Task 1

Figure 1 demonstrates the milk production process. This process involves nine crucial stages that ensure the milk consumed is safe for human consumption. Cows graze and feed on grass in the first stage, and in the second stage, they are milked twice daily using machines. The milk is then transported to refrigerated storage tanks using pipes in the third stage and shipped to dairies for processing and pasteurization in the fourth stage. After pasteurization, the milk is stored in large tanks in the fifth stage and undergoes pasteurization again in the sixth stage to kill harmful bacteria and microorganisms. In the seventh and eighth stages, the pasteurized milk is packaged and shipped to shops and supermarkets for human consumption. Finally, milk is used to make other dairy products like butter, cheese, and cream in the ninth stage. The milk production process is complex and requires careful attention at every stage to ensure the final product is safe for human consumption.

(161 words)

Task 2

As the transition towards sustainable modes of transportation gains momentum, the recycling of primary power sources such as lithium-ion batteries has emerged as a critical concern. Notwithstanding their chemical complexity, companies and governments are actively working towards devising efficient recycling and reuse mechanisms for these batteries. This essay argues that, despite the challenges, lithium-ion batteries can be considered sustainable technology, given the increasing efforts to facilitate their recycling and reuse.

The use of lithium batteries in electric vehicles has raised concerns about the mining of lithium, which is mainly concentrated in South America. Political instability and natural disasters can disrupt the supply chain, while the mining process can cause significant environmental hazards due to the release of toxic dust and hazardous chemicals. Countries like Russia and Columbia have experienced adverse environmental consequences from the mining process. With the rising demand for lithium due to the increase in electric vehicles, these issues become more pressing.

However, governments and corporations have taken proactive measures to address the environmental risks associated with lithium mining and promote the sustainability of lithium batteries. The European Union, for instance, has enforced regulations mandating producers to assume responsibility for reducing the environmental impact of batteries. In addition, companies such as Nissan has implemented programs that repurposes used batteries. Recycling is also an increasingly crucial component of the solution to the challenges posed by lithium mining and sourcing. Recycling lithium batteries is anticipated to emerge as one of the primary sources of lithium in the future, helping prevent a sudden increase in car prices. Furthermore, emerging technologies can enhance the energy efficiency of the recycling process, allowing batteries to be restored to their initial state.

In conclusion, despite challenges with mining, meeting global demand, and recycling of lithium batteries, companies and governments are taking steps to make them more environmentally friendly. Ensuring the sustainability of lithium batteries is critical for the future of electric vehicles. To achieve this, companies and governments should invest in research and development to find new and innovative ways to recycle and reuse lithium-ion batteries, creating a more sustainable future for electric vehicles while reducing their environmental impact.

(354 words)