Week 1

1. How are service robots different from mobile robots?

Service robots work in non-factory applications in homes, hospitals, etc. whereas mobile robots work in warehouses, cleaning the floor, etc.

1. The newer classification of robots that interact with people are called?

Collaborative robots

1. Out of the three levels of safety pyramid, which is the most effective?

Elimination (physically remove the hazard)

1. Why is safety critical in a collaborative operation?

In a collaborative application, an operator and robot share the same workspace. Since a robot and a human being work in such proximity, control the force, speed, and path of the robot.

1. Identify the standard or technical report which provides safety requirements for collaborative robots and applications.

RIA TR R15.606-2016

1. What does the clause 6 of RIA TR R15.606-2016 represent?

Verification and validation requirements for the design and applications

1. Calculate the risk level for the following: Severity (S2), Exposure (E2), and Avoidance (A3).

Low

1. An injury severity rating of S2 represents the following:

Normally reversible incident

1. What is the risk level of a control system with performance level d with structure 2?

Medium

10 . Identify the oldest class of robots.

Industrial Robot