



Question Booklet  
Multiple Choice

# PeopleCert DevOps Fundamentals

## Sample Paper

### Instructions

1. All **40** questions should be attempted.
2. All answers are to be marked on the answer sheet provided.
3. Please use a pencil and **NOT** ink to mark your answers on the answer sheet provided.  
There is only one correct answer per question.
4. You have **60** minutes (**1 hour**) to complete this paper.

Candidate Name:.....



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1. Which of the following is the result of and a key contributor to the Downward Spiral that frequently occurs within IT?
  - A. Local Optimization
  - B. Disruptive Competition
  - C. Technical Debt
  - D. The Risk Gap
  
2. As part of the **First Way** of DevOps, what is the overall goal of **Flow**?
  - A. Increase the amount of time in which changes will be deployed so that the quality of services can be increased/improved
  - B. Improve communication and collaboration within the organization
  - C. Decrease the amount of time for changes to be deployed into production so that the reliability and quality of those services can be increased
  - D. Create a learning environment within the organization
  
3. What does the "S" stand for in C.A.L.M.S?
  - A. Service
  - B. Structures
  - C. Simplicity
  - D. Sharing

4. Which of the following is an example of a **non-functional test**?
- A. A Unit Test
  - B. An API Test
  - C. An Integration Test
  - D. A Compliance Test
5. Which of the following is **one** of the **four characteristics** of collaboration necessary for a DevOps culture?
- A. Balance
  - B. Transparency
  - C. Feedback
  - D. Consistency
6. Which of the following statements about **Necessary Non-Value Add** work is **TRUE**?
- A. It should be minimized
  - B. It should be eliminated
  - C. It is work that doesn't add value in any way to the customer or the business
  - D. It should be maximized

7. Which of the following is a characteristic of a **Transformative Leader**?
  - A. Personal Recognition
  - B. Charisma
  - C. Assertiveness
  - D. Empathy
  
8. Which organizational model **BEST** supports a **DevOps culture**?
  - A. Adaptive organization
  - B. Matrix organization
  - C. Product organization
  - D. Vertical organization
  
9. Which of the following is an **example** of an **ideal structure** for DevOps?
  - A. DevOps = DevOps Engineer
  - B. DevOps team silo
  - C. DevOps Team with an expiry date
  - D. DevOps doesn't need Ops

10. Which of the following statements **BEST** describes **Knowledge** according to the **DIKW** Model?
- A. It tells you the answers to questions such as who, what, when or where
  - B. It involves synthesis and processing by people to determine how it should be used
  - C. It is not usable until context is applied
  - D. It may require ethical considerations or a value judgment
11. When Value Stream Mapping, what is "**Lead Time**"?
- A. The time spent waiting for next steps to be completed
  - B. The time spent actually creating products or services
  - C. The total time spent on waste
  - D. The total time between input and output
12. How are the **Work Items** in a **Scrum Product Backlog** prioritized?
- A. Effort level
  - B. Profitability
  - C. Business value
  - D. Complexity

13. Which of the following statements in regard to both ITIL® Incident and Problem Management is **TRUE**?
- A. Both processes address what to do immediately when something breaks or goes wrong
  - B. In both processes, it is important in a DevOps environment that those in Development be more involved and invested
  - C. Incident and Problem Management are not easily adapted for a DevOps environment
  - D. Problem Management is more important than Incident Management to DevOps
14. Which of the following **BEST** defines **Kaizen**?
- A. It is about improving flow and processes incrementally
  - B. It is about big ideas
  - C. It is about focusing on improvement temporarily to achieve a big result
  - D. It is important to the Second Way and feedback
15. What are the **three** common **deployment** models for **cloud computing**?
- A. Private, public, secure
  - B. Public, private, hybrid
  - C. Reliable, private, flexible
  - D. Public, private, inexpensive

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16. There are four service models for cloud computing. The service in which the client manages the applications and the data and the vendor manages everything else is called:
- A. Software as a Service
  - B. Infrastructure as a Service
  - C. Traditional on-premise
  - D. Platform as a Service
17. Which of the following statements **BEST** defines the concept of **"Everything As Code"**?
- A. Everything is about reducing cost doing more with less
  - B. Everything is about increasing flexibility while improving quality service
  - C. Everything is becoming virtualized, becoming abstract as opposed to physical
  - D. Everything is becoming theoretical as opposed to physical
18. When microservices, slowly over time, replace the monolithic application by iteratively and seamlessly replacing specific features and functions, this is called:
- A. Automated Continuous Delivery
  - B. Automated Testing
  - C. Strangler Application pattern
  - D. An Accelerator



19. Identify the missing word(s) in the following sentence:

\_\_\_\_\_ are the three layers of the full stack of DevOps.

