Exam Code: PSK-I

Exam Name: Professional Scrum with Kanban

Exam A

QUESTION 1
For teams practicing Professional Scrum with Kanban, what are the most appropriate metrics to inspect?
(choose the best answer)

A. Control Chart, CFD and Aging Chart.
B. Story points and historical velocity.
C. User stories t-shirt size.
D. All of the answers.
E. None of these are Kanban for Scrum Teams metrics.

Correct Answer: A
Section:
Explanation:
For teams practicing Professional Scrum with Kanban, the most appropriate metrics to inspect are:
Control Chart: This chart helps visualize process stability and identify any significant deviations from the expected behavior. By tracking key metrics like lead time and cycle time, teams can identify trends and potential issues.
Cumulative Flow Diagram (CFD): The CFD provides a visual representation of the flow of work through the system. It helps teams understand bottlenecks, identify areas for improvement, and assess the overall health of their workflow.
Aging Chart: This chart shows the age of work items as they progress through the workflow. It helps teams identify items that are taking too long to complete and prioritize them accordingly.
These metrics are particularly relevant for Kanban teams because they focus on the flow of work and the identification of bottlenecks. By tracking these metrics, teams can make data-driven decisions to optimize their workflow and improve delivery performance.
Options B, C, and D are not the most appropriate metrics for Kanban teams. Story points and historical velocity are more commonly used in Scrum, while t-shirt size is a relative estimation technique that may not be suitable for all Kanban teams.

QUESTION 2
Which of these statements are true about Kanban and the Scrum theory of empiricism?
(choose the best two answers)

A. The Kanban board provides Scrum Teams with transparency that helps them inspect and adapt their process.
B. Kanban metrics are used in the Sprint Review to allow the Product Owner to inspect the Throughput and adapt the Scrum Team's Cycle Time.
C. Kanban helps Scrum Teams deal with simple and complicated work where empiricism is not necessary.
D. Kanban helps Scrum Teams achieve faster, healthier flow. That brings more rapid transparency about the product, enabling a more effective inspection and adaptation loop.

Correct Answer: A, D
Section:
Explanation:
1. The Kanban Board Provides Transparency (Option A):
A Kanban board visualizes the flow of work, making it easy for the Scrum Team to see the status of work items, identify bottlenecks, and inspect and adapt their processes. This visual transparency is a fundamental aspect of both Scrum and Kanban and supports the empirical process control central to Scrum(
2. Kanban Helps Achieve Faster, Healthier Flow (Option D):
By focusing on optimizing flow (e.g., reducing Cycle Time and managing Work in Progress), Kanban helps Scrum Teams achieve a faster, more predictable flow of work. This improvement in flow brings more rapid transparency, allowing for more effective inspection and adaptation during Scrum events such as the Daily Scrum, Sprint Review, and Sprint Retrospective(
Option B (Kanban metrics are used in the Sprint Review to allow the Product Owner to inspect Throughput and adapt the Scrum Team's Cycle Time) is not necessarily accurate, as the Sprint Review focuses on the product increment and stakeholder feedback, not directly on Kanban metrics.

Option C (Kanban helps Scrum Teams deal with simple and complicated work where empiricism is not necessary) is incorrect because both Kanban and Scrum rely on empiricism (transparency, inspection, and adaptation) to deal with work complexity

QUESTION 3
Upon which of the five Scrum Values does Professional Scrum with Kanban build?
(choose the best three answers)

A. Courage.
B. Transparency.
C. Focus.
D. Openness.
E. Professionalism.

Correct Answer: A, C, D
Section:
Explanation:
Professional Scrum with Kanban builds upon the core Scrum values to enhance flow and effectiveness within the team. The relevant values are:
* Courage: Encourages team members to address issues, experiment with changes in the workflow, and make adjustments transparently, even when facing uncertainty.
* Focus: Enhances the team's ability to concentrate on achieving the Sprint Goal and flow of work items by using Work in Progress (WIP) limits and other Kanban practices.
* Openness: Promotes an open environment where the team transparently shares information on work progress, obstacles, and opportunities for improvement, which is key for continuous inspection and adaptation in Kanban.
These values directly support the empirical process control and continuous improvement principles of Kanban

QUESTION 4
When the Developers limit Work in Progress (WIP) inside a Sprint, what would you expect to observe?
(choose the best three answers)

A. The Developers would stop beginning work, and instead, start finishing work.
B. The amount of work done by the end of the Sprint would be reduced.
C. Self-management would be strengthened as a result of increased transparency.
D. Increased collaboration/swarming between the Developers.

