Question 1

1- Identify which services is running on this port and get information about it .

2- Ensure that the services running on this port are secured with strong authentication .

3- Implement firewall and limit access on open ports .

4- Close unused ports .

Question 2

1- Use testing tools to scan weaknesses and vulnerabilities of the web application .

2- Validate users inputs and ensure that only expected data type is entered .

3- Encode the data before display it .

4- Use web application firewall (WAF) which help detect and block XXS attacks.

Question 3

Imagine a situation where we find a backdoor in on of the servers , First of all we will isolate this server from the network to prevent data being compromised then make investigation about how this backdoor was implemented and identify any other vulnerabilities , After that remove the backdoor and any associated malware from the server , Finally we will implement additional security measures and restrict access .