1. Elucidate the six approaches to green computing with relevant example for each approach. (10 Marks)

Ans 1.

Introduction

Green computing, also known as green IT, is the practice of designing, using, and disposing of computers, servers, and associated systems in an environmentally sustainable manner. The primary goals of green computing are to reduce energy consumption, minimize waste, and improve the overall efficiency of computing systems. With the increasing reliance on technology, the environmental impact of IT infrastructure has grown significantly, making green computing a crucial consideration for businesses and individuals alike. The approaches to green computing encompass a range of strategies aimed at reducing the carbon footprint of IT systems, from designing energy-efficient hardware to adopting practices that minimize electronic waste. In this discussion, we will explore six key approaches to green computing, each accompanied by relevant

2. How is Capacity Management and Availability Management alike or different in terms of the Service Design Processes? (10 Marks)

Ans 2.

Introduction

Capacity Management and Availability Management are integral components of IT Service Management (ITSM) frameworks, such as ITIL (Information Technology Infrastructure Library). These processes are crucial for ensuring that IT services are delivered efficiently and

reliably, aligning with business needs and expectations. While both focus on optimizing IT services, they have distinct objectives and methodologies. Capacity Management aims to ensure that the IT infrastructure can meet current and future business demands without over- or under-utilization of resources. On

3. A server farm serves several purposes in the industry. Based on your clients' requirements explain in depth with relevant examples how each of the following works in real time:

a. The server farm that is set up for compilation of computer programs remotely. (5 Marks)

Ans 3a.

Introduction

Server farms, also known as data centers, are critical infrastructure for businesses, providing centralized resources and services. They consist of numerous servers that can perform a variety of tasks, including the remote compilation of computer programs. This setup is particularly useful for software development teams, allowing them to compile and test code efficiently. In this response, we will explore how server farms are utilized for remote program compilation, highlighting the key components and

b. The server farm that helps rendering computer generated images that provide visual effects in films and television.   (5 Marks)

Ans 3b.

Introduction

Server farms, or render farms, are essential in the entertainment industry for creating high-quality visual effects (VFX) in films and television. These farms consist of numerous servers that work together to render computer-generated imagery (CGI), a process that requires

substantial computational power. The use of server farms allows studios to produce complex visuals efficiently, meeting the