Correct Answer: A, C, D
Section:
Explanation:
When Developers limit Work in Progress (WIP) within a Sprint:
1. Developers Stop Beginning Work and Start Finishing Work (Option A):
Limiting WIP encourages the team to focus on completing work that has already been started rather than starting new tasks. This 'stop starting, start finishing' approach helps to reduce multitasking and ensures that tasks are completed more efficiently(
2. Self-management Strengthened Due to Increased Transparency (Option C):
Limiting WIP increases transparency by clearly showing what work is in progress and what remains to be done. This heightened visibility encourages the Developers to self-manage more effectively, as they can see what needs attention and make collective decisions about the next steps(
3. Increased Collaboration/Swarming Between Developers (Option D):
With a limited amount of work in progress, Developers are more likely to collaborate or 'swarm' on the tasks that are currently active. This can lead to faster completion of tasks, shared knowledge among team members, and a stronger sense of teamwork(
Option B (The amount of work done by the end of the Sprint would be reduced) is not necessarily correct. Limiting WIP does not inherently reduce the amount of work completed; instead, it aims to improve focus, reduce waste, and ensure more consistent delivery.

QUESTION 5
True or False: Little's Law is used to forecast a Scrum Team's output.

A. True
B. False

Correct Answer: B
Section:
Explanation:
Little's Law establishes a relationship between three flow metrics: Work in Progress (WIP), Cycle Time, and Throughput. It provides insights into how changes in one metric affect the others in a stable system.
Little's Law is used to understand and manage flow within a system but is not a forecasting tool for output or future performance. It assumes a stable and predictable system where the input and output rates are consistent.
Why Not True?
Forecasting requires variability, historical data, and often different statistical models. While Little's Law supports system predictability and capacity planning, it does not directly project future Scrum Team outputs or delivery dates.
Thus, Little's Law helps teams analyze and optimize flow but is not used for forecasting.

QUESTION 6
Who must change the Work in Progress (WIP) Limits in the Definition of Workflow when urgent work emerges from the Sprint?
(choose the best answer)

A. The Developers.
B. The Product Owner.
C. The Scrum Master.
D. No one. Urgent work is not a reason to change WIP Limits.
E. No one. WIP Limits cannot be modified during a Sprint.

Correct Answer: D
Section:
Explanation:
In Professional Scrum with Kanban, the Work in Progress (WIP) limits are set as a policy to maintain a sustainable flow of work. Urgent work emerging does not automatically warrant changing these WIP limits; instead, the team should first discuss how to accommodate the urgent work within the existing constraints. Modifying WIP limits for urgent work could undermine the benefits of a controlled flow, which is why urgent work should not be a reason to change WIP limits during a Sprint

QUESTION 7
Scrum Teams using Kanban can start to increase predictability by:
(choose the best answer)

A. Visualizing the Workflow using a Kanban board.
B. Improving transparency by having a CFD, Control Chart and Aging chart.
C. Inspecting and adapting the Product Backlog during the Sprint Review.
D. Reducing the amount of work in progress by introducing Work in Progress (WIP) Limits.

Correct Answer: D
Section:
Explanation:
Scrum Teams using Kanban can start to increase predictability by reducing the amount of work in progress (WIP) through WIP limits. This approach helps to limit the number of items being worked on at any given time, thus reducing multitasking and context switching. It allows the team to focus on completing a few items before starting new ones, which directly impacts the flow of work and helps to predict when items will be completed. By controlling the WIP, teams can achieve a steady flow of work, improve cycle times, and make more reliable forecasts about future deliveries

QUESTION 8
True or False: If you reduce your batch size, your overall efficiency will always increase.

