Daffodil International University
Faculty of Science & Information Technology
Department of Software Engineering
Course Code: SE411, Course Title: Software Project Management & Documentation

Quiz 2: Section: 44_I Time: 25 Minutes

SmartEdu Technologies has received a contract to develop an AI-powered online learning platform for schools within eight months. At the beginning of the project, the project manager identifies the required human resources, including project coordinators, software engineers, UI/UX designers, quality assurance (QA) engineers, and database administrators. The company also arranges material resources such as high-performance computers, cloud storage, project management software, testing devices, and high-speed internet.

To improve employee performance and engagement, the company introduces performance-based bonuses, flexible working hours, and technical certification programs.

During project execution, SmartEdu realizes that it does not have sufficient expertise in Artificial Intelligence (AI) model development and penetration testing. Instead of hiring new employees, the company decides to outsource these specialized services to an external vendor. The procurement team prepares a Statement of Work (SOW) describing the project requirements and issues a Request for Proposal (RFP) to several qualified vendors. After comparing proposals based on price, technical expertise, previous experience, quality assurance, and project schedule, the company awards the contract to the best-qualified vendor and signs a Fixed-Price Incentive Fee (FPIF) contract to encourage timely delivery and high-quality performance.

Questions

1. Identify two human resources and two material resources mentioned in the scenario. Explain why each resource is important for successful project completion. (5 Marks)

2. Why did SmartEdu decide to outsource AI model development and penetration testing instead of performing these activities internally? Explain the purpose of the Statement of Work (SOW) and the Request for Proposal (RFP) in this procurement process. (5 Marks)

3. The company selected a Fixed-Price Incentive Fee (FPIF) contract.

a) Explain why the FPIF contract is suitable for this project. (2 Marks)

b) Identify two procurement risks that SmartEdu may face during the project and recommend one mitigation strategy for each risk. (3 Marks)