University of Toronto, Department of Electrical and Computer Engineering
ECE 1724-F1 — Performant Software Systems with Rust

Quiz 2 — Multiple Choice Questions

Wednesday, September 30, 2026

Instructions: Choose exactly one answer per question. Unless a complete program is shown, assume the code is inside `fn main()`.

1. What does this code print?

```
let original = String::from("teal");
let saved = original.clone();
let mut current = original;
current.push('!');
println!("{saved} {current}");
```

Ⓐ `teal! teal!`
Ⓑ `teal teal!`
Ⓒ It does not compile.
Ⓓ `teal teal`

2. What does this complete program print?

```
fn extend(text: &mut String) {
    text.push_str(" now");
}
fn main() {
    let mut message = String::from("go");
    extend(&mut message);
    println!("{message}");
}
```

Ⓐ `go`
Ⓑ It does not compile.
Ⓒ It compiles but panics.
Ⓓ `go now`

3. Why does this code fail to compile?

```
let mut text = String::from("map");
let view = &text;
text.push('s');
println!("{view}");
```

Ⓐ Mutation conflicts with the later use of `view`.
Ⓑ `push` requires a string slice.
Ⓒ `view` takes ownership of `text`.
Ⓓ `println!` cannot print a reference.

4. What happens when this code is compiled and run?

```
let mut text = String::from("cat dog");
let word = &text[..3];
println!("{word}");
text.clear();
println!("{}", text.len());
```

Ⓐ It does not compile.
Ⓑ It prints `cat`, then panics.
Ⓒ It prints `cat`, then `0`, on separate lines.
Ⓓ It prints `cat`, then `7`, on separate lines.

5. What happens when this code is compiled and run?

```
let text = String::from("rust");
let first = text[0];
println!("{first}");
```

Ⓐ It prints `r`.
Ⓑ It does not compile.
Ⓒ It prints `114`, the first byte's value.
Ⓓ It compiles but panics.