A. True
B. False

Correct Answer: B
Section:
Explanation:
Reducing batch size does not always guarantee an increase in overall efficiency. While smaller batch sizes can lead to faster feedback, more frequent deliveries, and reduced risk, there can be situations where reducing the batch size too much results in inefficiencies, such as increased overhead costs or excessive context switching. Thus, the relationship between batch size and efficiency depends on the context, system constraints, and the nature of the work

QUESTION 9
When can a Work in Progress (WIP) Limit change?
(choose the best answer)

A. At any time.
B. When the Product Owner decides to change it.
C. It never changes.
D. Only during the Sprint Retrospective.
E. Only during Sprint Planning.
F. Only during the Daily Scrum.

Correct Answer: A
Section:
Explanation:
Work in Progress (WIP) Limits can be adjusted at any time as needed to optimize flow and improve the system's efficiency. The decision to adjust WIP limits is typically informed by the team's observations of flow metrics (e.g., Cycle Time, Throughput, and Work Item Age) or to address bottlenecks or inefficiencies.
Supporting Reasons:
Kanban's Flexibility:
Unlike rigid frameworks, Kanban allows for flexibility in changing WIP limits whenever necessary to adapt to evolving conditions.
Scrum Events:
Adjustments to WIP limits are often discussed during events like the Sprint Retrospective or Daily Scrum, but these are not the only times changes can be made.
Empirical Process Control:
Teams use transparency, inspection, and adaptation to decide when to change WIP limits based on real-time needs.
Why Not the Other Options?
B . When the Product Owner decides to change it:
Incorrect. WIP limits are a team decision and are not controlled solely by the Product Owner.
C . It never changes:
Incorrect. WIP limits are not static; they are dynamic and evolve based on team and system needs.
D . Only during the Sprint Retrospective:
Incorrect. While the Sprint Retrospective is a common time to discuss adjustments, changes are not restricted to this event.
E . Only during Sprint Planning:
Incorrect. Sprint Planning focuses on selecting work for the Sprint, not exclusively on adjusting WIP limits.
F . Only during the Daily Scrum:
Incorrect. Adjustments can be made during the Daily Scrum but are not limited to this event.
Adjusting WIP limits at any time ensures the team maintains an optimal flow, a core principle of The Kanban Guide for Scrum Teams.

QUESTION 10

A Scrum Team's Definition of Workflow must have defined points at which the Scrum Team considers work to have started and to have finished. This allows the team to track their Work in Progress (WIP). How are these points defined?

(choose the best answer)

A. Any refined Product Backlog item in the Product Backlog is WIP.

B. How it is defined and who within the Scrum Team defines it depends on the boundaries and scope of the Definition of Workflow.

C. Any Product Backlog item in the Sprint Backlog is a WIP.

D. In any way the Scrum Team chooses to define it. They have the final say on the Sprint Backlog.

Correct Answer: B
Section:
Explanation:
The Definition of Workflow includes the agreed-upon points at which the Scrum Team considers work to have started and finished. These points are determined based on the boundaries and scope of the team's workflow. This definition must be clearly understood by the entire team to track Work in Progress (WIP) effectively and manage flow efficiently. It is up to the Scrum Team to define these boundaries to suit their specific context and workflow needs.

QUESTION 11

True or False: Work Item Age is a leading indicator for the length of the Scrum Team's feedback loop for that (in progress) item.

A. True

B. False

Correct Answer: A
Section:
Explanation:
Work Item Age is the amount of time a work item has been in progress. It acts as a leading indicator for the length of the Scrum Team's feedback loop for that item. If a work item stays in progress for too long, it indicates that feedback is delayed, potentially impacting the team's ability to adapt and respond effectively. Tracking Work Item Age helps the team monitor flow and take timely actions to ensure that feedback loops remain short and effective

QUESTION 12

You still need a Scrum Master when applying Kanban practices in the Scrum framework.

