١) What is the Rust programming language?

٢) Briefly explain the features of the Rust language?

٣) In which areas is the Rust language more useful?

٤) What is the difference between the Rust language and the C and C++ languages?

٥) Explain the limitations of the Rust language?

٦) Explain the Cargo tool?

٧) What is the function of the Cargo.lock file?

٨) Explain the RustRover IDE?

٩) Name a few programs written in the Rust language?

١٠) Briefly explain the capabilities of the Rust language in Concurrency and Parallelism and give examples?

١١) Explain the possibility of programming the Rust language for Microcontrollers and Robots?

١٢) Explain the use and concept of Crate in the Rust language?

١٣) Explain the difference between the concepts of Iterator and Generator in the Rust language with examples?

١٤) What is Monomorphization in the Rust language?

١٥)

١٦) Explain the concept of Ownership in the Rust language?

١٧) Explain the Borrowing feature in Rust with an example?

١٨) Explain the types of Type Inference in Rust with an example?

١٩) Explain the concept of Smart Pointer in Rust?

٢٠) What is the Trait structure? Explain with an example?

٢١) What is Closure? Explain with an example?

٢٢) Explain how Rust deals with unsafe code? Explain with an example?

٢٣) Explain the use of Rust programming language in Smart Contracts?

٢٤) Explain the use of Rust programming language in Blockchain?

٢٥) Explain the use of Rust programming language in Artificial Intelligence?

٢٦) Name the test writing tools in Rust and explain their differences?

٢٧) Name the web programming tools in Rust and explain their differences?

٢٨) Explain the error handling mechanism in Rust with an example?

٢٩) Explain the capabilities of Rust in Functional Programming with an example?

٣٠) Is Object Oriented Programming possible in Rust? Explain with an example?

٣١) Name the Machine Learning libraries in Rust? Write a simple example?

٣٢) Explain Multi-Threading programming in Rust with a simple example?

٣٣) Explain Parallel Programming in Rust with a simple example?

٣٤) Explain the concept of Meta Programming (Profiling, Reflection) in Rust with a simple example?

٣٥) What is Rust's solution to Memory Safety problems? Explain with a simple example?

Use after free	Memory leaks	Null pointers
Double free	Buffer overreads/overwrites	Data races

١٩) Explain the function of the following libraries by giving a simple example?

Serde	Time	Digest	Geo
Lazy_static	Url	Signature	Hound
Thiserror	Reqwest	Openssl	Rustls
Itertools	Anyhow	Chrono	Ring

٢٠) Explain the possibility of calling other languages' codes in Rust?

٢١) Explain the possibility of calling Rust code in languages like Java, C#, C and Python?

٢٢) What is Lazy Loading? Explain with an example in Rust?

٢٣) Explain Asynchronous Programming in Rust with an example?

٢٤) Implement Binary Search Tree data structure in Rust?

٢٥) Implement AVL Tree data structure in Rust?

٢٦) Implement Max heap-Tree data structure in Rust?

٢٧) Write a RESTful API service to process JSON requests?

٢٨) Write a simple service to process requests based on gRPC protocol?

۲۹) Write a simple service to process requests based on Web Assembly?

۳۰) Explain Socket Programming in Rust with an example?

۳۱) Write a program in Rust that performs CRUD operations on a database?

۳۲) Write a program using an ORM in Rust to perform CRUD operations on a database?

۳۳) Name the Parsing libraries in Rust? And explain the function of a Parser with an example?

۳۴) What is the concept of Regular Expression? Explain in Rust with an example?

۳۵) What is the function of the SysInfo library in Rust? Explain with a simple example?

۳۶) What is the function of the native-windows-gui and Windwos libraries in Rust? Explain with a simple example?

۳۷) Write a program to perform a simple process on an Image?

۳۸) Write a program to perform a simple process on an Audio?

۳۹) Write a program to perform a simple process on a Video?

۴۰) Write a program to download a file from the Internet?

۴۱) Write a program to read and write a simple CSV file?

۴۲) Write a program to read and write a simple Excel file?

۴۳) Implement the MVC model in an application?

۴۴) Implement Clean Architecture in an application?

۴۵) Implement SOLID principles in Rust?

https://lib.rs

https://www.turing.com/interview-questions/rust

https://github.com/rust-unofficial/awesome-rust