- A. Culture, Practices, and Automation...
- B. Customers, Products, and Services...
- C. Vision, Mission, and values...
- D. Tools, Projects and Procedures...

20. Consider the following list:

1. There is now a wider variety of cloud-based technical services and offshoring options available to the business that are perceived as offering lower costs and faster speeds than traditional IT.
2. Cloud technology has enabled business competition to rapidly come to market and disrupt traditional business models without having to enormously invest in infrastructure.
3. Effective IT is an absolute requirement for the digital transformation required to compete in the current marketplace and keep pace with technological changes to customer requirements.

Why is disruptive competition driving the business to demand more value from IT ?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

21. Which of the following options describes or characterizes what DevOps is **NOT**?

- A. A way to eliminate operations by using specific teams and a collection of tools for automation
- B. DevOps is a cultural shift that permeates throughout an entire organization.
- C. DevOps is less a strict and prescriptive system and more of a movement, philosophy or ideology.
- D. DevOps is about balancing speed and change within Dev and reliability and stability required by Ops.

22. Identify the missing word(s) in the following sentence:

\_\_\_\_\_ allows businesses to leverage the changes and opportunities that are presented by digital technologies and their accelerating impact in a way that is strategized and prioritized to become an advantage and not a disadvantage.

- A. Disruptive Competition...
- B. Digital Transformation...
- C. DevOps...
- D. Automation...

23. Consider the following statements:

1. Organizational structures encourage a silo mentality and discourage collaboration
2. Local optimization creates process and integration challenges
3. Simple processes result in waste
4. The reduction in the use of public cloud-based delivery options

Which two of the above are examples of an IT value delivery problem that DevOps seeks to address?

- A. 1 and 3 only
- B. 2 and 4 only
- C. 1 and 2 only
- D. 3 and 4

24. There are three types of work according to Lean. Which of the following is the one the customer is willing to pay for?

- A. Value-add
- B. Necessary value-add
- C. Non-value-add
- D. Necessary non-value-add

25. Identify the missing word(s) in the following sentence:

The \_\_\_\_\_ focuses understanding how work flows – at its most basic, how work moves from Dev to Ops and then from the functional areas of the business to customers – from left to right, one team to another.

- A. ...First Way...
- B. ...Second Way...
- C. ...Third Way...
- D. ...Theory of Constraints...

26. Consider the following list:

1. Cross functional teams
2. Product teams
3. Specialization Silos
4. Self-organization

Which of the above is **NOT** a teaming structures in which DevOps transforms people and culture within an organization?"

- A. 1
- B. 2
- C. 3
- D. 4

27. Identify the missing word(s) in the following sentence:

\_\_\_\_\_ is the pattern of shared assumptions and values learned within an organization.

- A. Collaboration...
- B. Organizational culture....
- C. Sharing...
- D. Transformational Leadership...

28. Identify the missing word(s) in the following sentence:

In self-organized teams the individual is asked to focus on \_\_\_\_\_ where on traditional teams on \_\_\_\_\_.

- A. ...end-to-end process... / ...their responsibilities...
- B. ...their responsibilities... / ...end-to-end process...
- C. ...day to day goals... / ...team tasks...
- D. ...team tasks... / ...day to day goals...

29. In regards to the C.A.L.M.S. acronym, which of the following refers to an emphasis on collaboration and communication between development and operations allowing them to effectively integrate?

- A. Culture
- B. Automation
- C. Measurement
- D. Sharing

30. Which of the following statements describes a transformational leadership approach?

- A. Ensures that staff are given clear goals and objectives, but they can challenge current working models
- B. Ensures that staff arrive at decisions based on processes that establish consensus
- C. Inspires and motivates people to achieve higher performance by focusing on values and purpose
- D. Drives compliance and behavioral change based on making people feel responsible for their mistakes

31. Which of the following is a transformational leadership characteristic?
- A. Vision
  - B. Decisive
  - C. Directive
  - D. Control
32. Which of the following is **NOT** a principle of Lean thinking?
- A. Map the value stream
  - B. The customer is always right
  - C. Create flow
  - D. Define value
33. What is the **BEST** description of utility and warranty?
- A. Utility = service features; warranty = period of post-delivery support
  - B. Utility = a measure of business usability; warranty = availability targets
  - C. Utility = service features; warranty = non-functional requirements
  - D. Utility = how service is delivered; warranty = service expiry details