(choose the best answer)

A. It Depends.

B. Never.

C. Always.

Correct Answer: C
Section:
Explanation:
You always need a Scrum Master when applying Kanban practices in the Scrum framework. The role of the Scrum Master remains crucial, even when Kanban practices are incorporated, as they are responsible for ensuring that the Scrum framework is followed, including all the new practices introduced by Kanban. The Scrum Master helps facilitate the team's understanding and use of flow-based metrics and practices while maintaining the integrity of Scrum events, roles, and artifacts

QUESTION 13

What is a probabilistic forecast intended to communicate?

(choose the best answer)

A. The best way to predict the future performance of a team.

B. A guarantee of when a certain amount of scope will be complete.

C. A forecast based on past performance that can help discussions about the likelihood of achieving a certain goal in a given time frame.

Correct Answer: C
Section:
Explanation:
A probabilistic forecast is intended to communicate a prediction based on historical data, showing the likelihood of completing a certain amount of work within a given time frame. It helps the team and stakeholders understand the probability of meeting certain goals or deadlines based on past performance, supporting more informed decision-making

QUESTION 14
True or False: The Scrum Framework contains elements that can be treated as explicit policies.

A. True

B. False

Correct Answer: A
Section:
Explanation:
The Scrum framework contains elements that can be treated as explicit policies. For example, Scrum defines specific roles, events, and artifacts, which are treated as rules or guidelines that the team must follow to maintain Scrum's framework. In the context of Scrum with Kanban, additional explicit policies, such as Work in Progress (WIP) limits, may also be established to further optimize flow

QUESTION 15
What are possible benefits of supplementing Scrum with Kanban practices?
(choose the best four answers)

A. May result in greater collaboration within the Scrum Team.

B. Scrum Teams no longer need the Sprint time box.

C. May reduce the average Cycle Time.

D. Introduces better transparency into state of Work in Progress (WIP).

E. May help to discover areas of variability within your Sprint.

F. Removes the need for the Sprint Planning event.

G. Allows teams to release multiple times a Sprint.

Correct Answer: A, C, D, E
Section:
Explanation:
Supplementing Scrum with Kanban practices can bring several benefits to a Scrum Team:
* Greater Collaboration (A): By using Kanban practices like visualizing work and managing flow, team members have clearer visibility into each other's tasks, fostering better collaboration.
* Reduced Average Cycle Time (C): Kanban's focus on flow and limiting WIP helps decrease the time it takes for items to move from start to finish.
* Better Transparency (D): Kanban practices enhance visibility into the current state of work, making it easier to identify bottlenecks and areas for improvement.
* Discover Areas of Variability (E): The use of flow metrics such as cycle time and throughput in Kanban can help identify variability in processes, enabling the team to make adjustments for more predictable delivery

QUESTION 16
What is the best use for the Work Item Aging metric?
(Choose the best two answers)

A. To influence the Scrum Team's SLE.

B. To help the Developers inspect and adapt their Sprint in the Daily Scrum.

C. As a leading indicator to the length of the feedback loop for that Work Item.

D. As an indicator of the Work Item size.

E. To help the Scrum Team inspect and adapt their process and Definition of Workflow in their Retrospective.

Correct Answer: B, C
Section:
Explanation:
Work Item Aging is an essential metric that helps the Scrum Team monitor progress and detect potential delays early. It is especially useful in Daily Scrums to identify items that are taking longer than expected, allowing the team to take corrective actions and prevent delays. It also serves as a leading indicator of how long the feedback loop for a Work Item may take.

QUESTION 17
Which statements best describe the purpose of a Scrum Team's Definition of Workflow?
(Choose the best three answers)

A. It defines how value flows through the system.

B. It helps Service Request Manager track the percent completeness of a work item.

C. It provides a mutual understanding of when the work is considered to be started and finished.

D. It makes handoff policies explicit by defining clear quality gates between the development stages.

E. It is used as a checklist of all the states that every work item should go through before it is considered to be done.

