

Scrum Master & Product Owner

Quick Reference Guide

Focus Area

Scrum Framework - Rules and roles of Scrum per the Scrum Guide.

Scrum Theory and Principles - Good understanding of Scrum theory, how it is founded on empirical theory, and the principles and values of Scrum.

Cross-functional, Self-organizing Teams - Scrum Teams are different from traditional development groups. The paradigm and nature of a cross-functional and self-organizing team promote flexibility, creativity, and productivity. They choose how to best do their work and have all competencies needed to accomplish it without depending on others outside of the team.

Maximizing Value - The Product Owner is responsible for maximizing the value of the product and the work of the Scrum Team. Understand different angles of value from a definition of measuring value and also strategies to optimize value.

Product Backlog Management - The Product Backlog is the single source of requirements and changes for the product. To maximize value, best create, clarify and maintain the Product Backlog in order to plan releases, report, and capitalize on unforeseen business opportunities.

Coaching and Facilitation - Overall behavior of Scrum masters are very different from project managers or team leaders in traditional environments. Scrum Masters are servant leaders who coach and facilitate teams and organizations in understanding and applying Scrum. Best techniques help teams and organizations discover what works best for them.

Tech Agilist practice exam on UDEMY

CSM - <https://www.udemy.com/course/certified-scrum-master-csm-practice-exams-v/?referralCode=338E2561C3C12C8FE96F>

PSM I - <https://www.udemy.com/course/scrum-master-certification-practice-exams/?referralCode=358827C432F98F5F42C2>

PSM II - <https://www.udemy.com/course/professional-scrum-master-ii-psm-ii-practice-exams/?referralCode=026579CD2EB531CB43C6>

PSPO I - <https://www.udemy.com/course/product-owner-certification-practice-exams/?referralCode=FE7E6BDBA18CFF6E6A72>

PSPO II - <https://www.udemy.com/course/professional-scrum-product-owner-ii-pspo-ii-practice-exams/?referralCode=538A23D1E564838678AD>

PSD - <https://www.udemy.com/course/scrum-developer-certification-practice-exams/?referralCode=4EF272249331815DDF85>

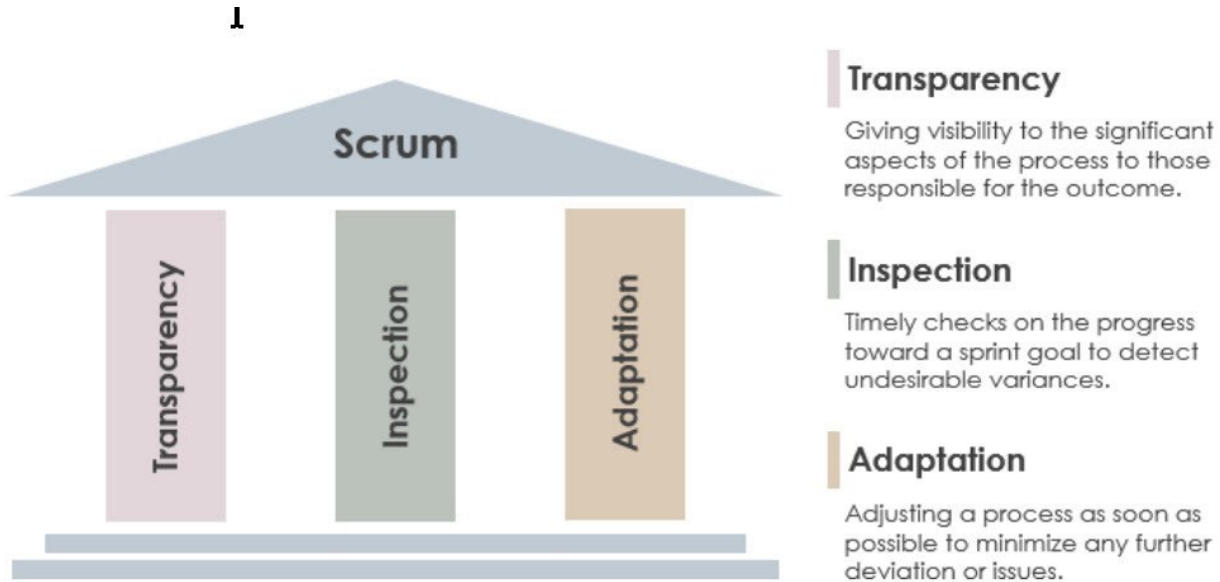
SPS - <https://www.udemy.com/course/scaled-professional-scrum-sps-certification-practice-exams/?referralCode=F41C05C8F07F62E0501C>

PMI-ACP - <https://www.udemy.com/course/pmi-agile-certified-practitioner-pmi-acp-practice-exams-m/?referralCode=583ACDE0C9A5FEC0E38E>

PMP - <https://www.udemy.com/course/pmp-certification-practice-exams-pmi-pmp-pmbok7-pmbok6/?referralCode=A03B351C8C0B7D472040>

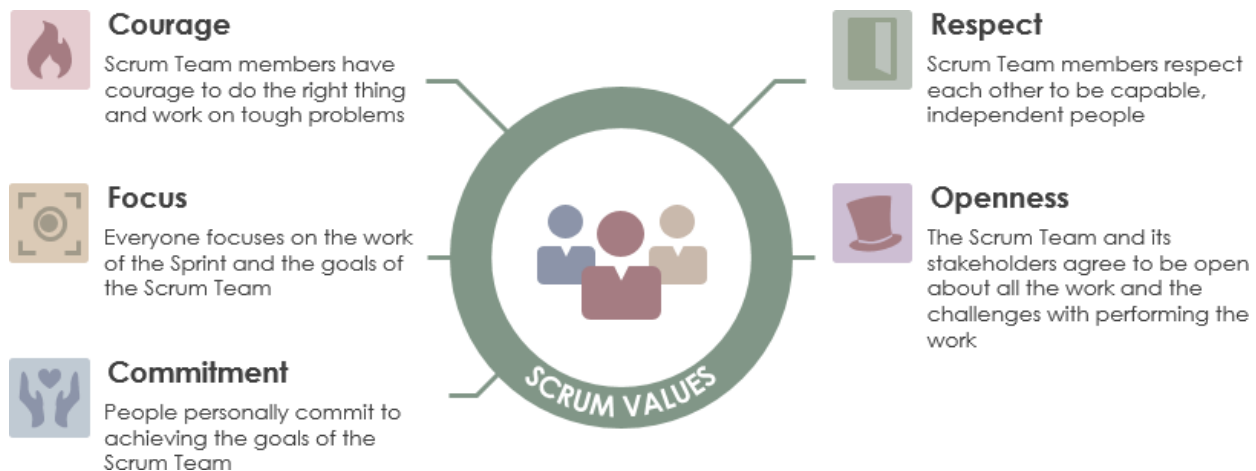
Agile & Scrum Theory & Values

- Both **Scrum & Agile** use an **incremental and iterative** approach to development.
 - **Incremental** - “Let’s build some of it before we build all of it”.
 - **Iterative** - In one iteration (Sprint), we go through all of the development processes to create a usable increment.
- Plan-Driven Development (Waterfall)** is about creating **one huge increment** with **one huge iteration**.
- Scrum is a **lightweight framework** that helps people, teams, and organizations **generate value** through **adaptive solutions** for **complex problems**.
- Scrum is founded on **Empiricism and lean thinking**. Empiricism asserts that **knowledge comes from experience** and making decisions based on what is **observed**. Lean thinking **reduces waste** and **focuses on the essentials**.



