# Password Policy Questionnaire

## What You Will Be Doing

You will be asked a series of questions about several real-world password policies.

For each question, try to identify the corresponding statement in the password policy that addresses that question.

Select the responses that most closely reflect your understanding of what the policy is stating. Some questions may not be applicable for a particular policy, so select the most appropriate response.

## Our Objective

NIST will compare participants' responses with what password policies' actual requirements. By analyzing the responses of numerous participants, NIST intends to identify policy wording that is clear and unambiguous. NIST could then use the results to develop a password "grammar" that organizations could use to write clearer password policies, thereby reducing user frustration, improving compliance, improving system security and protecting user privacy.

## Let’s Begin!

To begin, select **Policies for Review** [link].

# 1. Communicating Passwords

The password policy may tell users whether or not they can provide their passwords to other people, under particular circumstances.

## Communication to Other People

The policy may address whether passwords can be communicated to other people.

**Communicating Passwords to Other People**

ID: 1.1

TITLE:

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated to **anyone**. (prohibited)

BNF: Users must not communicate passwords to anyone

()Passwords **must not** be communicated to **a third party**. (prohibited)

BNF: Users must not communicate passwords to a third party

()Passwords **should not** be communicated to **anyone**. (not recommended)

BNF: Users should not communicate passwords to anyone

()Passwords **should not** be communicated to **a third party**. (not recommended)

BNF: Users should not communicate passwords to a third party

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses with whom a password may not be communicated.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

## 1.2 Communication Methods

The policy may address specific methods for communicating passwords (e.g., mail, email, Internet, phone, etc.).

**Communication “by any method”**

ID: 1.2

TITLE: Communication "by any method"

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated "**by any method**." (prohibited)

BNF: Users must not communicate passwords by any means

()Passwords **should not** be communicated "**by any method**." (not recommended)

BNF: Users should not communicate passwords by any means

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords "by any method."

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication using any network**

ID: 1.3

TITLE: Communication using **any network**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated on **any network**. (prohibited)

BNF: Users must not communicate passwords by any network

()Passwords **must not** be communicated **unencrypted** on **any network**. (prohibited)

BNF: Users must not communicate passwords by any network without encryption

()Passwords **should not** be communicated on **any network**. (not recommended)

BNF: Users should not communicate passwords by any network

()Passwords **should not** be communicated **unencrypted** on **any network**. (not recommended)

BNF: Users should not communicate passwords by any network without encryption

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords on any network.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication using the Internet or a Wide Area Network (WAN)**

ID: 1.4

TITLE: Communication using **the Internet or a Wide Area Network (WAN)**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated using **the Internet or a WAN**. (prohibited)

BNF: Users must not communicate passwords by Internet or wide-area network

()Passwords **must not** be communicated **unencrypted** on **the Internet or a WAN**. (prohibited)

BNF: Users must not communicate passwords by Internet or wide-area network without encryption

()Passwords **should not** be communicated using **the Internet or a WAN**. (not recommended)

BNF: Users should not communicate passwords by Internet or wide-area network

()Passwords **should not** be communicated **unencrypted** on **the Internet or a WAN**. (not recommended)

BNF: Users should not communicate passwords by Internet or wide-area network without encryption

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords on the Internet or a Wide Area Network.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication using a Local Area Network (LAN)**

ID: 1.5

TITLE: Communication using a **Local Area Network (LAN)**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated using a **LAN**. (prohibited)

BNF: Users must not communicate passwords by local area network

()Passwords **must not** be communicated **unencrypted** on a **LAN**. (prohibited)

BNF: Users must not communicate passwords by local area network without encryption

()Passwords **should not** be communicated using a **LAN**. (not recommended)

BNF: Users should not communicate passwords by local area network

()Passwords **should not** be communicated **unencrypted** on a **LAN**. (not recommended)

BNF: Users should not communicate passwords by local area network without encryption

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords on a Local Area Network.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication by email**

ID: 1.6

TITLE: Communication by **email**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated by **email**. (prohibited)

BNF: Users must not communicate passwords by email

()Passwords **must not** be communicated **unencrypted** by **email**. (prohibited)

BNF: Users must not communicate passwords by email without encryption

()Passwords **should not** be communicated by **email**. (not recommended)

BNF: Users should not communicate passwords by email

()Passwords **should not** be communicated **unencrypted** by **email**. (not recommended)

BNF: Users should not communicate passwords by email without encryption

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords by email.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication by postal mail**

ID: 1.7

TITLE: Communication by **postal mail**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated by **postal mail**. (prohibited)

BNF: Users must not communicate passwords by mail

()Passwords **must not** be communicated **unencrypted** by **postal mail**. (prohibited)

BNF: Users must not communicate passwords by mail without encryption

()Passwords **should not** be communicated by **postal mail**. (not recommended)

BNF: Users should not communicate passwords by mail

()Passwords **should not** be communicated **unencrypted** by **postal mail**. (not recommended)

BNF: Users should not communicate passwords by mail without encryption

()None of the above.

ID: 1.8

TITLE: Communication by **postal mail, together with the user ID**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated by **postal mail together with the user ID**. (prohibited)

BNF: Users must not communicate passwords by mail accompanied by the user ID

()Passwords **should not** be communicated by **postal mail together with the user ID**. (not recommended)

BNF: Users should not communicate passwords by mail accompanied by the user ID

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords by postal mail.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Communication by phone**

ID: 1.9

TITLE: Communication by **phone**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated by **phone**. (prohibited)

BNF: Users must not communicate passwords by phone

()Passwords **should not** be communicated by **phone**. (not recommended)

BNF: Users should not communicate passwords by phone

()None of the above.

ID: 1.10

TITLE: Communication by **voicemail**

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated by **voicemail**. (prohibited)

BNF: Users must not communicate passwords by phone mail

()Passwords **should not** be communicated by **voicemail**. (not recommended)

BNF: Users should not communicate passwords by phone mail

()None of the above.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the communication of passwords by phone (or using voicemail).

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

**Emergency Situations**

ID: 1.11

TITLE: Exceptions for Emergency Situations

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be communicated, **except in emergency situations**. (prohibited)

BNF: Users must not communicate passwords except in an emergency

()Passwords **should not** be communicated, **except in emergency situations**. (not recommended)

BNF: Users should not communicate passwords except in an emergency

()The policy does not include an exception for emergency situations.

COMMENT: I am having problems with this question:

()I can’t tell if this policy includes an exception for communicating passwords in emergency situations.

()The choices above don’t let me identify what’s in the policy. (Please explain:) [BIG\_TEXT\_FIELD].

# 2. Creating Passwords

You will be asked about what **characters**, **words**, or **pre-existing passwords** can be used in passwords.

The following questions about **characters** address:

* password **length** (minimum and maximum);
* the **types of characters** used in passwords;
* the **positions** within passwords where certain characters can be used; and
* **combinations, sequences, and patterns** of characters.

## 2.1 Password Length

**Password Length**

ID: 2.1

TITLE:

TEXT: Minimum Password Length:

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must be** *at least* [NUMERICAL\_FIELD]{min:1} characters long. (required)

BNF: Users must create passwords with length greater than or equal to [REF: 2.1.A.a] characters

()Passwords **should be** *at least* [NUMERICAL\_FIELD]{min:1} characters long. (recommended)

BNF: Users should create passwords with length greater than or equal to [REF: 2.1.B.a] characters

()There is *no* *minimum* password length.

ID: 2.2

TITLE:

TEXT: Maximum Password Length:

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not be more than** [NUMERICAL\_FIELD]{min:1} characters long. (required)

BNF: Users must not create passwords with length greater than or equal to {[REF: 2.2.A.a]+1} characters

()Passwords **should not be more than** [NUMERICAL\_FIELD]{min:1} characters long. (recommended)

BNF: Users should not create passwords with length greater than or equal to {[REF: 2.2.B.a]+1} characters

()There is *no maximum* password length.

COMMENT: I am having problems with this question:

()I can’t tell if this policy has requirements for password length.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.2 Password Character Types

The following questions address the **types of characters** that may or may not be used in passwords.

**Alphanumeric characters**

ID: 2.3

TITLE:

TEXT: Regarding password creation, which of the following types of **letters and numbers** are mentioned in the policy? **Check all types mentioned in the policy**. You will then be asked a question about each one selected.

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

ID: 2.3.1

TITLE:

TEXT: ***Upper case letters*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.3.A

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of upper-case letters

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.3.1.1

TITLE:

TEXT: What is the **minimum** number of **upper case letters**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.1.B or 2.3.1.C or 2.3.1.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.3.1.B}: Users should not create passwords with a character in the set of upper-case letters

BNF {2.3.1.C}: Users should create passwords with a character in the set of upper-case letters

BNF {2.3.1.D}: Users must create passwords with a character in the set of upper-case letters

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} upper case letters ***must*** be used.

BNF: Users must create passwords with [REF: 2.3.1.1.B.a] or more characters in the set of upper-case letters

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} upper case letters ***should*** be used.

BNF: Users should create passwords with [REF: 2.3.1.1.C.a] or more characters in the set of upper-case letters

ID: 2.3.1.2

TITLE:

TEXT: What is the **maximum** number of **upper case letters**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.1.B or 2.3.1.C or 2.3.1.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} upper case letters.

BNF: Users must not create passwords with {[REF: 2.3.1.2.B.a]+1} or more characters in the set of upper-case letters

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} upper case letters.

BNF: Users should not create passwords with {[REF: 2.3.1.2.C.a]+1} or more characters in the set of upper-case letters

ID: 2.3.2

TITLE:

TEXT: ***Lower case letters*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.3.B

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of lower-case letters

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.3.2.1

TITLE:

TEXT: What is the **minimum** number of **lower case letters**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.2.B or 2.3.2.C or 2.3.2.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.3.2.B}: Users should not create passwords with a character in the set of lower-case letters

BNF {2.3.2.C}: Users should create passwords with a character in the set of lower-case letters

BNF {2.3.2.D}: Users must create passwords with a character in the set of lower-case letters

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} lower case letters ***must*** be used.