F. It creates transparency over the Work in Progress (WIP) limiting rules.

Correct Answer: A, C, F
Section:
Explanation:
The Definition of Workflow clarifies how value moves through the system, establishes a shared understanding of when work items are considered to be in progress and completed, and enhances transparency, particularly around WIP limits. This provides structure to the Kanban system within Scrum and helps the team optimize their flow and maintain consistency.
Reference: The Kanban Guide for Scrum Teams.

QUESTION 18
When using Kanban in a Scrum environment, some resistance toward introducing Work in Progress (WIP) Limits may be encountered. What is an alternative to introducing WIP Limits in Kanban?

A. Using Kanban boards that improve visualization and enhance communication.

B. None, Professional Scrum with Kanban cannot be used without explicit WIP Limits.

C. Building a strong team identity using Squads and tribes.

D. Conducting Daily Stand-Up meetings that control not having too much work.

Correct Answer: A
Section:
Explanation:
Although WIP limits are central to Kanban, enhancing visualization and communication through Kanban boards can be a way to ease into WIP limits gradually. This alternative fosters transparency and alignment without directly imposing WIP constraints, which can be beneficial for teams adjusting to Kanban practices.
Reference: The Kanban Guide for Scrum Teams.

QUESTION 19
When is the most appropriate time for Scrum Teams practicing professional Scrum with

Kanban to inspect and adapt their Work in Progress (WIP) Limits?
(choose the best answer)

A. Anytime the Developers see fit.
B. Never. Once set, WIP Limits cannot be modified.
C. Every day during Daily Scrum.
D. During the Sprint Retrospective.

Correct Answer: D
Section:
Explanation:
In the context of Professional Scrum with Kanban, the Sprint Retrospective is the most suitable time to inspect and adapt WIP Limits. This is because the Retrospective is a dedicated time-box for the Scrum Team to reflect on its performance and identify areas for improvement.
Here's why:
Continuous Improvement: The Retrospective is a key part of the Scrum framework, designed to foster continuous improvement. By reviewing WIP Limits during this time, the team can assess their effectiveness and make data-driven decisions.
Data-Driven Decisions: By tracking WIP Limits over time, the team can gather valuable insights into their workflow and identify bottlenecks. This data can inform decisions about adjusting WIP Limits to optimize flow and productivity.
Team Collaboration: The Retrospective provides an opportunity for the entire team to discuss and agree upon changes to WIP Limits. This collaborative approach ensures buy-in and commitment from all team members.
While it's true that Developers can monitor WIP Limits throughout the Sprint, the Retrospective is the designated time for a formal review and adjustment. This ensures that any changes are aligned with the team's overall goals and strategy.

QUESTION 20
True or False: The primary effect of limiting Work in Progress (WIP) is that it creates a pull system.

A. True
B. False

Correct Answer: A
Section:
Explanation:
The primary effect of limiting Work in Progress (WIP) is to create a pull system. A pull system ensures that new work is only started when there is capacity, meaning that work is 'pulled' into the system when the team has the availability to do so. This approach prevents overloading the team and helps maintain a steady and predictable flow of work, aligning with the Kanban practices within the Scrum framework

QUESTION 21
Which of the following is NOT a flow metric?
(choose the best answer)

A. Cycle Time.
B. Work in Progress (WIP).
C. Throughput.
D. Work item age.
E. All of the above are flow metrics.

Correct Answer: B
Section:
Explanation:
While WIP is a crucial metric for Kanban teams, it is not a flow metric. Flow metrics measure the movement of work through the system, while WIP measures the amount of work currently in progress.

Here's a breakdown of the other options:

Cycle Time: The time it takes to complete a piece of work from start to finish.

Throughput: The rate at which work is completed.

Work item age: The amount of time a work item has spent in the system.

All of these metrics provide insights into the flow of work and can be used to identify bottlenecks and optimize the workflow.

Therefore, option B, 'Work in Progress (WIP),' is the correct answer.