The three pillars of scrum

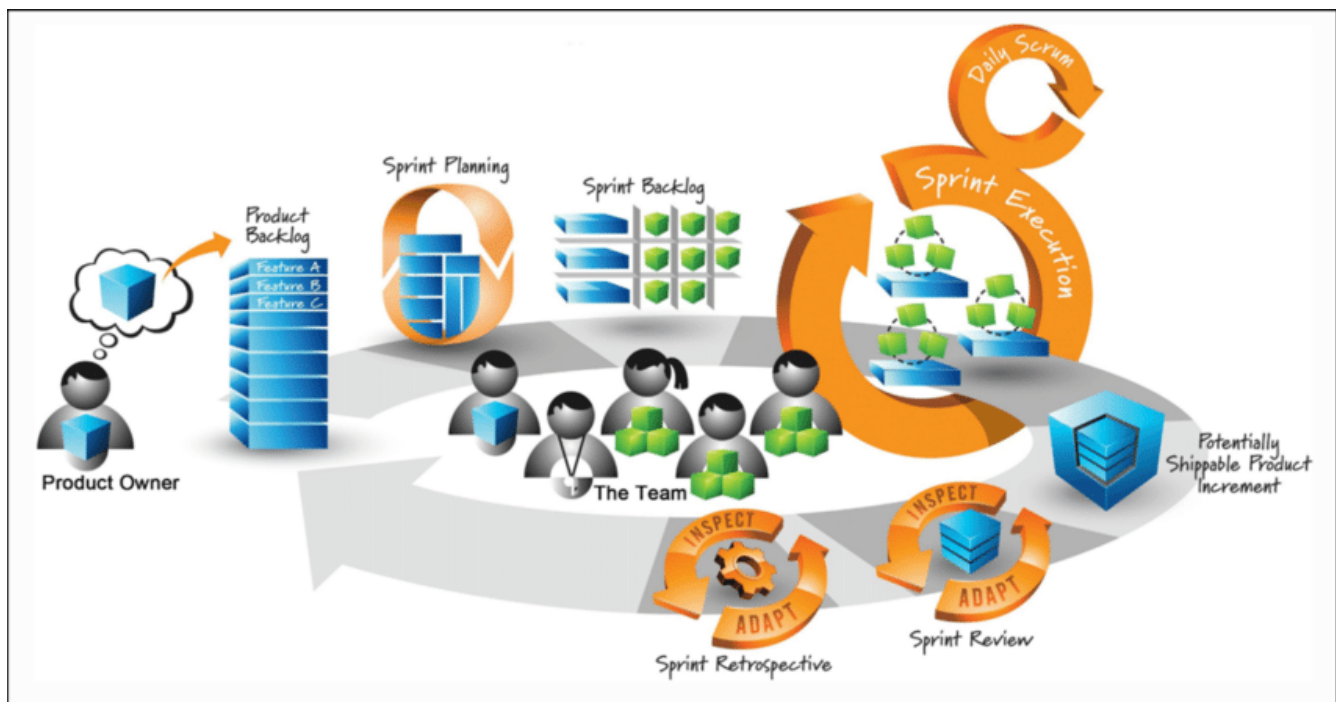
- Three pillars uphold Scrum - **Transparency, Inspection, and Adaptation**.



- Five Scrum Values - **Commitment, Courage, Focus, Openness, and Respect**.

7. Five Scrum Events - **Sprint, Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective.**
8. All Scrum events are **time-boxed** (Once the **time box expires** event **ends** - cannot extend their duration).
9. "**Development**" in the context of Scrum means complex work that can include all the suggested options and even more. It refers to complex work including **software and hardware development, development and releasing of products and enhancements, development and sustaining product operational environments, research and identifying viable markets and technologies, and even more.**
10. Role of Management in Scrum
 - **Support the Product Owner** with insights and information into high-value product and system capabilities.
 - **Support the Scrum Master** to cause organizational change that fosters empiricism, self-organization, bottom-up intelligence, and intelligent release of the software.

Scrum Team



1. Three different sets of Roles - **The Developers, Scrum Master, and Product Owner.** The **Project Manager** role **does not exist** in Scrum.
2. Scrum Master can work part-time as well as full-time. Scrum doesn't prohibit **one person to act as a Scrum Master and a Product Owner** but it doesn't recommend it either. The same applies to Scrum Master and Developer.
3. The Scrum Team is **cross-functional & self-managing** and typically **10 or fewer people**. If it is too large then reorganize it into multiple cohesive Scrum Teams. There are no **sub-teams or hierarchies or any other roles apart from the above three e.g. Tester** within a Scrum Team.

4. **Cross-functional & self-managing** characteristics are designed to optimize **flexibility, creativity, and productivity**.
5. The entire Scrum Team is responsible for all product-related activities from **stakeholder collaboration, verification, maintenance, operation, experimentation, research and development, and anything else** that might be required.
6. The **entire Scrum Team** is accountable for creating a **valuable, useful Increment every Sprint**, creating the Sprint Goal, and creating the Definition of Done or following the **standards of the organization** at a minimum but the Developers are required to **conform to the Definition of Done**.
7. The Scrum Team is responsible for **all product-related activities** from stakeholder collaboration, verification, maintenance, operation, experimentation, research and development, and anything else that might be required. Scrum Team work in Sprints at a **sustainable pace** improves the Scrum Team's focus and consistency.
8. Value is measured by the **frequent delivery of Increments** of the product into the market.

Scrum Master Summary

1. The Scrum Master is accountable for the **Scrum Team's effectiveness**.
2. **The Scrum Master serves the Scrum Team**
 - They coach the team members in **self-management and cross-functionality**.
 - They help the Scrum Team focus on creating **high-value Increments** that meet the Definition of Done,
 - They cause the **removal of impediments** to the Scrum Teams' progress.
 - They ensure that all **Scrum events take place** and are positive, productive, and kept **within the time box**.
3. **The Scrum Master serves the Product Owner**
 - They help the Scrum Team understand the need for **clear and concise Product Backlog** items.
 - They help the Product Owner to **find techniques for effective Product Goal definition and Product Backlog management**.
 - **Helping establish empirical product planning for a complex environment; and,**
 - They **facilitate stakeholder collaboration** when requested or needed.
4. **The Scrum Master serves the Organization**
 - They lead, train, and coach, the organization in its **Scrum adoption**.
 - They plan and advise **Scrum implementations** within the organization.
 - They help employees and stakeholders **understand and enact** an empirical approach to complex work.
 - They **remove barriers between** stakeholders and Scrum Teams.
5. They possess "**Process Authority**" and make sure everyone understands and enacts the Scrum theory, values, rules, and practices.

Product Owner Summary

1. The Product Owner is a **value maximizer, Product Marketplace Expert, and Lead Facilitator of Key Stakeholder Involvement**. The Product Owner is responsible for **optimizing the Return on Investment and Total Cost of Ownership** for the Scrum Team's work.
2. They are accountable for **effective Product Backlog Refinement**, which includes.
 - Creating and explicitly communicating the **Product Goal**.
 - Creating and communicating **Product Backlog Items**.
 - Ordering the **Product Backlog Items**.
 - Make sure the Product Backlog is **transparent, visible, and understood**.
3. The Product Owner is one person, **not a committee**.
4. To succeed, everyone in the organization **must respect his or her decisions**.
5. Only the Product Owner has the authority to **cancel a Sprint**.
The Product Owner is extremely knowledgeable about the **marketplace of the Product**.
6. The Product Owner communicates his **marketplace knowledge** via **Product Backlog Refinement, Sprint Reviews, and Daily ad hoc interactions**.
7. The Product Owner must be available to **answer any questions** the developers have.
8. If two Products are being developed, there can be one person as a **Product Owner for both Products**. As well as, there can be **two Product Owners, one for each Product**.
9. For multiple Stakeholders with varied interests in the product and different viewpoints, the Product Owner should perform an **intelligent balancing of interests** and try to **maximize the value of the Product as a whole**.
10. Product Owner brings his **product vision to life** by
 - Via the Product Backlog and iterating towards that vision every Sprint.
 - Articulating the product vision to the Scrum Team and the Key Stakeholders early and often.
 - Utilizing the underlying empirical product planning features of Scrum.
11. The Product Owner should **communicate and re-iterate** his product vision **early and often** to the Scrum Team and the Key Stakeholders.
12. The Product Owner should be expertly aware of the **marketplace for the product**.
13. Product releases should occur frequently enough to **eliminate the risk** that the product's value will get **out of line with the marketplace**. The factors that should be considered by the Product Owner in the release decision.
 - The risk that the product's value can **get out of line** with the **marketplace**;
 - Can customers **absorb the new release**;
 - The **costs and benefits** of the upgrade;
 - The customers that will be **constrained by the new release**.
14. Product Owners **avoid waste** in the project
 - Don't add much detail to the Product Backlog items until they move to the top of the backlog.
 - There's no need to spend too much time on the items at the bottom of the Product Backlog.
 - They can be broken down into smaller items and have more details when they move to the top of the backlog.