BNF: Users must create passwords with [REF: 2.3.2.1.B.a] or more characters in the set of lower-case letters

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} lower case letters ***should*** be used.

BNF: Users should create passwords with [REF: 2.3.2.1.C.a] or more characters in the set of lower-case letters

ID: 2.3.2.2

TITLE:

TEXT: What is the **maximum** number of **lower case letters**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.2.B or 2.3.2.C or 2.3.2.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} lower case letters.

BNF: Users must not create passwords with {[REF: 2.3.2.2.B.a]+1} or more characters in the set of lower-case letters

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} lower case letters.

BNF: Users should not create passwords with {[REF: 2.3.2.2.C.a]+1} or more characters in the set of lower-case letters

ID: 2.3.3

TITLE:

TEXT:**"*Letters*" *(case is not specified)*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.3.C

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of letters (unspec)

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.3.3.1

TITLE:

TEXT: What is the **minimum** number of **"letters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.3.B or 2.3.3.C or 2.3.3.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.3.3.B}: Users should not create passwords with a character in the set of letters (unspec)

BNF {2.3.3.C}: Users should create passwords with a character in the set of letters (unspec)

BNF {2.3.3.D}: Users must create passwords with a character in the set of letters (unspec)

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} "letters" ***must*** be used.

BNF: Users must create passwords with [REF: 2.3.3.1.B.a] or more characters in the set of letters (unspec)

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} "letters" ***should*** be used.

BNF: Users should create passwords with [REF: 2.3.3.1.C.a] or more characters in the set of letters (unspec)

ID: 2.3.3.2

TITLE:

TEXT: What is the **maximum** number of **"letters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.3.B or 2.3.3.C or 2.3.3.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} "letters."

BNF: Users must not create passwords with {[REF: 2.3.3.2.B.a]+1} or more characters in the set of letters (unspec)

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} "letters."

BNF: Users should not create passwords with {[REF: 2.3.3.2.C.a]+1} or more characters in the set of letters (unspec)

ID: 2.3.4

TITLE:

TEXT: ***Numbers*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.3.D

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of numbers

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.3.4.1

TITLE:

TEXT: What is the **minimum** number of **numbers**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.4.B or 2.3.4.C or 2.3.4.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.3.4.B}: Users should not create passwords with a character in the set of numbers

BNF {2.3.4.C}: Users should create passwords with a character in the set of numbers

BNF {2.3.4.D}: Users must create passwords with a character in the set of numbers

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} numbers ***must*** be used.

BNF: Users must create passwords with [REF: 2.3.4.1.B.a] or more characters in the set of numbers

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} numbers ***should*** be used.

BNF: Users should create passwords with [REF: 2.3.4.1.C.a] or more characters in the set of numbers

ID: 2.3.4.2

TITLE:

TEXT: What is the **maximum** number of **numbers**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.3.4.B or 2.3.4.C or 2.3.4.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} numbers.

BNF: Users must not create passwords with {[REF: 2.3.4.2.B.a]+1} or more characters in the set of numbers

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} numbers.

BNF: Users should not create passwords with {[REF: 2.3.4.2.C.a]+1} or more characters in the set of numbers

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using any of the characters mentioned above in passwords.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Characters from a specific list in the policy**

Questions 2.4 through 2.7 apply when the policy identifies specific, individual characters (e.g., # @ + $ etc.).

(answer all that apply; leave boxes blank if the question is not applicable)

ID: 2.4

TITLE: **Prohibited characters**

TEXT: The policy states that the following characters **must not be used** in passwords:

NOTE: (enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[SMALL\_TEXT\_FIELD]

BNF: Users must not create passwords with a character in the set of these special characters: [REF: 2.4.A.a]

ID: 2.5

TITLE: **Not recommended characters**

TEXT: The policy states that the following characters **should not be used** in passwords:

NOTE: (enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[SMALL\_TEXT\_FIELD]

BNF: Users should not create passwords with a character in the set of these special characters: [REF: 2.5.A.a]

ID: 2.6

TITLE: **Required characters**

TEXT: The policy states that the following characters **must be used** in passwords:

NOTE: (enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[SMALL\_TEXT\_FIELD]

ID: 2.6.1

TITLE:

TEXT: How many of these characters, at a **minimum**, *must* be used?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.6.A

DISPLAY\_WHERE:

()*At least* [NUMERICAL\_FIELD]{min:1} of these characters ***must*** be used.

BNF: Users must create passwords with [REF: 2.6.1.A.a] or more characters in the set of these special characters: [REF: 2.6.A.a]

()No minimum number is specified.

BNF {2.6}: Users must create passwords with a character in the set of these special characters: [REF: 2.6.A.a]

ID: 2.6.2

TITLE:

TEXT: *At most*, how many of these characters can be used?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.6.A

DISPLAY\_WHERE:

()(Requirement) A password ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these characters.

BNF: Users must not create passwords with {[REF: 2.6.2.A.a]+1} or more characters in the set of these special characters: [REF: 2.6.A.a]

()(Recommendation) A password ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these characters.

BNF: Users should not create passwords with {[REF: 2.6.2.B.a]+1} or more characters in the set of these special characters: [REF: 2.6.A.a]

()No maximum number is specified.

ID: 2.7

TITLE: **Recommended characters**

TEXT: The policy states that the following characters **should be used** in passwords:

NOTE: (enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[SMALL\_TEXT\_FIELD]

ID: 2.7.1

TITLE:

TEXT: How many of these characters, at a **minimum**, *should* be used?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.7.A

DISPLAY\_WHERE:

()*At least* [NUMERICAL\_FIELD]{min:1} of these characters ***should*** be used.

BNF: Users should create passwords with [REF: 2.7.1.A.a] or more characters in the set of these special characters: [REF: 2.7.A.a]

()No minimum number is specified.

BNF {2.7}: Users should create passwords with a character in the set of these special characters: [REF: 2.7.A.a]

ID: 2.7.2

TITLE:

TEXT: *At most*, how many of these characters can be used?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.7.A

DISPLAY\_WHERE:

()(Requirement) A password ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these characters.

BNF: Users must not create passwords with {[REF: 2.7.2.A.a]+1} or more characters in the set of these special characters: [REF: 2.7.A.a]

()(Recommendation) A password ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these characters.

BNF: Users should not create passwords with {[REF: 2.7.2.B.a]+1} or more characters in the set of these special characters: [REF: 2.7.A.a]

()No maximum number is specified.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using specific lists of characters.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Other characters**

ID: 2.8

TITLE:

TEXT: Regarding password creation, which of the following types of **other characters (special characters, whitespace, punctuation, etc.)** are mentioned in the policy? **Check all types mentioned in the policy**. You will then be asked a question about each one selected.

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

[]"Special characters"

[]"Punctuation"

[]"Control characters" (e.g., “Ctrl+C”) or "non-printable characters"

[]Whitespace

[]"All other characters"

ID: 2.8.1

TITLE:

TEXT: ***"Special characters"*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.8.A

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of special characters (unspec)

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.8.1.1

TITLE:

TEXT: What is the **minimum** number of **"special characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.1.B or 2.8.1.C or 2.8.1.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.8.1.B}: Users should not create passwords with a character in the set of special characters (unspec)

BNF {2.8.1.C}: Users should create passwords with a character in the set of special characters (unspec)

BNF {2.8.1.D}: Users must create passwords with a character in the set of special characters (unspec)

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} "special characters" ***must*** be used.

BNF: Users must create passwords with [REF: 2.8.1.1.B.a] or more characters in the set of special characters (unspec)

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} "special characters" ***should*** be used.

BNF: Users should create passwords with [REF: 2.8.1.1.C.a] or more characters in the set of special characters (unspec)

ID: 2.8.1.2

TITLE:

TEXT: What is the **maximum** number of **"special characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.1.B or 2.8.1.C or 2.8.1.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} "special characters".

BNF: Users must not create passwords with {[REF: 2.8.1.2.B.a]+1} or more characters in the set of special characters (unspec)

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} "special characters".

BNF: Users should not create passwords with {[REF: 2.8.1.2.C.a]+1} or more characters in the set of special characters (unspec)

ID: 2.8.2

TITLE:

TEXT: ***"Punctuation"*** is:

NOTE:(select one)

DISPLAY\_WHEN: 2.8.B

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of punctuation

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.8.2.1

TITLE:

TEXT: What is the **minimum** number of **"punctuation"** characters?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.2.B or 2.8.2.C or 2.8.2.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.8.2.B}: Users should not create passwords with a character in the set of punctuation

BNF {2.8.2.C}: Users should create passwords with a character in the set of punctuation

BNF {2.8.2.D}: Users must create passwords with a character in the set of punctuation

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} "punctuation" characters ***must*** be used.

BNF: Users must create passwords with [REF: 2.8.2.1.B.a] or more characters in the set of punctuation

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} "punctuation" characters ***should*** be used.

BNF: Users should create passwords with [REF: 2.8.2.1.C.a] or more characters in the set of punctuation

ID: 2.8.2.2

TITLE:

TEXT: What is the **maximum** number of **"punctuation"** characters?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.2.B or 2.8.2.C or 2.8.2.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} "punctuation" characters.

BNF: Users must not create passwords with {[REF: 2.8.2.2.B.a]+1} or more characters in the set of punctuation

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} "punctuation" characters.

BNF: Users should not create passwords with {[REF: 2.8.2.2.C.a]+1} or more characters in the set of punctuation

ID: 2.8.3

TITLE:

TEXT: ***"Control characters"*** or ***"non-printable characters"*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.8.C

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of control or non-printable characters (unspec)

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.8.3.1

TITLE:

TEXT: What is the **minimum** number of **"control characters"** or **"non-printable characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.3.B or 2.8.3.C or 2.8.3.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.8.3.B}: Users should not create passwords with a character in the set of control or non-printable characters (unspec)

BNF {2.8.3.C}: Users should create passwords with a character in the set of control or non-printable characters (unspec)

BNF {2.8.3.D}: Users must create passwords with a character in the set of control or non-printable characters (unspec)

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} of these types of characters ***must*** be used.