34. Which of the following statements **BEST** describes the purpose of a CI Register?
- A. It provides tracking and management to continual improvement opportunities.
  - B. It measures improvement so it can then be approached strategically.
  - C. It encourages improving flow and processes incrementally.
  - D. It helps the identification of the root cause of problems.
35. Antifragility is defined as:
- A. The means to respond to, but also resist, incidents and disruptions of all kinds
  - B. The means to not only respond to and resist incidents and disruptions of all kinds, but to use them as an opportunity for learning and adaptation
  - C. The means to respond to worst-case scenarios and protect critical systems from incidents and disruption
  - D. The means to balancing improvements to time and cost efficiencies with improvements to quality and effectiveness
36. Which of the following answers is **NOT** an example of how DevOps tools support value delivery?
- A. Improves collaboration among teams and individuals
  - B. Enables continuous delivery across the deployment pipeline
  - C. Orchestrates automated testing, provisioning and deployment steps
  - D. Encourages each team to develop their own deployment pipeline

37. When an organization adopts a microservices application architecture, what is the impact on DevOps cross-functional teaming models?
- A. Product teams are disassembled into smaller microservices teams.
  - B. Cross-functional teams are no longer needed, enabling specialists to once again focus exclusively on their areas of specialization.
  - C. Product teams must be assembled to include each member of each technology's specialization.
  - D. Product teams can now work with platform teams through APIs and self-service capabilities.
38. Unit is a term used in which stage of the deployment pipeline in a DevOps Toolchain?
- A. Provisioning
  - B. Deploy
  - C. Build
  - D. Test
39. Consider the following statement:
- A set of specialized organizational capabilities for enabling value for customers in the form of services.
- Which term is defined in the statement above?
- A. Lean IT
  - B. Service Management
  - C. Agile Practices
  - D. DevOps

40. Which of the following statements is a dependency for automated provisioning to work?
- A. Application code is committed daily to a shared trunk.
  - B. The organization uses the practice of release branching.
  - C. The organization uses software defined infrastructure.
  - D. The organization has deployed a continuous delivery pipeline.



**Answer Key**

Question #	Key	Topic & Subtopic Learning Objective	Bloom Level
1	C	2.0 The Urgency for DevOps 2.2 The IT Value Delivery Problem Define the term "technical debt" (2.2.5.1)	BL1
2	C	3.0 Key DevOps Principles & Concepts 3.1 C.A.L.M.S. & The Three Ways Explain the importance of flow to DevOps (3.1.2.2)	BL2
3	D	3.0 Key DevOps Principles & Concepts 3.1 C.A.L.M.S. & The Three Ways List the values associated with the acronym C.A.L.M.S. (3.1.1.1)	BL1
4	D	3.0 Key DevOps Principles & Concepts 3.2 Continuous Delivery Across the Deployment Pipeline Compare and contrast functional and non-functional testing (3.2.1.4)	BL2
5	B	4.0 The Full Stack – People & Culture 4.1 Defining the DevOps Culture List the key characteristics of effective collaboration (4.1.2.1)	BL1
6	A	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Compare and contrast the three types of work according to Lean (5.2.3.2)	BL2
7	A	4.0 The Full Stack – People & Culture 4.2 Transformational Leadership Define the term "transformational leadership" (4.2.1.1)	BL1
8	A	4.0 The Full Stack – People & Culture 4.3 DevOps Structures & Teaming Select the organizational model that best supports a DevOps culture (4.3.1.2)	BL2
9	C	4.0 The Full Stack – People & Culture 4.3 DevOps Structures & Teaming List patterns and anti-patterns for DevOps teaming (4.3.4.1)	BL1
10	B	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Summarize the relationship between Data, Information, Knowledge and Wisdom according to the DIKW Model (5.2.5.2)	BL2
11	D	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Summarize the key components of the practice of Value Stream Mapping (5.2.4.2)	BL2
12	C	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Summarize the key components of Agile Scrum practices (5.2.7.5)	BL2
13	B	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Summarize how incident management should be adapted in a DevOps environment (5.2.12.2) Summarize how problem management should be adapted in a DevOps environment (5.2.13.2)	BL2
14	A	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Define the term "Kaizen" (5.2.13.1)	BL2
15	B	6.0 The Full Stack – Technology & Automation 6.1 Automation for the Deployment Pipeline	BL2