Developers Summary

1. The Developers are the people who create a **usable increment** each Sprint. They create the plan for Sprint, this is the **Sprint Backlog**.
2. The developers choose the number of PBI to **select from the Product Backlog** to the Sprint Backlog.
3. They are responsible for **sizing or estimating the PBIs and the techniques** they would use to turn PBIs into usable increments. When all developers are estimating together, they will be able to unlock any **missing information and dependencies, making efforts more accurate**.
4. Developers are required to **participate in Daily Scrum** and come up with an actionable plan for the next day.
5. Both the **Developers and the Product Owner** do Product Backlog Refinement. The Product Owner may **do this work, or delegate** some of his/her responsibilities to others. However, the **Product Owner remains accountable**.
6. The Developers hold each other accountable as professionals. Scrum Team is allowed to interact with the **Key Stakeholders at any time** where it's valuable to have the Stakeholder input.

Scrum Events Summary

1. All of the events vary in length depending on the **length of the Sprint**, except the Daily Scrum.
2. All events in scrum are opportunities for inspection and adaptation. Optimally, all events are held at the **same time and place to reduce complexity**.
3. A Sprint can be a maximum of 1 month. All Scrum Events, **besides the Sprint**, can end sooner as long as the purpose of the event is achieved. For a **1-month Sprint** below is the duration but for shorter Sprints of less than a month
 - A. Sprint Planning is a maximum of **8 hours**.
 - B. Sprint Review is is a maximum of **4 hours**.
 - C. Sprint Retrospective is a maximum of **3 hours**.
 - D. Daily Scrum is always **15 minutes**.

Sprint Summary

1. Sprints are the heartbeat of Scrum, where ideas are turned into value. The purpose of Sprint is to create usable increments and for the first sprint, **a staffed Scrum Team** along with **just enough Product Backlog Items** with business ideas are required.
2. All the events including sprint are **Feedback Loop**.
3. The Sprints happen **one after another**. Every Sprint must still deliver **at least some valuable business functionality**.
4. The maximum duration of the Sprint is **one month**.
5. Typically, when the project is risky, shorter Sprints are preferred, so we can generate more **learning cycles**.

6. The Sprint can be canceled when the **Sprint Goal becomes obsolete**. **Sprint cancellation** is bad for the team, and it requires regrouping of the team, and a new Sprint Planning event, as a result, resources are lost.
7. When a Sprint is canceled, any **completed and "Done" Product Backlog items** are reviewed. If part of the work is potentially releasable, the Product Owner typically accepts it. All incomplete Product Backlog Items are **re-estimated and put back on the Product Backlog**.
8. The Product owner only has the **authority to cancel Sprint**, he may cancel the sprint under the influence of the stakeholder, developers, or the Scrum master.
 - The Sprint cancellation can be done before the **time box is completed**.
 - It can also be done when the **Sprint goal becomes obsolete**. This might occur if the company changes direction or if the market or technology conditions change
9. During the Sprint **quality goals do not decrease**, and **scope might be re-negotiated** as more is learned.
10. The Scrum Team does not make changes that would **endanger the Sprint Goal**.
11. Three factors are best considered when establishing the Sprint length
 - A. The ability to **go to market** with a product release.
 - B. The **level of uncertainty** over the technology to be used.
 - C. The risk of being **disconnected from the stakeholders**.

Sprint Planning Summary

1. There is **no pre-requisite for a sprint planning** scrum team prefers to have “ready” items at the top of the Product Backlog before Sprint Planning, which is done through Product Backlog refinement.
2. During Sprint Planning the Product Owner brings a **business objective** based on which the Scrum Team collaboratively **crafts the Sprint Goal**.
3. During Sprint Planning, the PO ensures that attendees are prepared to discuss the most important PBIs and **how they map to the Product Goal**.
4. During Sprint Planning we answer three important questions:
 - A. **Why** is this Sprint Valuable?
 - B. **What** can be done this Sprint?
 - C. **How** will the chosen work get done?
5. The **entire Scrum Team** attends and collaborates on **creating the Sprint Goal**.
6. The Developers decide **how many PBIs** to select for the Sprint Backlog.
7. The Developers decide **on the practices they use to turn PBIs into usable increments**.
8. The more the Developers know about their **past performance, upcoming capacity, and the DoD**, the more accurate forecasts they would be able to do.
9. The Sprint Backlog is created during Sprint Planning and it is a combination of 3 things - **Sprint Goal, the selected PBIs, and a Plan to deliver them**.
10. The Scrum Team **may invite other people** to attend Sprint Planning to provide advice. Sprint Planning is a maximum of **8 hours for a 1-month Sprint**.
11. If the work turns out to be different than they expected, **they collaborate with the Product Owner** to negotiate the scope of the Sprint Backlog within the Sprint **without affecting the Sprint Goal**.

Daily Scrum Summary

1. The purpose of the Daily Scrum is to **inspect** progress toward the **Sprint Goal** and **adapt** the Sprint Backlog if needed.
2. Daily Scrum is a **mandatory** event for **all Developers** of the Scrum Team i.e. NOT allowed to **skip the Daily Scrum** for any reason.
3. The Scrum Master ensures that **Daily Scrum takes place**, but the Developers are responsible for conducting the event.
4. During Daily Scrum, the Developers **plan the work for the next day**.
5. The Scrum Master and Product Owner are **allowed** to attend Daily Scrum but they **participate as Developers** if actively working on items in the Sprint Backlog.
6. Daily Scrum is always **15 minutes** (regardless of the length of the Sprint and the number of Developers). **The frequency** of Daily Scrum can't be changed.
7. Daily Scrum is held at the **same time and place** every working day of the Sprint to **reduce complexity and eliminate waste**.
8. Developers choose the **structure of the Daily Scrum event**.
 - A. The focus of the event should be:
 - B. Progress towards the Sprint Goal.
 - C. An actionable plan for the next day.
9. Daily Scrums
 - A. Improve communications,
 - B. Identify impediments,
 - C. Promote quick decision-making, and
 - D. Consequently, eliminate the need for other meetings.
10. The developers are **allowed to adjust their plan** to achieve the Sprint Goal outside Daily Scrum as well. Often, they **meet throughout the day** for more detailed discussions.

Sprint Review Summary

1. The purpose of the Sprint Review event is to **inspect the outcome of the Sprint** and determine **future adaptations**.
2. The Scrum Team presents the results of their work to key **stakeholders and progress toward the Product Goal** is discussed.
3. Attendees of the Sprint Review event are the **Scrum Team and key stakeholders**.
4. Sprint Review is not just a **demo or a presentation** of the increment.
5. During the Sprint Review, the Product Owner **seeks feedback** from key stakeholders.
6. The Product Owner **reviews only "Done" items, NOT done items** return them to the product backlog for future consideration. Writing **Acceptance Criteria** for the PBIs is **NOT mandatory** but the **Definition Of Done is mandatory**.
7. If a customer routinely skips this event, the expectations of the Scrum Team and the customer would become **misaligned** and both parties would not be happy.
8. The Product Backlog may also be **adjusted** to meet new opportunities.