BNF: Users must create passwords with [REF: 2.8.3.1.B.a] or more characters in the set of control or non-printable characters (unspec)

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} of these types of characters ***should*** be used.

BNF: Users should create passwords with [REF: 2.8.3.1.C.a] or more characters in the set of control or non-printable characters (unspec)

ID: 2.8.3.2

TITLE:

TEXT: What is the **maximum** number of **"control characters"** or **"non-printable characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.3.B or 2.8.3.C or 2.8.3.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these types of characters.

BNF: Users must not create passwords with {[REF: 2.8.3.2.B.a]+1} or more characters in the set of control or non-printable characters (unspec)

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} of these types of characters.

BNF: Users should not create passwords with {[REF: 2.8.3.2.C.a]+1} or more characters in the set of control or non-printable characters (unspec)

ID: 2.8.4

TITLE:

TEXT: ***"Whitespace"*** is:

NOTE:(select one)

DISPLAY\_WHEN: 2.8.D

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of whitespace

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.8.4.1

TITLE:

TEXT: What is the **minimum** number of **"whitespace"** characters?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.4.B or 2.8.4.C or 2.8.4.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.8.4.B}: Users should not create passwords with a character in the set of whitespace

BNF {2.8.4.C}: Users should create passwords with a character in the set of whitespace

BNF {2.8.4.D}: Users must create passwords with a character in the set of whitespace

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} "whitespace" characters ***must*** be used.

BNF: Users must create passwords with [REF: 2.8.4.1.B.a] or more characters in the set of whitespace

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} "whitespace" characters ***should*** be used.

BNF: Users should create passwords with [REF: 2.8.2.1.C.a] or more characters in the set of whitespace

ID: 2.8.4.2

TITLE:

TEXT: What is the **maximum** number of **"whitespace"** characters?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.4.B or 2.8.4.C or 2.8.4.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} "whitespace" characters.

BNF: Users must not create passwords with {[REF: 2.8.4.2.B.a]+1} or more characters in the set of whitespace

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} "whitespace" characters.

BNF: Users should not create passwords with {[REF: 2.8.4.2.C.a]+1} or more characters in the set of whitespace

ID: 2.8.5

TITLE:

TEXT: ***"All other characters"*** are:

NOTE:(select one)

DISPLAY\_WHEN: 2.8.E

DISPLAY\_WHERE:

()prohibited (are *not* allowed; ***must not*** be in the password)

BNF: Users must not create passwords with a character in the set of all other characters (unspec)

()not recommended (*are* allowed, but ***should not*** be in the password)

()recommended (1 or more ***should*** be in the password)

()required (1 or more ***must*** be in the password)

ID: 2.8.5.1

TITLE:

TEXT: What is the **minimum** number of **"other characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.5.B or 2.8.5.C or 2.8.5.D

DISPLAY\_WHERE:

()No minimum number is specified.

BNF {2.8.5.B}: Users should not create passwords with a character in the set of all other characters (unspec)

BNF {2.8.5.C}: Users should create passwords with a character in the set of all other characters (unspec)

BNF {2.8.5.D}: Users must create passwords with a character in the set of all other characters (unspec)

()(Requirement) *At least* [NUMERICAL\_FIELD]{min:1} "other characters" ***must*** be used.

BNF: Users must create passwords with [REF: 2.8.5.1.B.a] or more characters in the set of all other characters (unspec)

()(Recommendation) *At least* [NUMERICAL\_FIELD]{min:1} "other characters" ***should*** be used.

BNF: Users should create passwords with [REF: 2.8.5.1.C.a] or more characters in the set of all other characters (unspec)

ID: 2.8.5.2

TITLE:

TEXT: What is the **maximum** number of **"other characters"**?

NOTE: (select the best answer)

DISPLAY\_WHEN: 2.8.5.B or 2.8.5.C or 2.8.5.D

DISPLAY\_WHERE:

()No maximum number is specified.

()(Requirement) Passwords ***must not*** *have more than* [NUMERICAL\_FIELD]{min:1} "other characters".

BNF: Users must not create passwords with {[REF: 2.8.5.2.B.a]+1} or more characters in the set of all other characters (unspec)

()(Recommendation) Passwords ***should not*** *have more than* [NUMERICAL\_FIELD]{min:1} "other characters".

BNF: Users should not create passwords with {[REF: 2.8.5.2.C.a]+1} or more characters in the set of all other characters (unspec)

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using any of the characters mentioned above in passwords.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Passwords with all/no characters from specific sets**

ID: 2.9

TITLE: **All** characters **must** comefrom specific character sets

TEXT: Does the policy **require** that **all** password characters **must** come from specific character set(s)?

NOTE: (select one)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes.

()No.

ID: 2.9.1

TITLE:

TEXT: The policy **requires** that **all** password characters **must** come from the following character set(s):

NOTE: (check all that apply)

DISPLAY\_WHEN: 2.9.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc. (enter all characters listed in the policy): [SMALL\_TEXT\_FIELD]

[]"Special characters"

[]"Punctuation"

[]"Control characters" (e.g., “Ctrl+C”) or "non-printable characters"

[]Whitespace

[]"All other characters"

BNF: Users must create passwords with all characters in the set of { }

ID: 2.10

TITLE: **All** characters **should** come from specific character sets

TEXT: Does the policy **recommend** that **all** password characters **should** come from specific character set(s)?

NOTE: (select one)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes.

()No.

ID: 2.10.1

TITLE:

TEXT: The policy **recommends** that **all** password characters **should** come from the following character set(s):

NOTE: (check all that apply)

DISPLAY\_WHEN: 2.10.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc. (enter all characters listed in the policy): [SMALL\_TEXT\_FIELD]

[]"Special characters"

[]"Punctuation"

[]"Control characters" (e.g., “Ctrl+C”) or "non-printable characters"

[]Whitespace

[]"All other characters"

BNF: Users should create passwords with all characters in the set of { }

ID: 2.11

TITLE: Passwordcharacters **must not** come only from specific character sets

TEXT: Does the policy **prohibit** using **only** characters from specific character set(s)?

NOTE: (select one)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes.

()No.

ID: 2.11.1

TITLE:

TEXT: Passwords **must not** contain **only** characters from the following set(s):

NOTE: (check all that apply)

DISPLAY\_WHEN: 2.11.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc. (enter all characters listed in the policy): [SMALL\_TEXT\_FIELD]

[]"Special characters"

[]"Punctuation"

[]"Control characters" (e.g., “Ctrl+C”) or "non-printable characters"

[]Whitespace

[]"All other characters"

BNF: Users must create passwords with all characters in the set of { }

ID: 2.12

TITLE: Passwordcharacters **should not** come only from specific character sets

TEXT: Does the policy **recommend against** using **only** characters from specific character set(s)?

NOTE: (select one)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes.

()No.

ID: 2.12.1

TITLE:

TEXT: Passwords **should not** contain **only** characters from the following set(s):

NOTE: (check all that apply)

DISPLAY\_WHEN: 2.12.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc. (enter all characters listed in the policy): [SMALL\_TEXT\_FIELD]

[]"Special characters"

[]"Punctuation"

[]"Control characters" (e.g., “Ctrl+C”) or "non-printable characters"

[]Whitespace

[]"All other characters"

BNF: Users must create passwords with all characters in the set of { }

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses the use of particular character sets for all characters in a password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Passwords using a minimum number of character sets**

ID: 2.13

TITLE:

TEXT: Passwords may need to consist of characters from “at least X” different character types. For example, “Passwords must include characters at least 3 of the following character sets: upper case, lower case, numbers and special characters.”

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must** include characters from at least [NUMERICAL\_FIELD]{min:1} of the character sets identified below (check all that apply)

()Passwords **should** include characters from at least [NUMERICAL\_FIELD]{min:1} of the character set identified below (check all that apply)

()The policy does not require or recommend using characters from “at least X” different character types from the sets identified below.

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc. (enter all characters listed in the policy): [SMALL\_TEXT\_FIELD]

[]"Special characters"

[]"Punctuation"

[]"Control characters" or "non-printable characters"

[]Whitespace

[]"All other characters"

BNF:

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using characters from at least a certain group of character sets.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Previous Passwords**

ID: 2.14

TITLE: Characters **used** in the previous password

TEXT:

NOTE: (select the best answer; enter a number, if applicable)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** include **any** characters from the previous password.

BNF: Users must not create passwords with a character in the set of those used in the previous password

()Passwords **must not** include [NUMERICAL\_FIELD]{min:1} or more characters from the previous password.

BNF: Users must not create passwords with [REF: 2.14.B.a] or more characters in the set of those used in the previous password

()Passwords **should not** include **any** characters from the previous password.

BNF: Users must not create passwords with a character in the set of those used in the previous password

()Passwords **should not** include [NUMERICAL\_FIELD]{min:1} or more characters from the previous password.

BNF: Users should not create passwords with [REF: 2.14.D.a] or more characters in the set of those used in the previous password

()The policy does not prohibit or recommend against using characters from the previous password.

ID: 2.15

TITLE: Characters **not used** in the previous password

TEXT:

NOTE: (select the best answer; enter a number, if applicable)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must** include **only** characters **not used** in the previous password.

BNF: Users must create passwords with all characters in the set of those not used in the previous password

()Passwords **must** include [NUMERICAL\_FIELD]{min:1} or more characters from the previous password.

BNF: Users must create passwords with [REF: 2.15.B.a] or more characters in the set of those not used in the previous password

()Passwords **should** include **any** characters from the previous password.

BNF: Users should create passwords with all characters in the set of those not used in the previous password

()Passwords **should** include [NUMERICAL\_FIELD]{min:1} or more characters from the previous password.

BNF: Users must create passwords with [REF: 2.15.D.a] or more characters in the set of those not used in the previous password

()The policy does not require or recommend using characters not used in the previous password.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using—or not using—characters from the previous password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.3 Password Character Positions

The policy may address the use of specific characters

* as the **first or last character** of a password;
* in the **middle** of a password (any position between the first and last characters); or
* **near the beginning** of a password (i.e., within the first N characters).

The following questions will ask about each of these.

