination the only focus of a comprehensive safety program?

**A. True**

**B. False**

**C. Only during training**

**D. Only on job sites**

**A comprehensive safety program encompasses much more than just hazard elimination. While eliminating hazards is a critical component to ensure the safety of workers, a robust safety program also includes various other aspects such as training, safety protocols, regular inspections, employee participation, and health and wellness initiatives. Training plays a vital role in equipping employees with the necessary knowledge and skills to identify hazards and respond appropriately. Additionally, safety protocols provide guidelines and procedures for everyone on the job site, ensuring that safety is prioritized in daily operations. Regular inspections help identify potential risks that may not have been addressed, and fostering a culture of safety encourages employees to actively engage in promoting safe practices. Thus, while hazard elimination is a key focus, a comprehensive safety program integrates multiple elements to create a safer work environment overall. This holistic approach significantly enhances the effectiveness of safety measures, ultimately leading to a reduction in accidents and injuries on the job.**

## 10. What is one of the primary functions of a project schedule?

**A. To monitor project costs**

**B. To allocate workforce resources**

**C. To control time**

**D. To ensure quality standards**

**One of the primary functions of a project schedule is to control time. A project schedule provides a timeline that outlines when tasks are to be started and completed, helping project managers track progress against deadlines. By establishing specific durations for activities and identifying critical paths, the schedule enables effective time management throughout the project lifecycle. This is essential for ensuring that the project remains on track and that any delays can be identified early enough for mitigation strategies to be devised. In the context of construction management, controlling time is vital because many aspects of construction projects are interdependent; delays in one area can lead to cascading delays in others. Thus, a well-maintained schedule allows project managers to make informed decisions regarding time allocation, sequence of work, and overall project timelines, facilitating timely project completion.**