9. The Sprint Review is a maximum of **4 hours for a 1-month** Sprint, it is usually shorter for shorter Sprints.

Sprint Retrospective Summary

1. The main purpose of the Sprint Retrospective is to plan ways to **increase quality and effectiveness**.
2. The Scrum Team inspects how the last Sprint went about **individuals, interactions, processes, tools, and their Definition of Done**.
3. It is a maximum of **3 hours for a 1-month** Sprint. For shorter Sprints, the event is usually shorter.
4. It is an opportunity to **inspect and adapt** the Scrum Team's process to build the increments. The **whole Scrum Team** attends the event.
5. The **most impactful improvements** are addressed as soon as possible. They may even be **added to the Sprint Backlog** for the next Sprint.

Scrum Artifacts & Commitments

1. There are 3 Scrum Artifacts:
 - The **Product Backlog**.
 - The **Sprint Backlog**.
 - The **Increment**.
2. Each **Scrum Artifact contains a commitment** to ensure it provides information that enhances transparency and focus.
 - For the **Product Backlog**, it is the **Product Goal**.
 - For the **Sprint Backlog**, it is the **Sprint Goal**.
 - For the **Increment**, it is the **Definition of Done**.
3. The PO is accountable for the Product Goal.
4. The entire Scrum Team creates and is accountable for the Sprint Goal. This is a commitment by the Developers but still provides **flexibility** in terms of the **exact work needed to achieve it**.
5. The entire Scrum Team **creates and is accountable** for the Definition of Done.

Product Backlog Summary

1. The Product Backlog is an **ordered list of items**. It is the **single source of work** undertaken by the Scrum Team.
2. The Product Backlog is ordered in a way that **maximizes the value** the product delivers.
3. The Product Backlog is **never complete**. It is ever-changing and **dynamic**. As long as a product exists, its Product Backlog also exists. When there are changes in the environment in which the product will be used the Product Backlog **evolves to reflect the change**.
4. There's no "**project plan**" in Scrum. The Product Backlog is a form of planning in Scrum projects, and it's updated continuously (Product Backlog refinement).
5. **One** Product has:

- **One** Product Backlog.
 - **One** Product Owner.
 - **One** Product Goal at any given time.
6. Product Backlog Items on top of the Product Backlog are **clearer**, hence **smaller** than those on the bottom.
 7. Product Backlog can be updated **at any time** when done by the Product Owner or **at the Product Owner's discretion. While ordering items, the Product Owner considers whatever is most appropriate for him/her to achieve the product's goals and** optimize the value.
 8. A Product is a vehicle to **deliver value**. It has a clear boundary, known stakeholders, and well-defined users or customers. A product could be a service, a physical product, or something more abstract.
 9. To minimize the dependencies between the multiple Scrum Teams working on the same product, identify **those dependencies and re-order the Product Backlog** accordingly.

Product Goal

1. The Product Goal describes the **future state of the Product**. The Product Goal is the long-term objective for the Scrum Team.
2. The Product Owner is accountable for creating and **explicitly communicating** the Product Goal. It should be communicated **as early and as often as possible**.
3. We cannot have **more than one Product Goal** at any given time.
4. It is recommended that the Product Goal is **clear and concise**.
5. Each increment (Sprint) moves the **Product toward the Product Goal**.
6. The **Product Goal is measurable**, the Scrum Team knows when the goal has been achieved.
7. The **Product Goal can change**, but this is unlikely to happen during a Sprint.
8. Refinements to the Product Goal happen during the **Sprint Review event**.
9. Generally, the **Product Goal** is one part of a bigger **Product Vision**.
10. Multiple Scrum Teams working on the same Product, **share the same Product Goal, the same Product Backlog, and the same Product Owner**.

Sprint Backlog & Sprint Goal

1. The Sprint Backlog consists of 3 items:
 - The **Sprint Goal** (which is the **why**).
 - The **selected Product Backlog Items** (which is the **what**).
 - The Plan for delivering the **Increment** (which is the **how**).
2. The Sprint Backlog is a plan **by** and **for** the Developers.
3. The Sprint Backlog is **highly-visible**.
4. The Sprint Backlog **changes** during the Sprint.
5. The **Product Owner and the Developers** may change/negotiate the scope of the Sprint but this should not affect the Sprint Goal in any way.
6. We move the incomplete items back to the **Product Backlog** for future consideration.

7. The Sprint Goal helps the team stay **focused** during the Sprint.

Increment Summary

1. An Increment is a stepping stone toward the **Product Goal**. In other words, Increment is **additive to all prior Increments** and thoroughly verified, ensuring that all Increments work together.
2. The Scrum Team creates **one or multiple Increments** each Sprint. All Increments must be verified and usable. An Increment may be delivered to stakeholders before the end of the Sprint.
3. The whole Scrum Team decides **when to release** the Increment.
4. Work cannot be considered part of an Increment unless it **meets the Definition of Done**.

Definition of Done (DoD) Summary

1. The DoD is a formal description of the state of the Increment when it meets the quality measures required for the Product.
2. The Definition of Done **creates transparency** by providing everyone with a shared understanding of what work was completed as part of the Increment.
3. Without a **consistent definition of done**
 - Developers may not know **how many Product Backlog items** they can do in a Sprint.
 - The Product Owner may not know what he/she is **inspecting at the Sprint Review**.
 - The Product Owner may be unable to get **gauge the progress** toward his/her product goals.
 - Developers may not know **what work is entailed in completing** selected Product Backlog items.
4. If DoD is part of **organizational standards**, the Scrum Team must follow it as a minimum.
5. If DoD is not part of organizational standards, the Scrum Team must create one that is **appropriate for the Product**.
6. The DoD may be improved during the project i.e can be updated, and the result would be a higher quality of work.
7. Developers are **required to conform** to the DoD (Definition of Done). If multiple Scrum Teams are working **on the same Product**, they must **mutually define** and comply with the same DoD for the integrated increment.
8. The definition of "Done" is important to the Product Owner because
 - It assures the increment reviewed at the Sprint review is usable so the **Product Owner may choose to release it**.
 - It **creates transparency** regarding progress within the Scrum Team.
9. If a Product Backlog item does not meet the Definition of Done, **it cannot be released or even presented at the Sprint Review**. Instead, it **returns to the Product Backlog** for future consideration.

Additional Concepts

1. **Technical Debt** is important for Product Owners
 - Compromises the **long-term quality** of the Product and **increases the total cost of ownership**.
 - Technical debt is **shortcomings in the code** that makes it less than "good enough", and therefore creates risks in the future. It is a real risk that can genuinely be incurred.
 - It usually **decreases velocity** in the future (because the team has to fix the shortcomings), and as some of the debt might remain in the final product, the maintenance cost will increase as well. The total cost of ownership is a combination of project and maintenance costs. Reflects some extra development work.
 - It **creates uncertainty** because when more code is added, more problems will occur and the development slows down.
2. Technical debt **limits the value a Product Owner** can get from a product as
 - It causes a greater percentage of the **product's budget** to be spent on maintenance of the product.
 - The velocity at which new functionality can be created is **reduced** when you have technical debt.
3. **Architecture and infrastructure** are handled in Scrum by
 - They are **added to the Product Backlog and addressed in early Sprints**, while always requiring at least some business functionality, no matter how small.
 - They are **implemented along with the functional development** of the product.
4. Architecture and infrastructure are highly ordered non-functional requirements or included in the Definition of "Done." So add the **security and performance-related NFRs** to the **Definition of Done** and **verify every Increment** against these criteria. If these requirements are missed during earlier releases then **add these to the Product Backlog** and address them throughout the next Sprints.
5. **Story maps** help visualize and plan upcoming work. **Roadmaps** enable sales, marketing, and other project management domains. Use Product Backlog to Maintain a Roadmap.
6. The Product Owner validates the results of his/her **assumptions** made for the Product by **releasing Increments to the market**, early and often, to learn about the business assumptions built into the product.
7. If the product has come to the **end of its life** communicate the **Scrum Team's availability** to stakeholders.
8. **Project budgeting and financial forecasting** work in Scrum
 - It is ideally revisited **as frequently as each Sprint** to ensure value is being delivered for the investment spent.
 - Several sprints may be funded as a **single release**, with the result of each Sprint being releasable software.