## PeopleCert DevOps: Fundamentals (Sample Paper)

Question #	Key	Topic & Subtopic Learning Objective	Bloom Level
		Explain how a toolchain can be used to automate the deployment pipeline (6.1.2.1)	
16	D	6.0 The Full Stack – Technology & Automation 6.2 Cloud Technology and Virtualization Explain the evolution from traditional on-premise cloud computing service models to software as a service (6.2.2.3)	BL2
17	B	6.0 The Full Stack – Technology & Automation 6.2 Cloud Technology and Virtualization Define the term “Everything as Code” (6.2.2.4)	BL1
18	C	6.0 The Full Stack – Technology & Automation 6.3 Architecting for Continuous Delivery Define the terms “Strangler Application” and “Strangler Application pattern” (6.3.3.1)	BL1
19	B	1.0 Introduction to DevOps 1.1 What Is DevOps List the three layers of the full stack of DevOps (1.1.3.1)	BL1
20	D	2.0 The Urgency for DevOps 2.1 The Business Value Delivery Problem Summarize the way in which each of the four key drivers of change impact business value and IT (2.1.2.2)	BL2
21	A	1.0 Introduction to DevOps 1.1 What Is DevOps Define DevOps and know what DevOps is and what it is not. (1.1.1.1)	BL2
22	B	2.0 The Urgency for DevOps 2.1 The Business Value Delivery Problem Define the term “digital transformation” (2.1.3.2)	BL1
23	C	2.0 The Urgency for DevOps 2.2 The IT Value Delivery Problem Summarize the consequences of silos, systems thinking and local optimization on IT's ability to deliver business value (2.2.1.2)	BL2
24	A	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Compare and contrast the three types of work according to Lean (5.2.3.2)	BL1
25	A	3.0 Key DevOps Principles & Concepts 3.1 C.A.L.M.S. & The Three Ways The First Way: Flow and its importance to DevOps (3.1.2.2)	BL1
26	C	3.0 Key DevOps Principles & Concepts 3.3 The Scope of DevOps List key ways that DevOps transforms people and culture (3.3.1.3)	BL1
27	B	4.0 The Full Stack – People & Culture 4.1 Defining the DevOps Culture Define the term “organizational culture” (4.1.1.1)	BL1
28	A	4.0 The Full Stack – People & Culture 4.2 Transformational Leadership Understand the difference between a self-organizing team and a traditional team and explain the importance of self-organizing teams to DevOps (4.2.3.1)	BL2
29	D	3.0 Key DevOps Principles & Concepts 3.1 C.A.L.M.S. & The Three Ways List the values associated with the acronym C.A.L.M.S. (3.1.1.2)	BL1
30	C	4.0 The Full Stack – Processes & Practices 4.2 Transformational Leadership	BL2

## PeopleCert DevOps: Fundamentals (Sample Paper)

Question #	Key	Topic & Subtopic Learning Objective	Bloom Level
		Describe the characteristics of transformational leadership (4.2.1.2)	
31	A	4.0 The Full Stack – People & Culture 4.2 Transformational Leadership Understand the Transformational Leader Characteristics (4.2.1.2)	BL1
32	B	5.0 The Full Stack – Processes & Practices 5.1 The Evolution of DevOps Practices Define Lean as a quality system focused on flow and state its principles (5.1.1.4)	BL2
33	C	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Compare and contrast the concepts of utility and warranty (5.2.1.2)	BL2
34	A	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Define the term “Continual Improvement Register (CIR)” and explain how Continual Improvement provides direction and support across the Full Stack (5.2.14.3)	BL2
35	B	5.0 The Full Stack – Processes & Practices 5.2 The 15 Essential Practices of DevOps Define the term “Antifragility” and explain the importance of the practice of Antifragility to DevOps (5.2.15.1)	BL1
36	D	6.0 The Full Stack – Technology & Automation 6.1 Automation for the Deployment Pipeline Explain the importance of tools and automation to DevOps (6.1.1.1)	BL2
37	D	6.0 The Full Stack – Technology & Automation 6.3 Architecting for Continuous Delivery Explain how DevOps teams can be structured to adopt cloud principles and roles (6.3.1.1)	BL2
38	A	6.0 The Full Stack – Technology & Automation 6.1 Automation for the Deployment Pipeline List examples of tools for each stage of the deployment pipeline in a DevOps Toolchain (6.1.3.1)	BL2
39	B	5.0 The Full Stack – Processes & Practices 5.1 The Evolution of DevOps Practices Define the term “IT Service Management (ITSM)” (5.1.1.1)	BL2
40	C	6.0 The Full Stack – Technology & Automation 6.1 Automation for the Deployment Pipeline Summarize the stages of maturity that organizations go through when implementing automation and continuous delivery (6.1.4.1)	BL2

### Topic Distribution

Category	Description	Exam (%)	Sample Questions
<b>1.0</b>	Introduction to DevOps	5.0%	<b>2</b>
<b>2.0</b>	The Urgency for DevOps	10.0%	<b>4</b>
<b>3.0</b>	Key DevOps Principles & Concepts	15.0%	<b>6</b>
<b>4.0</b>	The Full Stack – People & Culture	20.0%	<b>8</b>
<b>5.0</b>	The Full Stack – Processes & Practices	30.0%	<b>12</b>
<b>6.0</b>	The Full Stack – Technology & Automation	20.0%	<b>8</b>
	<b>Total</b>	<b>100.0%</b>	<b>40</b>

### Bloom Distribution

- BL1 : 40% or 16 questions in this sample paper
- BL2 : 60% or 24 questions in this sample paper