**First or Last Character**

ID: 2.16

TITLE: First or Last Character

TEXT: Does the policy address what character types can be used in the first or last character position of a password? For example: “Passwords cannot begin or end with punctuation.”

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes

()No

ID: 2.16.1

TITLE:

TEXT: In the list below, check all of the character types mentioned by the policy, regarding their use as **either the first or last character** of a password. You will then be asked a question for each checked type.

NOTE: (select all that apply)

DISPLAY\_WHEN: 2.16.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc.

[]"Special characters"

[]"Punctuation"

[]"Control characters" or "non-printable characters"

[]Whitespace

[]"All other characters"

[]Characters used in the previous password

[]Characters *not* used in the previous password

ID: 2.16.1.1

TITLE:

TEXT: ***Upper case letters***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.A

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of upper-case letters

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of upper-case letters

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of upper-case letters

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of upper-case letters

ID: 2.16.1.2

TITLE:

TEXT: ***Lower case letters***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.B

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of lower-case letters

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of lower-case letters

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of lower-case letters

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of lower-case letters

ID: 2.16.1.3

TITLE:

TEXT:**"*Letters*" *(case is not specified)***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.C

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of letters (unspec)

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of letters (unspec)

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of letters (unspec)

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of letters (unspec)

ID: 2.16.1.4

TITLE:

TEXT: ***Numbers***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.D

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of numbers

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of numbers

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of numbers

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of numbers

ID: 2.16.1.5

TITLE: ***Characters from a specific list in the policy***

TEXT:The first or last character:

NOTE: (select all that apply; enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN: 2.16.1.E

DISPLAY\_WHERE:

()**must** be one of the following characters: [SMALL\_TEXT\_FIELD] (required)

BNF: Users must create passwords with a first or last character in the set of these special characters: [REF:2.16.1.5.A.a]

()**should** be one of the following characters: [SMALL\_TEXT\_FIELD] (recommended)

BNF: Users should create passwords with a first or last character in the set of these special characters: [REF:2.16.1.5.B.a]

()**should not** be one of the following characters: [SMALL\_TEXT\_FIELD] (not recommended)

BNF: Users should not create passwords with a first or last character in the set of these special characters: [REF:2.16.1.5.C.a]

()**must not** be one of the following characters: [SMALL\_TEXT\_FIELD] (prohibited)

BNF: Users must not create passwords with a first or last character in the set of these special characters: [REF:2.16.1.5.D.a]

ID: 2.16.1.6

TITLE:

TEXT: ***“Special characters”***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.F

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of special characters (unspec)

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of special characters (unspec)

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of special characters (unspec)

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of special characters (unspec)

ID: 2.16.1.7

TITLE:

TEXT: ***“Punctuation”***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.G

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of punctuation

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of punctuation

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of punctuation

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of punctuation

ID: 2.16.1.8

TITLE:

TEXT: ***“Control characters”*** (e.g., “Ctrl+C”) or ***“non-printable characters”***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.H

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of control or non-printable characters (unspec)

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of control or non-printable characters (unspec)

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of control or non-printable characters (unspec)

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of control or non-printable characters (unspec)

ID: 2.16.1.9

TITLE:

TEXT: ***Whitespace***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.I

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of whitespace

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of whitespace

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of whitespace

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of whitespace

ID: 2.16.1.10

TITLE:

TEXT: ***“All other characters”***:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.J

DISPLAY\_WHERE:

()**must** be used as the first or last character. (required)

BNF: Users must create passwords with a first or last character in the set of all other characters (unspec)

()**should** be used as the first or last character. (recommended)

BNF: Users should create passwords with a first or last character in the set of all other characters (unspec)

()**should not** be used as the first or last character. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of all other characters (unspec)

()**must not** be used as the first or last character. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of all other characters (unspec)

ID: 2.16.1.11

TITLE: ***Characters used in the previous password***

TEXT:The first or last character:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.K

DISPLAY\_WHERE:

()**must** be a character from the previous password. (required)

BNF: Users must create passwords with a first or last character in the set of those used in the previous password

()**should** be a character from the previous password. (recommended)

BNF: Users should create passwords with a first or last character in the set of those used in the previous password

()**should not** be a character from the previous password. (not recommended)

BNF: Users should not create passwords with a first or last character in the set of those used in the previous password

()**must not** be a character from the previous password. (prohibited)

BNF: Users must not create passwords with a first or last character in the set of those used in the previous password

ID: 2.16.1.12

TITLE: ***Characters not used in the previous password***

TEXT:The first or last character:

NOTE: (select one)

DISPLAY\_WHEN: 2.16.1.L

DISPLAY\_WHERE:

()**must** be a character **not used** in the previous password. (required)

BNF: Users must create passwords with a first or last character in the set of those not used in the previous password

()**should** be a character **not used** in the previous password. (recommended)

BNF: Users should create passwords with a first or last character in the set of those not used in the previous password

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using particular types of characters in the first or last position of a password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Internal Characters**

ID: 2.17

TITLE: Internal Characters

TEXT: Does the policy address what character types can be used **in the middle** (i.e., not the first or last character) of a password? For example: “Passwords must include special characters, but cannot begin or end with them.”

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes

()No

ID: 2.17.1

TITLE:

TEXT: In the list below, check all of the character types mentioned by the policy, regarding their use as **internal characters** of a password. You will then be asked a question for each checked type.

NOTE: (select all that apply)

DISPLAY\_WHEN: 2.17.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc.

[]"Special characters"

[]"Punctuation"

[]"Control characters" or "non-printable characters"

[]Whitespace

[]"All other characters"

[]Characters used in the previous password

[]Characters *not* used in the previous password

ID: 2.17.1.1

TITLE: ***Upper case letters***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.A

DISPLAY\_WHERE:

()**must** include an upper case letter. (required)

BNF: Users must create passwords with an internal character in the set of upper-case letters

()**should** include an upper case letter. (recommended)

BNF: Users should create passwords with an internal character in the set of upper-case letters

()**should not** include an upper case letter. (not recommended)

BNF: Users should not create passwords with an internal character in the set of upper-case letters

()**must not** include an upper case letter. (prohibited)

BNF: Users must not create passwords with an internal character in the set of upper-case letters

ID: 2.17.1.2

TITLE: ***Lower case letters***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.B

DISPLAY\_WHERE:

()**must** include a lower case letter. (required)

BNF: Users must create passwords with an internal character in the set of lower-case letters

()**should** include a lower case letter. (recommended)

BNF: Users should create passwords with an internal character in the set of lower-case letters

()**should not** include a lower case letter. (not recommended)

BNF: Users should not create passwords with an internal character in the set of lower-case letters

()**must not** include a lower case letter. (prohibited)

BNF: Users must not create passwords with an internal character in the set of lower-case letters

ID: 2.17.1.3

TITLE: **"*Letters*" *(case is not specified)***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.C

DISPLAY\_WHERE:

()**must** include a “letter.” (required)

BNF: Users must create passwords with an internal character in the set of letters (unspec)

()**should** include a “letter.” (recommended)

BNF: Users should create passwords with an internal character in the set of letters (unspec)

()**should not** include a “letter.” (not recommended)

BNF: Users should not create passwords with an internal character in the set of letters (unspec)

()**must not** include a “letter.” (prohibited)

BNF: Users must not create passwords with an internal character in the set of letters (unspec)

ID: 2.17.1.4

TITLE: ***Numbers***

TEXT: Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.D

DISPLAY\_WHERE:

()**must** include a number. (required)

BNF: Users must create passwords with an internal character in the set of numbers

()**should** include a number. (recommended)

BNF: Users should create passwords with an internal character in the set of numbers

()**should not** include a number. (not recommended)

BNF: Users should not create passwords with an internal character in the set of numbers

()**must not** include a number. (prohibited)

BNF: Users must not create passwords with an internal character in the set of numbers

ID: 2.17.1.5

TITLE: ***Characters from a specific list in the policy***

TEXT:Internal characters:

NOTE: (select all that apply; enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN: 2.17.1.E

DISPLAY\_WHERE:

()**must** include one of the following characters: [SMALL\_TEXT\_FIELD] (required)

BNF: Users must create passwords with an internal character in the set of these special characters: [REF:2.17.1.5.A.a]

()**should** include one of the following characters: [SMALL\_TEXT\_FIELD] (recommended)

BNF: Users should create passwords with an internal character in the set of these special characters: [REF:2.17.1.5.B.a]

()**should not** include one of the following characters: [SMALL\_TEXT\_FIELD] (not recommended)

BNF: Users should not create passwords with an internal character in the set of these special characters: [REF:2.17.1.5.C.a]

()**must not** include one of the following characters: [SMALL\_TEXT\_FIELD] (prohibited)

BNF: Users must not create passwords with an internal character in the set of these special characters: [REF:2.17.1.5.D.a]

ID: 2.17.1.6

TITLE: ***“Special characters”***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.F

DISPLAY\_WHERE:

()**must** include a “special character.” (required)

BNF: Users must create passwords with an internal character in the set of special characters (unspec)

()**should** include a “special character.” (recommended)

BNF: Users should create passwords with an internal character in the set of special characters (unspec)

()**should not** include a “special character.” (not recommended)

BNF: Users should not create passwords with an internal character in the set of special characters (unspec)

()**must not** include a “special character.” (prohibited)

BNF: Users must not create passwords with an internal character in the set of special characters (unspec)

ID: 2.17.1.7

TITLE: ***“Punctuation”***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.G

DISPLAY\_WHERE:

()**must** include “punctuation.” (required)

BNF: Users must create passwords with an internal character in the set of punctuation

()**should** include “punctuation.” (recommended)

BNF: Users should create passwords with an internal character in the set of punctuation

()**should not** include “punctuation.” (not recommended)

BNF: Users should not create passwords with an internal character in the set of punctuation

()**must not** include “punctuation.” (prohibited)

BNF: Users must not create passwords with an internal character in the set of punctuation

ID: 2.17.1.8

TITLE: ***“Control characters”*** (e.g., “Ctrl+C”) or ***“non-printable characters”***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.H

DISPLAY\_WHERE:

()**must** include a “control character” or “non-printable character.” (required)