Scrum Framework

Scrum: Scrum Framework

1. **The Scrum Team identifies the most helpful changes to improve its effectiveness in Sprint Retrospective. What is the next step for the Scrum Team on those identified improvements? (choose the best option)**

- A. Make sure the most impactful improvements are addressed as soon as possible and the team may add these to the Sprint Backlog for the next Sprint.**
- B. Assign a responsible team member & track the status of at least one improvement item identified in the Retrospective meeting.
- C. Assign responsible team members for each improvement item identified in the Retrospective meeting.
- D. Make sure the Sprint Backlog for the next Sprint includes all the improvement items identified in the Retrospective meeting.

Explanation: The purpose of the Sprint Retrospective is to plan ways to increase quality and effectiveness. The following activities are performed during the retrospective

- Inspects how the last Sprint went with regards to individuals, interactions, processes, tools, and their Definition of Done.
- Discusses what went well during the Sprint, what problems it encountered, and how those problems were (or were not) solved.
- Identifies the most helpful changes to improve its effectiveness. The most impactful improvements are addressed as soon as possible. They may even be added to the Sprint Backlog for the next Sprint.

So the option of addressing this as soon as possible and maybe adding to Sprint Backlog is correct.

Rest all options are incorrect as all improvement items are not addressed at one go or assigned to responsible team members because the scrum team is self-managed. So nobody assigns tasks to the scrum team.

Scrum: Scrum Framework

2. **What are typical activities for a Product Owner in a Sprint? (choose the best two options)**

- A. Attend every Daily Scrum to answer functional questions on the discussed Sprint Backlog items.
- B. Update the work plan for developers on a daily basis.
- C. Work with developers on Product Backlog refinement.**
- D. Create financial reporting upon the spent hours reported by developers.
- E. Collaborate with stakeholders, user communities, and subject matter experts.**

Explanation: The Product Owner represents the stakeholders to the Scrum Team. This typically requires active interaction in order to be able to represent stakeholders and their needs. Product Backlog refinement is an ongoing process in which the Product Owner and developers collaborate on the details of Product Backlog items.

Product Backlog refinement includes

- Developing and explicitly communicating the Product Goal;
- Creating and clearly communicating Product Backlog items;
- Ordering Product Backlog items; and,
- Ensuring that the Product Backlog is transparent, visible, and understood.

Scrum: Scrum Framework

3. How can the Product Owner benefit from having time-boxed Sprints? (choose the best option)

- By ensuring that the Sprint Backlog committed at Sprint Planning is completed.
- By having shippable increments for every Sprint, he/she can have work released in order to obtain feedback from users and the market in order to feed back into the Product Backlog.**
- By making sure a Sprint does not stop until all testing is done, and the work is verified by the Product Owner.
- By being able to manage the performance of the Developers & assuring that the project will be fully delivered by the expected deadline.
- By having shippable increments every Sprint, the Business Analysts can give sign-off on the Increment at least every Sprint Review

Explanation: The Product Owner manages the Product Backlog against the assumption that value will be generated. This assumption remains invalidated when it is not checked against users and the market.

The Product Owner employs an iterative, incremental approach to optimize predictability and control risk. As a Product Owner, you have to release a Product to customers/users early and often, in order to find out if you have delivered value for them. This can be done at least every Sprint.

Rest all options are incorrect as

When a Sprint's horizon is too long, you increase the risk that what is being developed may no longer be desired. Sprints limit risk to one calendar month or less of work. It is not always true that all the committed work completes by end of the sprint. If this happens then it doesn't mean the sprint is not valuable rather the unfinished work returns to the product backlog and finished work as per DoD accepted by PO. There are no Business Analyst roles or Proxy for PO. Scrum Team is self manages and developers measure their performance periodically. So there is nothing to do for a PO.

Scrum: Scrum Framework

4. The Scrum Master does the following regarding the Daily Scrum (Choose all options that applies)

- Teaches the Developers to keep the Daily Scrum within the 15-minute time-box.**
- Ensures that the Developers have the meeting.**
- Is responsible for conducting the Daily Scrum.
- If others are present at the Daily Scrum, ensure that they do not disrupt the meeting.**

Explanation: The purpose of the Daily Scrum is to inspect progress toward the Sprint Goal and adapt the Sprint Backlog as necessary, adjusting the upcoming planned work.

The Daily Scrum is a 15-minute event for the Developers of the Scrum Team. One of the services to team by the scrum master is Ensuring that all Scrum events take place and are positive, productive, and kept within the time box.

So if it goes beyond 15 mins then the scrum master should coach and teach the Developers to keep the Daily Scrum within the 15-minute time-box. The Daily Scrum is not the only time Developers are allowed to adjust their plan. They often meet throughout the day for more detailed discussions about adapting or re-planning the rest of Sprint's work.

Also Scrum Master ensures that the Daily Scrum event happens every day and are positive, productive, and kept within the time box.

As Daily Scrum is for the Developers of the Scrum Team, If others are present at the Daily Scrum, Scrum Master ensures that they do not disrupt the meeting. If the Product Owner or Scrum Master is actively working on items in the Sprint Backlog, they participate as Developers.

Scrum: Scrum Framework

5. Which of the following is a prerequisite for starting the Sprint Planning meeting? (choose the best option)

- A. Having the requirements specified and completely reflected in the Product Backlog.
- B. Fully refined Product Backlog items in accordance with the Definition of Ready.
- C. There are no such prerequisites.**
- D. Having the Product Backlog items cleared and assigned to developers.
- E. Having the items at the top of the Product Backlog small enough to fit in one Sprint.

Explanation: We prefer to have “ready” items at the top of the Product Backlog before Sprint Planning, which is done through Product Backlog refinement. However, nothing stops our flow of Sprints, and for example, we do not delay the Sprint because the items are not ready. In such cases, the “unready” items would be selected for the Sprint, and refined during the Sprint. “Ready” items are those that are clear, and small enough to fit into one Sprint.

Scrum events should be held at the same time each Sprint. This helps with consistency, making improvements to the process, and reducing waste. In an event that a Scrum event cannot begin at the Scrum Team's designated time, they will need to inspect and adapt the event itself in order to maximize its effectiveness of the event. Delaying events is a short-term solution and results in reducing the team's opportunities to improve.

Sometimes the options may contain statements like “A clear but negotiable business objective for the Sprint” or “Enough Product Backlog items in ready condition to be worked during the sprint” or “Formal budget & schedule approval to conduct another Sprint”, these are incorrect options remember there is no such prerequisite for starting a sprint planning meeting.

Scrum Theory and Principles

Scrum: Scrum Theory and Principles

1. You have just been hired by a company new to scrum. Your management has assigned you to be the stakeholder of six scrum teams. These teams will build one product. Select the conditions you should strive for in this scenario. (choose the best two options)

- A. There should be only one product owner.**
- B. Each scrum team should have a separate product backlog.
- C. The product has one product backlog.**
- D. There should be six product owners, one for each scrum team.
- E. There should be six product owners, reporting to the chief product owner.

Explanation: Multiple Scrum Teams often work together on the same product. One Product Backlog is used to describe the upcoming work on the product. At the end of every sprint, the scrum team integrates so the product owner can approve the product. One product backlog should have only one product owner.

