

2.	<p>Assume the following scenario: Data: 1101011011 ; Generator Polynomial: 10011. An error occurs in the transmission at positions 3, 7, and 10 (counting from the left, starting from 1). Then find the following:</p> <ul style="list-style-type: none"> <li>A. The CRC codeword.</li> <li>B. The received codeword after errors are introduced.</li> <li>C. Whether the error is detectable using the given generator polynomial. ✓</li> </ul> <p>Give justification for your answer.</p>	4	CO1, CO4
3.	<p>You are a network administrator tasked with diagnosing a network issue. During your analysis, you come across the following situations involving various network components and tasks. Your task is to identify the OSI layer primarily responsible for each scenario and briefly explain why.</p> <p><b>Situation 1:</b> A user reports that they are unable to access a website using its domain name, but they can access it using the IP address directly.</p> <p><b>Situation 2:</b> A network switch is managing the flow of data between devices on the same local network but is failing to direct the traffic correctly.</p> <p><b>Situation 3:</b> A large file transfer between two servers on different networks fails halfway through. You suspect an issue with how the data is being segmented and reassembled.</p>	4	CO1