BNF: Users must create passwords with an internal character in the set of control or non-printable characters (unspec)

()**should** include a “control character” or “non-printable character.” (recommended)

BNF: Users should create passwords with an internal character in the set of control or non-printable characters (unspec)

()**should not** include a “control character” or “non-printable character.” (not recommended)

BNF: Users should not create passwords with an internal character in the set of control or non-printable characters (unspec)

()**must not** include a “control character” or “non-printable character.” (prohibited)

BNF: Users must not create passwords with an internal character in the set of control or non-printable characters (unspec)

ID: 2.17.1.9

TITLE: ***Whitespace***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.I

DISPLAY\_WHERE:

()**must** include whitespace. (required)

BNF: Users must create passwords with an internal character in the set of whitespace

()**should** include whitespace. (recommended)

BNF: Users should create passwords with an internal character in the set of whitespace

()**should not** include whitespace. (not recommended)

BNF: Users should not create passwords with an internal character in the set of whitespace

()**must not** include whitespace. (prohibited)

BNF: Users must not create passwords with an internal character in the set of whitespace

ID: 2.17.1.10

TITLE: ***“All other characters”***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.J

DISPLAY\_WHERE:

()**must** include “all other characters.” (required)

BNF: Users must create passwords with an internal character in the set of all other characters (unspec)

()**should** include “all other characters.” (recommended)

BNF: Users should create passwords with an internal character in the set of all other characters (unspec)

()**should not** include “all other characters.” (not recommended)

BNF: Users should not create passwords with an internal character in the set of all other characters (unspec)

()**must not** include “all other characters.” (prohibited)

BNF: Users must not create passwords with an internal character in the set of all other characters (unspec)

ID: 2.17.1.11

TITLE: ***Characters used in the previous password***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.K

DISPLAY\_WHERE:

()**must** include a character from the previous password. (required)

BNF: Users must create passwords with an internal character in the set of those used in the previous password

()**should** include a character from the previous password. (recommended)

BNF: Users should create passwords with an internal character in the set of those used in the previous password

()**should not** include a character from the previous password. (not recommended)

BNF: Users should not create passwords with an internal character in the set of those used in the previous password

()**must not** include a character from the previous password. (prohibited)

BNF: Users must not create passwords with an internal character in the set of those used in the previous password

ID: 2.17.1.12

TITLE: ***Characters not used in the previous password***

TEXT:Internal characters:

NOTE: (select one)

DISPLAY\_WHEN: 2.17.1.L

DISPLAY\_WHERE:

()**must** be a character **not used** in the previous password. (required)

BNF: Users must create passwords with an internal character in the set of those not used in the previous password

()**should** be a character **not used** in the previous password. (recommended)

BNF: Users should create passwords with an internal character in the set of those not used in the previous password

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using particular types of characters in the middle (i.e., not the first or last position) of a password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Near the Beginning**

ID: 2.18

TITLE: Near the Beginning of a Password

TEXT: Does the policy address what character types can be used **near the beginning** of a password? For example: “Passwords must include a number within the first 5 characters.” If a statement specifically refers to the very first character of a password, respond using the “First or Last Character” question above.

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes

()No

ID: 2.18.1

TITLE:

TEXT: In the list below, check all of the character types mentioned by the policy, regarding their use as **near the beginning (i.e., within the first N characters)** of a password. You will then be asked a question for each checked type.

NOTE: (select all that apply)

DISPLAY\_WHEN: 2.18.A

DISPLAY\_WHERE:

[]Upper case letters

[]Lower case letters

[]"Letters" (case is not specified)

[]Numbers

[]A list of specific characters, e.g., # @ + $ etc.

[]"Special characters"

[]"Punctuation"

[]"Control characters" or "non-printable characters"

[]Whitespace

[]"All other characters"

[]Characters used in the previous password

[]Characters *not* used in the previous password

ID: 2.18.1.1

TITLE: ***Upper case letters***

TEXT:

NOTE: (select one, and enter a number)

DISPLAY\_WHEN: 2.18.1.A

DISPLAY\_WHERE:

()There **must** be an upper case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.1.A.a] characters in the set of upper-case letters

()There **should** be an upper case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.1.B.a] characters in the set of upper-case letters

()There **should not** be an upper case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.1.C.a] characters in the set of upper-case letters

()There **must not** be an upper case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.1.D.a] characters in the set of upper-case letters

ID: 2.18.1.2

TITLE: ***Lower case letters***

TEXT:

NOTE: (select one, and enter a number)

DISPLAY\_WHEN: 2.18.1.B

DISPLAY\_WHERE:

()There **must** be a lower case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.2.A.a] characters in the set of lower-case letters

()There **should** be a lower case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.2.B.a] characters in the set of lower-case letters

()There **should not** be a lower case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.2.C.a] characters in the set of lower-case letters

()There **must not** be a lower case letter **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.2.D.a] characters in the set of lower-case letters

ID: 2.18.1.3

TITLE: **"*Letters*" *(case is not specified)***

TEXT:

NOTE: (select one, and enter a number)

DISPLAY\_WHEN: 2.18.1.C

DISPLAY\_WHERE:

()There **must** be a “letter” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.3.A.a] characters in the set of letters (unspec)

()There **should** be a “letter” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.3.B.a] characters in the set of letters (unspec)

()There **should not** be a “letter” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.3.2.C.a] characters in the set of letters (unspec)

()There **must not** be a “letter” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.3.D.a] characters in the set of letters (unspec)

ID: 2.18.1.4

TITLE: ***Numbers***

TEXT:

NOTE: (select one, and enter a number)

DISPLAY\_WHEN: 2.18.1.D

DISPLAY\_WHERE:

()There **must** be a number **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.4.A.a] characters in the set of numbers

()There **should** be a number **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.4.B.a] characters in the set of numbers

()There **should not** be a number **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.4.C.a] characters in the set of numbers

()There **must not** be a number **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.4.D.a] characters in the set of numbers

ID: 2.18.1.5

TITLE: ***Characters from a specific list in the policy***

TEXT:

NOTE: (select all that apply; enter the specific characters mentioned in the policy, e.g., # @ + $)

DISPLAY\_WHEN: 2.18.1.E

DISPLAY\_WHERE:

()**Within the first** [NUMERICAL\_FIELD]{min:1} **characters**, there **must** be one of the following characters: [SMALL\_TEXT\_FIELD] (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.5.A.a] characters in the set of these special characters: [REF:2.18.1.5.A.b]

()**Within the first** [NUMERICAL\_FIELD]{min:1} **characters**, there **should** be one of the following characters: [SMALL\_TEXT\_FIELD] (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.5.B.a] characters in the set of these special characters: [REF:2.18.1.5.B.a]

()**Within the first** [NUMERICAL\_FIELD]{min:1} **characters**, there **should not** be one of the following characters: [SMALL\_TEXT\_FIELD] (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.5.C.a] characters in the set of these special characters: [REF:2.18.1.5.C.a]

()**Within the first** [NUMERICAL\_FIELD]{min:1} **characters**, there **must not** be one of the following characters: [SMALL\_TEXT\_FIELD] (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.5.D.a] characters in the set of these special characters: [REF:2.18.1.5.D.a]

ID: 2.18.1.6

TITLE: ***“Special characters”***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.F

DISPLAY\_WHERE:

()There **must** be a “special character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.6.A.a] characters in the set of special characters (unspec)

()There **should** be a “special character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.6.B.a] characters in the set of special characters (unspec)

()There **should not** be a “special character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.6.C.a] characters in the set of special characters (unspec)

()There **must not** be a “special character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.6.D.a] characters in the set of special characters (unspec)

ID: 2.18.1.7

TITLE: ***“Punctuation”***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.G

DISPLAY\_WHERE:

()There **must** be “punctuation” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.7.A.a] characters in the set of punctuation

()There **should** be “punctuation” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.7.B.a] characters in the set of punctuation

()There **should not** be “punctuation” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.7.C.a] characters in the set of punctuation

()There **must not** be “punctuation” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.7.D.a] characters in the set of punctuation

ID: 2.18.1.8

TITLE: ***“Control characters”*** (e.g., “Ctrl+C”) or ***“non-printable characters”***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.H

DISPLAY\_WHERE:

()There **must** be a “control character” or “non-printable character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.8.A.a] characters in the set of control or non-printable characters (unspec)

()There **should** be a “control character” or “non-printable character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.8.B.a] characters in the set of control or non-printable characters (unspec)

()There **should not** be a “control character” or “non-printable character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.8.C.a] characters in the set of control or non-printable characters (unspec)

()There **must not** be a “control character” or “non-printable character” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.8.D.a] characters in the set of control or non-printable characters (unspec)

ID: 2.18.1.9

TITLE: ***Whitespace***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.I

DISPLAY\_WHERE:

()There **must** be whitespace **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.9.A.a] characters in the set of whitespace

()There **should** be whitespace **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.9.B.a] characters in the set of whitespace

()There **should not** be whitespace **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.9.C.a] characters in the set of whitespace

()There **must not** be whitespace **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.9.D.a] characters in the set of whitespace

ID: 2.18.1.10

TITLE: ***“All other characters”***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.J

DISPLAY\_WHERE:

()There **must** be “other characters” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.10.A.a] characters in the set of all other characters (unspec)

()There **should** be “other characters” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.10.B.a] characters in the set of all other characters (unspec)

()There **should not** be “other characters” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.10.C.a] characters in the set of all other characters (unspec)

()There **must not** be “other characters” **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.10.D.a] characters in the set of all other characters (unspec)

ID: 2.18.1.11

TITLE: ***Characters used in the previous password***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.K

DISPLAY\_WHERE:

()There **must** be a character from the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.11.A.a] characters in the set of those used in the previous password

()There **should** be a character from the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.11.B.a] characters in the set of those used in the previous password

()There **should not** be a character from the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (not recommended)

BNF: Users should not create passwords with a character in the first [REF: 2.18.1.11.C.a] characters in the set of those used in the previous password

()There **must not** be a character from the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (prohibited)

BNF: Users must not create passwords with a character in the first [REF: 2.18.1.11.D.a] characters in the set of those used in the previous password

ID: 2.18.1.12

TITLE: ***Characters not used in the previous password***

TEXT:

NOTE: (select one)

DISPLAY\_WHEN: 2.18.1.L

DISPLAY\_WHERE:

()There **must** be a character **not used** in the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (required)

BNF: Users must create passwords with a character in the first [REF: 2.18.1.12.A.a] characters in the set of those not used in the previous password

()There **should** be a character **not used** in the previous password **within the first** [NUMERICAL\_FIELD]{min:1} **characters**. (recommended)

BNF: Users should create passwords with a character in the first [REF: 2.18.1.12.B.a] characters in the set of those not used in the previous password

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses using particular types of characters near the beginning of a password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.4 Password Character Combinations, Sequences, and Patterns

**Repeating, Recurring, Sequential and Unique Characters**

ID: 2.19

TITLE: ***Repeating Characters***

TEXT:

NOTE: (select the best answer, and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()A password **must not** have a single character that’s **repeated** [NUMERICAL\_FIELD]{min:1} **times in a row**. (prohibited)

BNF: Users must not create passwords in the set of strings with a character repeated [REF: 2.19.A.a] or more times consecutively

()A password **should not** have a single character that’s **repeated** [NUMERICAL\_FIELD]{min:1} **times in a row**. (not recommended)

BNF: Users should not create passwords in the set of strings with a character repeated [REF: 2.19.B.a] or more times consecutively

()Repeating characters (consecutive) are not mentioned in the policy.