Scrum: Scrum Theory and Principles

2. Scrum Artifacts are designed to maximize the transparency of key information. Select the Commitments that go with each Scrum Artifact.(choose the best three options)

- A. Product Goal.**
- B. Product Backlog
- C. Sprint Goal.**
- D. Sprint Backlog
- E. Definition of Done**
- F. Definition of Ready
- G. Increment

Explanation: Product Backlog, Sprint Backlog & Increment are the Scrum Artifacts. Each artifact contains a commitment to ensure it provides information that enhances transparency and focus against which progress can be measured:

- For the Product Backlog, it is the Product Goal.
- For the Sprint Backlog, it is the Sprint Goal.
- For the Increment, it is the Definition of Done.

These commitments exist to reinforce empiricism and the Scrum values for the Scrum Team and their stakeholders.

Scrum: Scrum Theory and Principles

3. True or False, Is it allowed to skip the Daily Scrum if there is nothing interesting to talk about?

- A. True
- B. False**

Explanation: Each event in Scrum is a formal opportunity to inspect and adapt something. These events are specifically designed to enable critical transparency and inspection. Failure to include any of these events results in reduced transparency and is a lost opportunity to inspect and adapt.

Scrum: Scrum Theory and Principles

4. The definition of “Done” is used to (choose the best three options)

- A. Increase transparency.
- B. **Create a shared understanding of what work is complete as part of the Increment.**
- C. Describe the work that must be done before the Sprint can end.
- D. Describe the purpose, objective, and time box of each Scrum event.
- E. The Definition of Done describes the future state of the product.
- F. **Guide the Scrum Team on how many Product Backlog items to select for the Sprint.**

Explanation: The Definition of Done creates transparency by providing everyone a shared understanding of what work was completed as part of the Increment. If a Product Backlog item does not meet the Definition of Done, it cannot be released or even presented at the Sprint Review. Instead, it returns to the Product Backlog for future consideration.

During sprint planning through discussion with the Product Owner, the Developers select items from the Product Backlog to include in the current Sprint. The Scrum Team may refine these items during this process, which increases understanding and confidence. Selecting how much can be completed within a Sprint may be challenging. However, the more the Developers know about their past performance, upcoming capacity, and Definition of Done, the more confident they will be in their Sprint forecasts.

So the options Increase transparency, Create a shared understanding of what work is complete as part of the Increment & Guide the Scrum Team on how many Product Backlog items to select for the Sprint are correct.

The rest options are incorrect because

The Product Goal describes the future state of the product which can serve as a target for the Scrum Team to plan against.

The sprint ends when the time box expires, it doesn't depend on the work that must be done.

The Scrum Framework defines each Scrum event's purpose, objective, and time box.

Scrum: Scrum Theory and Principles

5. Which Scrum Values are exhibited by not building Product Backlog items that have low business value? (choose the best three options)

- A. Economic Value.
- B. **Respect.**
- C. **Focus.**
- D. Earned Value.
- E. **Courage.**
- F. Market Value.

Explanation: Scrum values are commitment, courage, focus, openness, and respect. So not building a Product Backlog item will impact all these values. Economic value, Market value & Earned value are not scrum values.

Cross-functional and Self-organizing Teams

Scrum: Cross-functional and Self-organizing Teams

1. In Scrum should Developer volunteer to own Sprint Backlog items once they are available during sprint execution? (choose the best option)

- A. **No, Sprint Backlog items are owned by all Developers.**
- B. Yes, as needed, while taking into account the short-term reduction in productivity due to volunteering.
- C. Yes, during the Sprint planning or daily scrum meeting team member should volunteer to own Sprint Backlog items.
- D. Yes, whenever a team member can accommodate more work as per the availability during sprint execution.
- E. No, even though the sprint backlog is owned by developers product owner should be consulted before pulling any item from it.

Explanation: The Sprint Backlog is composed of the Sprint Goal (why), the set of Product Backlog items selected for the Sprint (what), as well as an actionable plan for delivering the Increment (how). The Sprint Backlog is a plan by and for the Developers. Only Developers can change their Sprint Backlog during a Sprint.

The Sprint Backlog is a highly visible, real-time picture of the work that Developers plan to accomplish during the Sprint, and it belongs solely to Developers, not to an individual team member. Consequently, the Sprint Backlog is updated throughout the Sprint as more is learned. It should have enough detail so that they can inspect their progress in the Daily Scrum.

Scrum: Cross-functional and Self-organizing Teams

2. What are the responsibilities of the Developers in Scrum Framework? (choose the best two options)

- A. **Holding each other accountable as professionals.**
- B. Reorder the Product Backlog.
- C. Increase velocity.
- D. Report daily progress to stakeholders.
- E. **Adapting their plan each day toward the Sprint Goal.**

Explanation: Developers are always accountable for:

- Creating a plan for the Sprint, the Sprint Backlog;
- Instilling quality by adhering to a Definition of Done;
- Adapting their plan each day toward the Sprint Goal; and,
- Holding each other accountable as professionals.

Scrum: Cross-functional and Self-organizing Teams

3. During Sprint planning the Developers realize that the workload has grown beyond their capacity. Which action makes the most sense for the Team? (choose the best two options)

- A. As Scrum Team is self-managed so they should work overtime to complete the items selected for the sprint.
- B. **Collaborate with the Product Owner to negotiate the scope and potentially remove or change items planned for the sprint without impacting Sprint Goal.**

- C. Cancel the Sprint and start a new sprint immediately with less number of Product Backlog items in agreement with the Product Owner.
- D. Start the Sprint and request senior management for additional team members to finish the items selected for the sprint.
- E. The Developers ensure that the Product Owner is aware, starts the Sprint, and monitors progress.**

Explanation: As the Scrum Team is still in sprint planning, it keeps the Sprint Goal in mind. In order to satisfy the Sprint Goal, it implements functionality and technology. Through discussion with the Product Owner, the Developers select items from the Product Backlog to include in the current Sprint. The Scrum Team may refine these items during this process, which increases understanding and confidence.

Selecting how much can be completed within a Sprint may be challenging. However, the more the Developers know about their past performance, their upcoming capacity, and their Definition of Done, the more confident they will be in their Sprint forecasts.

If the work turns out to be different from what the Developers expected, they collaborate with the Product Owner to negotiate the scope of Product Backlog items within the Sprint, after discussion remove or change the selected backlog items and start the sprint by monitoring progress.

Scrum: Cross-functional and Self-organizing Teams

4. Who is responsible for estimating & registering the work estimates during a Sprint? (choose the best option)

- A. The Product Owner with input from the Developers.
- B. The Developers as per the direction of the Product Owner and Scrum Master.
- C. The Developers after clarifying requirements with the Product Owner.**
- D. The Scrum Master.
- E. The most senior people in the Scrum Team, including architects and subject matter experts.

Explanation: The Developers are responsible for all estimates in the Product Backlog. The Product Owner may influence Developers by helping them understand and select trade-offs, but the people who will perform the work make the final estimate.

Scrum: Cross-functional and Self-organizing Teams

5. The Scrum Team is self-managing & cross-functional. So they should (choose the best two options)

- A. Have the required skills to convert the selected Product Backlog items into a potentially shippable increment or increments at the end of the sprint.**
- B. Complete the work items as estimated within the time limit and budget.
- C. Have the required skills as a team to start at least initial development even if they don't have the required specialized skill for the work item.
- D. Developers on the Scrum Team work closely with QA/testers who are not on the team.
- E. Have required freedom to internally decide who does what, when, and how.**

Explanation: The Scrum Team consists of professionals who do the work of delivering a potentially releasable Increment or increments of "Done" product at the end of each Sprint. They are self-managing, meaning they internally decide who does what, when, and how. No one (not even the Scrum

Master) tells the Scrum Team how to turn Product Backlog into Increments of potentially releasable functionality; Scrum Teams are cross-functional, meaning the members have all the skills necessary to create value for each Sprint.