QUESTION 22
As input for Daily Scrum, which metrics are likely to provide the most actionable data?
(choose the best answer)

A. Leading indicators.

B. Lagging indicators.

Correct Answer: A
Section:
Explanation:
Leading indicators are the most appropriate metrics for Daily Scrum because they provide information about the current state of the work and potential future issues. By tracking leading indicators, the team can identify potential problems early on and take proactive measures to address them.
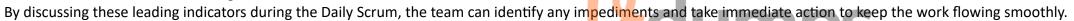
Here are some examples of leading indicators that can be useful during Daily Scrum:

WIP Limits: Are the WIP limits being adhered to?

Blocked Tasks: Are there any tasks that are blocked or waiting for dependencies?

Task Progress: How much progress has been made on each task?

Team Mood: Is the team morale high or low?

By discussing these leading indicators during the Daily Scrum, the team can identify any impediments and take immediate action to keep the work flowing smoothly.

Lagging indicators, on the other hand, provide information about past performance and are not as useful for identifying and addressing current issues. Examples of lagging indicators include cycle time, lead time, and throughput. While these metrics are important for long-term analysis and improvement, they are not as actionable in the context of the Daily Scrum.

QUESTION 23
What is the best chart to determine when a single item that has not been started will be finished?
(choose the best answer)

A. Cycle Time scatterplot.

B. Cumulative Flow diagram (CFD).

C. Throughput run chart.

D. WIP Aging chart.

Correct Answer: A
Section:
Explanation:
A Cycle Time scatterplot is the best chart to determine when a single item that has not been started will be finished. This chart shows the distribution of cycle times for completed work items. By analyzing the historical data, you can estimate the likely cycle time for a new item.

Here's how to use the Cycle Time scatterplot:

Identify the average cycle time: Calculate the average cycle time for similar types of work items.

Consider variability: Look at the range of cycle times to understand the variability in delivery times.

Estimate completion time: Based on the average cycle time and variability, estimate when the new item is likely to be completed.

While the other charts (CFD, Throughput run chart, and WIP Aging chart) provide valuable insights into the overall workflow, they are not as effective for predicting the completion time of a single item.

QUESTION 24

True or False: Little's Law is used to forecast a Scrum Team's output.

A. True
B. False

Correct Answer: B
Section:
Explanation:
Little's Law is a formula used to understand the relationship between system throughput, work-in-progress (WIP), and lead time. While it can be used to analyze and optimize the flow of work, it is not specifically designed for forecasting a Scrum Team's output.
Scrum Teams typically use techniques like story point estimation and historical velocity to forecast their output.

QUESTION 25
A service level expectation (SLE) consists of which two items?
(choose the best two answers)

A. A cost of delay.
B. A probability.
C. A forecasted date.
D. A period of elapsed days.

Correct Answer: B, D
Section:
Explanation:
A Service Level Expectation (SLE) in Kanban provides an agreement or expectation regarding the time it will take to complete a work item. An SLE consists of two main elements:
1. A probability (Option B): This is the likelihood or confidence level (e.g., 85%) that a work item will be completed within the specified period.
2. A period of elapsed days (Option D): This defines the maximum amount of time (e.g., 10 days) expected for a work item to be completed. The combination of these two elements helps set clear expectations and guide planning and forecasting efforts(
Options A (A cost of delay) and C (A forecasted date) are not part of the standard elements defining an SLE. The cost of delay is a concept related to prioritization, and a forecasted date is usually derived from the SLE but is not part of it.

QUESTION 26
True or False: A Scrum Team using Kanban does not need to craft a Sprint Goal during Sprint Planning. They can instead create one ''on-demand'' as new work flows into the Sprint Backlog.

A. True
B. False

Correct Answer: B
Section:
Explanation:
Even when using Kanban, Scrum Teams still follow the Scrum framework, which mandates crafting a Sprint Goal during Sprint Planning. The Sprint Goal provides focus and alignment for the team, ensuring that all work contributes toward a common objective, rather than being taken on as needed.
Reference: The Scrum Guide.