ID: 2.20

TITLE: ***A Character Occurring Multiple Times***

TEXT:

NOTE: (select the best answer, and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()A password **must not** have a single character that **occurs** [NUMERICAL\_FIELD]{min:1} **times**. (prohibited)

BNF: Users must not create passwords in the set of strings with a character repeated [REF: 2.20.A.a] or more times

()A password **should not** have a single character that **occurs** [NUMERICAL\_FIELD]{min:1} **times**. (not recommended)

BNF: Users should not create passwords in the set of strings with a character repeated [REF: 2.20.B.a] or more times

()Using a single character multiple times is not mentioned in the policy.

ID: 2.21

TITLE: ***A Sequence of Characters***

TEXT:Examples of sequences are *12345* and *abcde*.

NOTE: (select the best answer, and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()A password **must not** include a **sequence of** [NUMERICAL\_FIELD]{min:1} **or more characters**. (prohibited)

BNF: Users must not create passwords in the set of strings with a run of [REF: 2.21.A.a] or more consecutive characters in sequence

()A password **should not** include a **sequence of** [NUMERICAL\_FIELD]{min:1} **or more characters**. (not recommended)

BNF: Users should not create passwords in the set of strings with a run of [REF: 2.21.B.a] or more consecutive characters in sequence

()Using character sequences is mentioned, but no sequence length is specified.

()Using character sequences is not mentioned in the policy.

ID: 2.22

TITLE: ***Unique Characters***

TEXT:“Unique” characters appear only once in a password.

NOTE: (select the best answer, and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()A password **must** include [NUMERICAL\_FIELD]{min:1} **or more unique characters**. (required)

BNF: Users must create passwords in the set of strings with at least [REF: 2.22.A.a] unique characters

()A password **should** include [NUMERICAL\_FIELD]{min:1} **or more unique characters**. (recommended)

BNF: Users should create passwords in the set of strings with at least [REF: 2.22.B.a] unique characters

()Using unique characters is not mentioned in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses the use of repeating, multiply occurring, sequential or unique characters.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Patterns of Letters or Numbers**

ID: 2.23

TITLE: ***Letter or Number Patterns***

TEXT:Examples of letter or number patterns are *QWERTY* and *44332211*.

NOTE: (select the best answer, and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()A password **must not** include letter or number patterns. (prohibited)

()A password **should not** include letter or number patterns. (not recommended)

()Letter or number patterns are not mentioned in the policy.

ID: 2.23.1

TITLE:

TEXT:The policy prohibits or recommends against using a letter or number pattern:

NOTE:

DISPLAY\_WHEN: 2.23.A or 2.23.B

DISPLAY\_WHERE:

()as the **entire password**.

BNF{2.23.A}: Users must not create passwords in the set of strings with word or number patterns (unspec)

BNF{2.23.B}: Users should not create passwords in the set of strings with word or number patterns (unspec)

()as **part of the password**.

BNF{2.23.A}: Users must not create passwords with a substring in the set of strings with word or number patterns (unspec)

BNF{2.23.B}: Users should not create passwords with a substring in the set of strings with word or number patterns (unspec)

()but does not distinguish between its use as either the entire password or part of the password.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses using letter or number patterns.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.5 Passwords Associated with a Person, Place or Date

**Person, Place or Date**

ID: 2.24

TITLE: ***User’s Account ID***

TEXT:The user’s account ID (associated with the password):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords equal to the user ID

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring equal to the user ID

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords equal to the user ID

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring equal to the user ID

()is not addressed in the policy.

ID: 2.25

TITLE: ***User’s Personal Name***

TEXT:The user’s personal name:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords equal to their name

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring equal to their name

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords equal to their name

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring equal to their name

()is not addressed in the policy.

ID: 2.26

TITLE: ***Personally Identifying Information (PII)***

TEXT: Personally identifying information (PII) (e.g., employee number, Social Security Number, etc.):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of personally identifying information

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of personally identifying information

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of personally identifying information

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of personally identifying information

()is not addressed in the policy.

ID: 2.27

TITLE: ***Addresses or Other Locations***

TEXT: Addresses or other locations (e.g., *123MainStreet*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of addresses or other locations

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of addresses or other locations

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of addresses or other locations

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of addresses or other locations

()are not addressed in the policy.

ID: 2.28

TITLE: ***Birthdays or Other Dates***

TEXT: Birthdays or other dates:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of birthdays or other dates

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of birthdays or other dates

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of birthdays or other dates

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of birthdays or other dates

()are not addressed in the policy.

ID: 2.29

TITLE: ***Proper Nouns***

TEXT: Proper nouns (e.g., Zimbabwe, Congress):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of proper nouns

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of proper nouns

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of proper nouns

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of proper nouns

()are not addressed in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses using names, dates, or locations in a password.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.6 Passwords Using “Dictionary Words”

The policy may make statements about using words likely to be found in a dictionary (i.e., "dictionary words"). The following questions ask about those statements, including whether the conditions apply to *an entire password* or *a part of the password*.

**Dictionary Words and Variants**

ID: 2.30

TITLE: ***Dictionary Words***

TEXT: Dictionary words (e.g., *giraffe*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words

()are not addressed in the policy.

ID: 2.31

TITLE: ***Dictionary Words Followed by a Number***

TEXT: Dictionary words followed by a number (e.g., *giraffe8*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words followed by a number

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words followed by a number

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words followed by a number

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words followed by a number

()are not addressed in the policy.

ID: 2.32

TITLE: ***Dictionary Words Spelled Backwards***

TEXT: Dictionary words spelled backwards (e.g., *effarig*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words in reverse

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words in reverse

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words in reverse

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words in reverse

()are not addressed in the policy.

ID: 2.33

TITLE: ***Dictionary Words with Numbers Replacing Some Letters***

TEXT: Dictionary words with numbers replacing some letters (e.g., *g1raff3*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words with numbers substituted for letters

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words with numbers substituted for letters

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words with numbers substituted for letters

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words with numbers substituted for letters

()are not addressed in the policy.

ID: 2.34

TITLE: ***Dictionary Words Preceded or Followed by a Number or Special Character***

TEXT: Dictionary words preceded or followed by a number or special character (e.g., *#giraffe3*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words preceded or followed by a number or special character (unspec)

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words preceded or followed by a number or special character (unspec)

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words preceded or followed by a number or special character (unspec)

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words preceded or followed by a number or special character (unspec)

()are not addressed in the policy.

ID: 2.35

TITLE: ***Dictionary Words with Numbers Replacing Some Letters***

TEXT: Dictionary words with numbers replacing some letters (e.g., *g1raff3*):

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of dictionary words with numbers substituted for letters

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of dictionary words with numbers substituted for letters

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of dictionary words with numbers substituted for letters

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of dictionary words with numbers substituted for letters

()are not addressed in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses using dictionary words or any variants of dictionary words.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

## 2.7 Password Re-Use and Modification

The policy may make statements about re-using or modifying existing passwords. The following questions ask about those statements, including whether the conditions apply to an *entire password* or *a part of the password*.

**Passwords from Other Systems**

ID: 2.36

TITLE: ***Passwords Used on an Outside System***

TEXT: Passwords used on **an outside system**:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of passwords to an outside system

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of passwords to an outside system

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of passwords to an outside system

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of passwords to an outside system

()are not addressed in the policy.

ID: 2.37

TITLE: ***Passwords from Any Other System***

TEXT: Passwords from **any other system**:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of passwords to any other system

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of passwords to any other system

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of passwords to any other system

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of passwords to any other system

()are not addressed in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses using passwords from other systems.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Existing, Default, and Previously-Used Passwords**

ID: 2.38

TITLE: ***Incremental Changes to Existing Passwords***

TEXT: Existing passwords that are modified by incremental changes (e.g., *C@ddy1 --> C@ddy2)*:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of incremental changes to existing passwords (unspec)

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of incremental changes to existing passwords (unspec)

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of incremental changes to existing passwords (unspec)

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of incremental changes to existing passwords (unspec)

()are not addressed in the policy.

ID: 2.39

TITLE: ***Default Passwords***

TEXT: Default passwords:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of vendor default passwords

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of vendor default passwords

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of vendor default passwords

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of vendor default passwords

()are not addressed in the policy.

ID: 2.40

TITLE: ***Recently-used Passwords***

TEXT: The policy may address the use of **recently-used passwords** (e.g., “any of the last 10 passwords”).