Coaching and Facilitation

Scrum: Coaching and Facilitation

1. The Product Owner and the Developers have disagreements on the work selected for a sprint during Sprint Planning. The Product Owner believes that the developers have pessimistically estimated the items along with their capacity and therefore have selected a few items for Sprint.

What is the best action for the Scrum Master? (choose the best option)

- A. Ask the Developers to revise their estimates, because the Product Owner represents the customer.
- B. Ask the two parties to calm down, discuss the matter, and come to an agreement, probably somewhere in the middle.
- C. Tell the Product Owner to revise the estimates and calculate the velocity, and let the developers know how many items they should select.
- D. Explain to the Product Owner that this decision belongs to the Developers and that it should be accepted.**

Explanation: Estimating the Product Backlog items and the capacity is the responsibility of developers, and no one should force them to change it, because in this case, their self-management will be weakened, which in turn, blocks Agility. The Product Owner may influence developers by helping them understand and select trade-offs.

Sprint Planning answers the following:

- Why is this Sprint valuable?
- What can be Done in this Sprint?
- How will the chosen work get done?

During the 2nd part of the sprint, the planning team selects what can be done. The number of items selected from the Product Backlog for Sprint is solely up to the Developers. Through discussion with the Product Owner, the Developers select items from the Product Backlog to include in the current Sprint. The Scrum Team may refine these items during this process, which increases understanding and confidence. Selecting how much can be completed within a Sprint may be challenging. However, the more the Developers know about their past performance, their upcoming capacity, and their Definition of Done, the more confident they will be in their Sprint forecasts.

Scrum: Coaching and Facilitation

2. During a Sprint Retrospective, the Developers propose moving the Daily Scrum to weekly. As a Scrum Master which are the most appropriate responses for the Developers? (Choose the best two options)

- A. Coach the team on why the Daily Scrum is important as an opportunity to update the plan & how to conduct effective Daily Scrums.**
- B. Learn why the Developers want this and work with them to improve the outcome of the daily Scrum.**
- C. Invite other key stakeholders and project sponsors so that daily scrum will be more productive for the developers.
- D. As the developers are self-managing and cross-functional scrum masters should agree with their proposal.
- E. Inform senior management that the Developers are not cooperating.

Explanation: The Scrum Master serves the Scrum Team in several ways, including:

- Coaching the team members in self-management and cross-functionality;
- Helping the Scrum Team focus on creating high-value Increments that meet the Definition of Done;
- Causing the removal of impediments to the Scrum Team's progress; and,
- Ensuring that all Scrum events take place and are positive, productive, and kept within the time box.

So learn why developers want to move daily scrum & coach them on the importance of it in the scrum.

Scrum: Coaching and Facilitation

3. Developers are not communicating effectively with the Product Owner. What is the least productive way for a Scrum Master to help the Scrum Team? (Choose the best option)

- A. Teach the Team to talk in terms of business needs and objectives so that the Product Owner can understand.
- B. Teach the Product Owner about the technologies employed during the Sprints so that he/she can be effectively engaged.
- C. Act as a go-between for the Developers and the Product Owner.**
- D. Monitor communications between the Developers and the Product Owner.

Explanation: Scrum Master's responsibility includes monitoring and coaching the Developers in self-organization and cross-functionality but should not act as a go-between for them.

Scrum: Coaching and Facilitation

4. An Organization adopting the Scrum framework for the first time. The Developers have decided that a retrospective is unnecessary and a waste of time. What should be the Scrum Master's response to this situation? (choose the best option)

- A. Comply with the decision as the scrum team is a self-managing Team.
- B. Begin facilitating productive, useful retrospectives so that the developers can realize the value.**
- C. Consult with the Product Owner to see how he/she feels about the situation.
- D. Call a meeting between the Scrum Team and senior management so that a decision can be made by senior management.

Explanation: One of the responsibilities of a Scrum Master is to facilitate Scrum events as requested or needed and coach the Scrum Team in organizational environments in which Scrum is not yet fully adopted and understood. So in this situation begin facilitating productive, useful retrospectives is critical to the success of scrum.

Scrum: Coaching and Facilitation

5. Developers cannot forecast how much work they can do in the upcoming Sprint, because of uncertainties in a few of the Product Backlog items that the Product Owner is not able to overcome. What actions should the Scrum Master recommend? (choose the best two options)

- A. Cancel the Sprint and start the next one when the items are clear as Sprint Goal is not clear.
- B. Invite everyone to discuss this problem in the next Sprint Retrospective and try to find a solution.**
- C. Ask the developers to come up with their best guess and do not worry about the capacity.**

- D. Extend the duration of Sprint Planning and ask them to discuss the items more and get to an agreement.
- E. Cancel the Sprint Planning meeting, give them some time to prepare, and then hold another Sprint Planning.

Explanation: It's fine! You just pick a number of items. If it was not enough, you can pick more later. If it was too many, you will just deliver as many as you can without impacting Sprint's goal. Nothing bad happens if you don't deliver all items in the Sprint Backlog. The goal is to generate value, not to develop all items in the backlog. Sprint Backlog is updated throughout the Sprint as more is learned. So ask the developers to come up with their best guess and not worry about the capacity.

To remediate this issue invites everyone to discuss this problem in the next Sprint Retrospective and try to find a solution and ask the developers to come up with their best guess and not worry about the capacity.

Rest all options are not correct as this is not a reason for canceling the sprint or canceling the sprint planning meeting. Scrum's core concept is time boxing which means each event has a specified time limit and it should not be extended beyond its limit.

Maximizing Value

Scrum: Maximizing Value

1. The Product Owner should communicate and re-iterate his Product Goal to the Scrum Team and the Key Stakeholders. What should be the ideal frequency for this communication? (choose the best option)

- A. During every Daily Scrum meeting.
- B. During the first Sprint Planning meeting.
- C. On Every Sprint Retrospective meeting.
- D. As Early and as often as possible.**

Explanation: The Product Goal describes the future state of the product that can serve as a target for the Scrum Team to plan against. The Product Goal is the long-term objective for the Scrum Team. They must fulfill (or abandon) one objective before taking on the next.

The Product Owner should communicate and re-iterate his Product Goal to the Scrum Team and the Key Stakeholders early and often, reminding all involved of how that Goal aims to maximize the value of the product and of the work the Scrum Team performs. So the option As Early and as often as possible is correct.

Rest all options are incorrect as the Daily Scrum meeting is for developers to inspect progress toward the Sprint Goal and adapt the Sprint Backlog as necessary, adjusting the upcoming planned work. The Sprint Planning meeting is to plan for the upcoming sprint & Sprint Retrospective meeting is to plan ways to increase quality and effectiveness.

Scrum: Maximizing Value

2. The Product Owner should communicate all of the marketplace knowledge & ever-changing landscape, and environment to the Scrum Team. What is the best way for a Product Owner to communicate this to the Scrum Team (choose the best three options)

- A. During Product Backlog Refinement.**
- B. During Sprint Retrospectives.
- C. During Daily Scrums.
- D. During Sprint Review.**
- E. Daily ad hoc interactions.**

Explanation: The Product Owner communicates all of this marketplace knowledge to the Scrum Team through daily ad-hoc interactions as well as Product Backlog Refinement and in Sprint Reviews.

During Product Backlog, Refinement Product owner creates and clearly communicates Product Backlog items along with the Product Goal. During Sprint review the Product Backlog may also be adjusted to meet new opportunities.

Sprint Retrospective & Daily Scrum are not the right forum to discuss this as Daily Scrum is for Developers & Sprint Retrospective is for inspecting the scrum team and creating a plan for improvements to be enacted during the next Sprint.