NOTE: (select the best answer and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()The last [NUMERICAL\_FIELD]{min:1} passwords **must not** be re-used as the new password. (prohibited)

BNF: Users must not create passwords in the set of their last [REF: 2.40.A.a] passwords

()The last [NUMERICAL\_FIELD]{min:1} passwords **must not** be re-used as **any part of** the new password. (prohibited)

BNF: Users must not create passwords with a substring in the set of their last [REF: 2.40.B.a] passwords

()The last [NUMERICAL\_FIELD]{min:1} passwords **should not** be re-used as the new password. (not recommended)

BNF: Users should not create passwords in the set of their last [REF: 2.40.C.a] passwords

()The last [NUMERICAL\_FIELD]{min:1} passwords **should not** be re-used as **any part of** the new password. (not recommended)

BNF: Users should not create passwords with a substring in the set of their last [REF: 2.40.D.a] passwords

()Recently-used passwords are not addressed in the policy.

ID: 2.41

TITLE: ***Passwords from Recent Years***

TEXT: The policy may address the use of **any password from recent years** (e.g., “passwords used during the last 2 years”).

NOTE: (select the best answer and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords used in the last [NUMERICAL\_FIELD]{min:1} years **must not** be re-used as the new password. (prohibited)

BNF: Users must not create passwords in the set of their last [REF: 2.41.A.a] years of passwords

()Passwords used in the last [NUMERICAL\_FIELD]{min:1} years **must not** be re-usedas **any part of** the new password. (prohibited)

BNF: Users must not create passwords with a substring in the set of their last [REF: 2.41.B.a] years of passwords

()Passwords used in the last [NUMERICAL\_FIELD]{min:1} years **should not** be re-used as the new password. (not recommended)

BNF: Users should not create passwords in the set of their last [REF: 2.41.C.a] years of passwords

()Passwords used in the last [NUMERICAL\_FIELD]{min:1} years **should not** be re-used as **any part of** the new password. (not recommended)

BNF: Users should not create passwords with a substring in the set of their last [REF: 2.41.D.a] years of passwords

()The use of passwords from recent years is not addressed in the policy.

ID: 2.42

TITLE: ***Frequently-used Passwords***

TEXT: The policy may address the use of **frequently-used passwords** (e.g., “passwords used 2 times in the last 3 years”).

NOTE: (select the best answer and enter a number)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords used [NUMERICAL\_FIELD]{min:1} times in the last [NUMERICAL\_FIELD]{min:1} years **must not** be re-used as the new password. (prohibited)

BNF: Users must not create passwords in the set of those passwords used [REF: 2.42.A.a] times in the last [REF: 2.42.A.b] years

()Passwords used [NUMERICAL\_FIELD]{min:1} times in the last [NUMERICAL\_FIELD]{min:1} years **must not** be re-usedas **any part of** the new password. (prohibited)

BNF: Users must not create passwords with a substring in the set of those passwords used [REF: 2.42.B.a] times in the last [REF: 2.42.B.b] years

()Passwords used [NUMERICAL\_FIELD]{min:1} times in the last [NUMERICAL\_FIELD]{min:1} years **should not** be re-used as the new password. (not recommended)

BNF: Users should not create passwords in the set of those passwords used [REF: 2.42.C.a] times in the last [REF: 2.42.C.b] years

()Passwords used [NUMERICAL\_FIELD]{min:1} times in the last [NUMERICAL\_FIELD]{min:1} years **should not** be re-used as **any part of** the new password. (not recommended)

BNF: Users should not create passwords with a substring in the set of those passwords used [REF: 2.42.D.a] times in the last [REF: 2.42.D.b] years

()Frequently-used passwords are not addressed in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses the use of incrementally-modified, default, or recently/frequently-used passwords.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Variations of Prohibited Passwords**

If the policy prohibits using certain passwords, it might also address using *variants* of those prohibited passwords. The following questions ask about those statements, including whether the conditions apply to an *entire password* or *a part of the password*.

ID: 2.43

TITLE: ***Concatenating Prohibited Passwords***

TEXT: Prohibited passwords concatenated together (e.g., *ZebraGiraffe)*:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of otherwise forbidden content concatenated

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of otherwise forbidden content concatenated

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of otherwise forbidden content concatenated

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of otherwise forbidden content concatenated

()are not addressed in the policy.

ID: 2.44

TITLE: ***Reversing Prohibited Passwords***

TEXT: Prohibited passwords **in reverse** (e.g., *teertSniaM321)*:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of otherwise forbidden content in reverse

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of otherwise forbidden content in reverse

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of otherwise forbidden content in reverse

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of otherwise forbidden content in reverse

()are not addressed in the policy.

ID: 2.45

TITLE: ***Prohibited Passwords Preceded or Followed by a Number***

TEXT: Prohibited passwords that are **preceded or followed by a number** (e.g., *4Zimbabwe)*:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**must not** be used as the password. (prohibited)

BNF: Users must not create passwords in the set of otherwise forbidden content preceded or followed by a number

()**must not** be **any part of** the password. (prohibited)

BNF: Users must not create passwords with a substring in the set of otherwise forbidden content preceded or followed by a number

()**should not** be used as the password. (not recommended)

BNF: Users should not create passwords in the set of otherwise forbidden content preceded or followed by a number

()**should not** be **any part of** the password. (not recommended)

BNF: Users should not create passwords with a substring in the set of otherwise forbidden content preceded or followed by a number

()are not addressed in the policy.

COMMENT: I am having problems with these questions:

()I can’t tell if this policy addresses using variations of otherwise prohibited passwords.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

# 3. Storing Passwords

A policy may state where users can or cannot store or record passwords in written or printed form (i.e., hardcopy) or in electronic form (e.g., in a computer file, database, online, etc.).

**Written/Print Storage**

ID: 3.1

TITLE: Storing Passwords Anywhere

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be stored **anywhere** in **written or print form**. (prohibited)

BNF: Users must not store passwords in writing anywhere

()Passwords **should not** be stored **anywhere** in **written or print form**. (not recommended)

BNF: Users should not store passwords in writing anywhere

()Not addressed in the policy.

ID: 3.2

TITLE: Storing Passwords In an Unsecure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Written/printed** passwords **must not** be stored **in a location that is NOT secure**. (prohibited)

BNF: Users must not store passwords in writing in an unsecure location

()**Written/printed** passwords **should not** be stored **in a location that is NOT secure**. (not recommended)

BNF: Users should not store passwords in writing in an unsecure location

()Not addressed in the policy.

ID: 3.3

TITLE: Storing Passwords in Plain Text (Undisguised)

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Written/printed** passwords **must not** be stored **in plain text** (undisguised). (prohibited)

BNF: Users must not store passwords in writing in clear text or weakly encrypted

()**Written/printed** passwords **should not** be stored **in plain text** (undisguised). (not recommended)

BNF: Users should not store passwords in writing in clear text or weakly encrypted

()Not addressed in the policy.

ID: 3.4

TITLE: Storing Passwords in Plain Text in an Unsecure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Written/printed** passwords **must not** be stored **in plain text** (undisguised) **in a location that is NOT secure**. (prohibited)

BNF: Users must not store passwords in writing in clear text in an unsecure location

()**Written/printed** passwords **should not** be stored **in plain text** (undisguised) **in a location that is NOT secure**. (not recommended)

BNF: Users should not store passwords in writing in clear text in an unsecure location

()Not addressed in the policy.

ID: 3.5

TITLE: Storing Passwords in a Secure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Written/printed** passwords **must** be stored **in a secure location**. (required)

BNF: Users must store passwords in writing in a secure location

()**Written/printed** passwords **should** be stored **in a secure location**. (recommended)

BNF: Users should not store passwords in writing in a secure location

()Not addressed in the policy.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses storing passwords in writing (printed).

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Digital/Online Storage**

Policies may address the storage of passwords in electronic form (e.g., on computers, on flash drives, in applications, on networks, etc.) for the following locations.

ID: 3.6

TITLE: Storing Passwords Anywhere

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Passwords **must not** be **digitally** stored **anywhere**. (prohibited)

BNF: Users must not store passwords online anywhere

()Passwords **should not** be **digitally** stored **anywhere**. (not recommended)

BNF: Users should not store passwords online anywhere

()Not addressed in the policy.

ID: 3.7

TITLE: Storing Passwords In an Unsecure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must not** be stored **in a location that is NOT secure**. (prohibited)

BNF: Users must not store passwords online in an unsecure location

()**Digital** passwords **should not** be stored **in a location that is NOT secure**. (not recommended)

BNF: Users should not store passwords online in an unsecure location

()Not addressed in the policy.

ID: 3.8

TITLE: Storing Passwords in a Secure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must** be stored **in a secure location**. (required)

BNF: Users must store passwords online in a secure location

()**Digital** passwords **should** be stored **in a secure location**. (recommended)

BNF: Users should not store passwords online in a secure location

()Not addressed in the policy.

ID: 3.9

TITLE: Storing in Passwords in Automated Scripts

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must not** be stored **in automated scripts**. (prohibited)

BNF: Users must not store passwords online in automated scripts

()**Digital** passwords **should not** be stored **in automated scripts**. (not recommended)

BNF: Users should not store passwords online in automated scripts

()Not addressed in the policy.

ID: 3.10

TITLE: Storing Passwords in Plain Text or Weakly Encrypted

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must not** be stored **in plain text** (unencrypted) **or weakly encrypted**. (prohibited)

BNF: Users must not store passwords online in clear text or weakly encrypted

()**Digital** passwords **should not** be stored **in plain text** (unencrypted) **or weakly encrypted**. (not recommended)

BNF: Users should not store passwords online in clear text or weakly encrypted

()Not addressed in the policy.

ID: 3.11

TITLE: Storing Passwords in Plain Text (Unencrypted) in an Unsecure Location

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must not** be stored **in plain text** (unencrypted) **in a location that is NOT secure**. (prohibited)

BNF: Users must not store passwords online in clear text in an unsecure location

()**Digital** passwords **should not** be stored **in plain text** (unencrypted) **in a location that is NOT secure**. (not recommended)

BNF: Users should not store passwords online in clear text in an unsecure location

()Not addressed in the policy.

ID: 3.12

TITLE: Storing Passwords on an Outside System

TEXT:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()**Digital** passwords **must not** be stored **on an outside system**. (prohibited)

BNF: Users must not store passwords online on outside systems

()**Digital** passwords **should not** be stored **on an outside system**. (not recommended)

BNF: Users should not store passwords online on outside systems

()Not addressed in the policy.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses storing passwords in digitally/online.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

# 4. Changing Passwords

The password policy may tell users *when* and *under what conditions* (e.g., time period or an event) they must change their passwords.

**Timeline for changing passwords**

ID: 4.1

TITLE:

TEXT: Does the policy identify *when* passwords must be changed?

NOTE:

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()Yes

()No

ID: 4.1.1

TITLE: Changing Passwords Within # Days

TEXT:

NOTE: (select the best answer, including the number of days)

DISPLAY\_WHEN: 4.1.A

DISPLAY\_WHERE:

()Passwords **must** be changed within [NUMERICAL\_FIELD]{min:1} days. (required)

BNF: Users must change passwords before [REF: 4.1.1.A.a] days

()Passwords **should** be changed within [NUMERICAL\_FIELD]{min:1} days. (recommended)

BNF: Users should change passwords before [REF: 4.1.1.B.a] days

()Passwords **should not** be changed within [NUMERICAL\_FIELD]{min:1} days. (not recommended)

BNF: Users should not change passwords before [REF: 4.1.1.C.a] days

()Passwords **must not** be changed within [NUMERICAL\_FIELD]{min:1} days. (prohibited)

BNF: Users must not change passwords before [REF: 4.1.1.D.a] days

()The policy does not address changing passwords within a particular number of days.

ID: 4.1.2

TITLE: Changing Passwords Immediately

TEXT: A policy may mention the immediate changing of a password (e.g., after a temporary password has been issued).

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.1.A

DISPLAY\_WHERE:

()Passwords **must** be changed **immediately** (required)

BNF: Users must change passwords immediately

()Passwords **should** be changed **immediately** (recommended)

BNF: Users should change passwords immediately

()Passwords **should not** be changed **immediately** (not recommended)

BNF: Users should not change passwords immediately

()Passwords **must not** be changed **immediately** (prohibited)

BNF: Users must not change passwords immediately

()The policy does not address changing passwords immediately.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses changing passwords within a specific period of time.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Conditions for changing passwords**

ID: 4.2

TITLE: When a Password is Compromised

TEXT: If a password is compromised,

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()the password **must** be changed. (required)

()the password **should** be changed. (recommended)

()The policy does not mention changing passwords that have been compromised.

ID: 4.2.1

TITLE:

TEXT: This password change must/should happen:

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.2.A or 4.2.B

DISPLAY\_WHERE:

()immediately.

BNF {4.2.A}: Users must change passwords immediately if compromised

BNF {4.2.B}: Users should change passwords immediately if compromised

()within 1 day.

BNF {4.2.A}: Users must change passwords before 1 day if compromised

BNF {4.2.B}: Users should change passwords before 1 day if compromised

()within [NUMERICAL\_FIELD]{min:2} days.

BNF {4.2.A}: Users must change passwords before [REF: 4.2.1.C.a] days if compromised

BNF {4.2.B}: Users should change passwords before [REF: 4.2.1.C.a] days if compromised

ID: 4.3

TITLE: When a Password is Found to be Non-Compliant with the Policy

TEXT: If a password is found to be non-compliant,

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()the password **must** be changed. (required)

()the password **should** be changed. (recommended)

()The policy does not mention changing a password found to be non-compliant.

ID: 4.3.1

TITLE:

TEXT: This password change must/should happen:

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.3.A or 4.3.B

DISPLAY\_WHERE:

()immediately.

BNF {4.3.A}: Users must change passwords immediately if found non-compliant

BNF {4.3.B}: Users should change passwords immediately if found non-compliant

()within 1 day.

BNF {4.3.A}: Users must change passwords before 1 day if found non-compliant

BNF {4.3.B}: Users should change passwords before 1 day if found non-compliant

()within [NUMERICAL\_FIELD]{min:2} days.

BNF {4.3.A}: Users must change passwords before [REF: 4.3.1.C.a] days if found non-compliant

BNF {4.3.B}: Users should change passwords before [REF: 4.3.1.C.a] days if found non-compliant

ID: 4.4

TITLE: When a Password is Sent Unencrypted

TEXT: If a password is sent unencrypted,

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()the password **must** be changed. (required)

()the password **should** be changed. (recommended)

()The policy does not mention changing a password that was sent unencrypted.

ID: 4.4.1

TITLE:

TEXT: This password change must/should happen:

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.4.A or 4.4.B

DISPLAY\_WHERE:

()immediately.

BNF {4.4.A}: Users must change passwords immediately if sent unencrypted

BNF {4.4.B}: Users should change passwords immediately if sent unencrypted

()within 1 day.

BNF {4.4.A}: Users must change passwords before 1 day if sent unencrypted

BNF {4.4.B}: Users should change passwords before 1 day if sent unencrypted

()within [NUMERICAL\_FIELD]{min:2} days.

BNF {4.4.A}: Users must change passwords before [REF: 4.4.1.C.a] days if sent unencrypted

BNF {4.4.B}: Users should change passwords before [REF: 4.4.1.C.a] days if sent unencrypted

ID: 4.5

TITLE: When a Password is Shared with Someone

TEXT: If a password is shared with someone,

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()the password **must** be changed. (required)

()the password **should** be changed. (recommended)

()The policy does not mention changing a password that is shared.

ID: 4.5.1

TITLE:

TEXT: This password change must/should happen:

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.5.A or 4.5.B

DISPLAY\_WHERE:

()immediately.

BNF {4.5.A}: Users must change passwords immediately if shared

BNF {4.5.B}: Users should change passwords immediately if shared

()within 1 day.

BNF {4.5.A}: Users must change passwords before 1 day if shared

BNF {4.5.B}: Users should change passwords before 1 day if shared

()within [NUMERICAL\_FIELD] days.

BNF {4.5.A}: Users must change passwords before [REF: 4.5.1.C.a] days if shared

BNF {4.5.B}: Users should change passwords before [REF: 4.5.1.C.a] days if shared

ID: 4.6

TITLE: When Directed by Management

TEXT: If directed by management,

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()users **must** change passwords. (required)

()users **should** change passwords. (recommended)

()The policy does not mention password changes that are directed by management.

ID: 4.6.1

TITLE:

TEXT: This password change must/should happen:

NOTE: (select the best answer)

DISPLAY\_WHEN: 4.6.A or 4.6.B

DISPLAY\_WHERE:

()immediately.

BNF {4.6.A}: Users must change passwords immediately if directed by management

BNF {4.6.B}: Users should change passwords immediately if directed by management

()within 1 day.

BNF {4.6.A}: Users must change passwords before 1 day if directed by management

BNF {4.6.B}: Users should change passwords before 1 day if directed by management

()within [NUMERICAL\_FIELD] days.

BNF {4.6.A}: Users must change passwords before [REF: 4.6.1.C.a] days if directed by management

BNF {4.6.B}: Users should change passwords before [REF: 4.6.1.C.a] days if directed by management

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses any conditions that trigger a password change.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

# 5. Authentication Failure

The policy may describe consequences for entering incorrect passwords during login attempts.

**Incorrect Password Entry**

ID: 5.1

TITLE: Incorrect Password Entry:

TEXT: A user will be locked out after entering:

NOTE: (select the best answer)

DISPLAY\_WHEN:

DISPLAY\_WHERE:

()[NUMERICAL\_FIELD]{min:1} incorrect passwords.

()[NUMERICAL\_FIELD]{min:1} incorrect passwords in [NUMERICAL\_FIELD]{min:1} [|second(s) | minute(s) | hour(s) |].

()The policy does not specify the number of incorrect passwords that trigger a lockout.

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses incorrect password entry.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]

**Lockout Duration and Recovery**

ID: 5.2

TITLE: Lockout Duration and Recovery

TEXT: When a user is locked out after entering incorrect passwords:

NOTE: (select the best answer)

DISPLAY\_WHEN: 5.1.A or 5.1.B

DISPLAY\_WHERE:

()the lockout lasts for an unspecified period of time.

BNF {5.1.A}: Users must not fail to authenticate [REF: 5.1.A.a] times to avoid a lockout of unspecified duration

BNF {5.1.B}: Users must not fail to authenticate [REF: 5.1.B.a] times in a [REF: 5.1.B.b] [REF: 5.1.B.c] interval to avoid a lockout of unspecified duration

()the lockout lasts for [NUMERICAL\_FIELD]{min:1} [|second(s) | minute(s) | hour(s)|].

BNF {5.1.A}: Users must not fail to authenticate [REF: 5.1.A.a] times to avoid a [REF: 5.2.B.a] [REF: 5.2.B.b] lockout

BNF {5.1.B}: Users must not fail to authenticate [REF: 5.1.B.a] times in a [REF: 5.1.B.b] [REF: 5.1.B.c] interval to avoid a [REF: 5.2.B.a] [REF: 5.2.B.b] lockout

()an administrator must unlock the account.

BNF {5.1.A}: Users must not fail to authenticate [REF: 5.1.A.a] times to avoid administrative unlock

BNF {5.1.B}: Users must not fail to authenticate [REF: 5.1.B.a] times in a [REF: 5.1.B.b] [REF: 5.1.B.c] interval to avoid administrative unlock

()*either* an administrator must unlock the account *OR* the lockout lasts for [NUMERICAL\_FIELD]{min:1} [|second(s) | minute(s) | hour(s)|].

BNF {5.1.A}: Users must not fail to authenticate [REF: 5.1.A.a] times to avoid administrative unlock or a [REF: 5.2.D.a] [REF: 5.2.D.b] lockout

BNF {5.1.B}: Users must not fail to authenticate [REF: 5.1.B.a] times in a [REF: 5.1.B.b] [REF: 5.1.B.c] interval to avoid administrative unlock or a [REF: 5.2.D.a] [REF: 5.2.D.b] lockout

COMMENT: I am having problems with this question:

()I can’t tell if this policy addresses lockout duration and/or recovery.

()The choices above don’t let me identify what’s in the policy. (Please explain): [BIG\_TEXT\_FIELD]