Scrum: Maximizing Value

3. Scrum users must frequently inspect artifacts and progress toward the product's vision and goals. In what ways does a Product Owner take the lead on detecting desirable/undesirable variances? (choose the best two answers)

- A. **At the Sprint Review, the Product Owner shares the Product Backlog as it stands. He or she projects likely target and delivery dates based on progress to date which results in a revised Product Backlog.**
- B. During the Daily Scrum, the Product Owner inspects the Sprint burn-down chart in order to create a report on the team's performance.
- C. At the conclusion of Sprint Planning, the Product Owner inspects the Sprint Backlog before allowing the development process to begin.
- D. **The Product Owner invites stakeholders to the Sprint Review to learn about the current state of the market and how it influences what could be done next to optimize value.**

Explanation: The Sprint Review includes the Scrum Team and key stakeholders invited by the Product Owner. During the Sprint Review the Product Owner: Explains what Product Backlog items have been 'Done' and what has not been 'Done'; Discusses the Product Backlog as it stands and any projections to date.

Scrum: Maximizing Value

4 A Sprint can be canceled before the Sprint time-box is over when the Sprint Goal becomes obsolete. What activities happen after a Sprint is canceled? (choose all options that apply)

- A. **If part of the work is potentially releasable or shippable to the customer then the Product Owner accepts it**
- B. **All completed and "Done" Product Backlog items are reviewed.**
- C. **All incomplete Product Backlog Items are re-estimated by Developers and returned to the Product Backlog**
- D. Several top Product Backlog Items are taken from the Product Backlog and placed in the Sprint Backlog for the next sprint.
- E. At the Sprint Retrospective, the team determines who is responsible for this cancellation of Sprint and takes appropriate action.
- F. All work is discarded and a new Sprint begins immediately

Explanation: When a Sprint is canceled, any completed and "Done" Product Backlog items are reviewed. The Product Owner typically accepts if part of the work is potentially releasable. All incomplete Product Backlog Items are re-estimated and put back on the Product Backlog.

The rest of the options are not correct as Sprint Planning takes care of selecting high-priority product backlog items for the next sprint. The purpose of the Sprint Retrospective is not to find and hold the person responsible for sprint cancellation rather it is used to plan ways to increase quality and effectiveness.

Scrum: Maximizing Value

5. When should the Scrum Team allow to interact with the Key Stakeholders? (choose the best option)

- A. During Daily Scrum.
- B. **Any time when key stakeholders' input is valuable.**
- C. During Sprint Review.
- D. During Sprint Retrospective.

Explanation: The Scrum Team is responsible for all product-related activities from stakeholder collaboration, verification, maintenance, operation, experimentation, research and development, and anything else that might be required but the Stakeholders can be involved with the Scrum Team any time where it's valuable to have the Stakeholder input.

Product Backlog Management

Scrum: Product Backlog Management

1. What are the important features/attributes of a Product Backlog? (choose all options that apply)

- A. It is never complete & evolves as the product and the environment change.**
- B. It is dynamic, it constantly changes to identify what the product needs to be appropriate, competitive, and useful.**
- C. As long as a product exists, its Product Backlog also exists.**
- D. After the final version of a product is implemented Product Backlog is deemed as complete.
- E. A Product Backlog could be marked as complete when it contains no other items to include in the next Sprint.
- F. It is a highly visible, real-time picture of the work that the Developers plan to accomplish.

Explanation: The Product Backlog is an emergent, ordered list of what is needed to improve the product. It is the single source of work undertaken by the Scrum Team. A Product Backlog is never complete. The earliest development of it only lays out the initially known and best-understood requirements. The Product Backlog evolves as the product and the environment in which it will be used evolves. The Product Backlog is dynamic; it constantly changes to identify what the product needs to be appropriate, competitive, and useful. As long as a product exists, its Product Backlog also exists.

Scrum: Product Backlog Management

5. The Product Owner wants to apply a few security and performance-related non-functional requirements to the Product. What is the recommended way to add these NFRs so that they can be delivered and implemented on time? (choose the best option)

- A. Find a way to convert security and performance-related NFRs into Product features and add to the sprint backlog.
- B. Add the security and performance-related NFRs to the Definition of Done and verify every Increment against these criteria.**
- C. Create a new user story for every requirement in the Product Backlog & pass this to the security and performance team.
- D. Security and performance-related NFRs are not in-scope of Scrum. It should be dealt with outside of Scrum at the system/application level.
- E. Make sure the release department understands these requirements, but it is not the Developers' responsibility.

Explanation: Non-functional requirements describe the qualities of the Product being developed. For example, the Product should be secure and extensible. The only way to meet such requirements is to have them as a part of the Definition of Done and check every Increment against these criteria.

If the Product owner realizes after a few sprints on NFRs and he/she is not sure if the previous sprints increments are in accordance with these NFRs then this can be added to the product backlog so that it can be prioritized for past sprints.

Scrum: Product Backlog Management

3. True or False, All work to be done by developers must ultimately originate from the Product Backlog.

- A. True
- B. False

Explanation: The Product Backlog is an emergent, ordered list of what is needed to improve the product. It is the single source of work undertaken by the Scrum Team.

Scrum: Product Backlog Management

3. How would the Product Backlog be impacted by the changes in the environment in which the product will be used? (choose the best option)

- A. **It evolves to reflect the changes in the environment & adjusted to meet new opportunities.**
- B. The Product Backlog should be kept high-level enough to tolerate such changes so that there will be no or less impact.
- C. The old baselined Product Backlog would be saved, and a new one would be created for the rest of the project
- D. There's no effect on the Product Backlog as changes in the environment are immediate in nature and the sprint backlog should evolve to reflect this.

Explanation: A Product Backlog is never complete. The earliest development of it lays out the initially known and best-understood requirements. The Product Backlog evolves as the product and the environment in which it will be used evolves. During the sprint review event, the Scrum Team and stakeholders review what was accomplished in the Sprint and what has changed in their environment. Based on this information, attendees collaborate on what to do next. The Product Backlog may also be adjusted to meet new opportunities.

Scrum: Product Backlog Management

4. The Product Backlog is an emergent, ordered list of what is needed to improve the product.

When should the team conduct Product Backlog refinement? (choose the best two options)

- A. **Anytime during the Sprint, it's an ongoing process the Product Owner and the Developers do for future Sprints.**
- B. At the end of the current sprint & the start of the next sprint. The Product Owner & Scrum Master collaborate during this period.
- C. The Product Owner & Scrum Master must do this as essential work in Sprint 0.
- D. **The Product Owner and the Developers conduct it during the Sprint if they were not able to do it in the preceding Sprints.**
- E. Stakeholders & Business analysts should perform this work for the Scrum Team so that it will be ready for the developers before the Sprint starts.

Explanation: Product Backlog refinement is the act of adding detail, estimates, and orders to items in the Product Backlog. This is an ongoing process in which the Product Owner and the Developers collaborate on the details of Product Backlog items. During Product Backlog refinement, items are reviewed and revised. The Scrum Team decides how and when refinement is done. So it can be during a sprint or in between sprints.

Scrum: Product Backlog Management

5. Select the activities that are considered Product Backlog Management. (choose the best three options)

- A. During the Sprint when the Developers break down Product Backlog Items into tasks.

- B. During the Sprint when the Developers and the Product Owner break down Product Backlog Items into smaller Product Backlog Items.**
- C. Updating Product Backlog Items in the Product Backlog by writing clearer and more detailed descriptions.**
- D. During the Sprint Retrospective event when we discuss if it is time to refine the Product Goal.
- E. During the Sprint, the Product Owner orders the Product Backlog Items in the Product Backlog in a way that maximizes value.**

Explanation: The Product Owner is also accountable for effective Product Backlog management, which includes:

1. Developing and explicitly communicating the Product Goal;
2. Creating and clearly communicating Product Backlog items;
3. Ordering Product Backlog items; and,
4. Ensuring that the Product Backlog is transparent, visible, and understood.