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|  | **BAHRIA UNIVERSITY, (Karachi Campus)**  *Department of Software Engineering*  **Assignment 3 - Spring 2022** |  |



COURSE TITLE: Engineering Management COURSE CODE: **MGT-423**

Class: **BSE-IV (B)** Shift: **Morning**

Course Instructor: **Engr. Talha Bin Saeed** Time Allowed:  **1 Week**

Submission Date: **08/06/2022** Max. Marks:05

**Name: Abdul Quddos Enrollment No: 02-131202-033**

**[CLO4: 5 Marks]**

**QUESTION #01**

Evaluate the R&D process that is required to develop a better product?

**Answer:**

**Evaluation of R&D process that is required to develop a better product:**

**Making R&D Organizations Successful:**

Three topics are treated herein: the relation of R&D strategy to business strategy, evaluating the effectiveness of R&D (both at the organizational and individual levels), and providing effective support for researchers.

**R&D and Business Strategy:**

In the technology-driven organization, a carefully planned technology strategy must be thought through to support the overall strategy of the enterprise. This strategy should encompass research, product and process development, and manufacturing engineering. Erickson et al. identify three broad classes of technologies a typical firm must consider:

* **Base technologies:** These are the technologies that a firm must master to be an effective competitor in its chosen product-market mix. They are necessary, but not sufficient. ...The trick for R&D management is to invest enough—but only enough—to maintain competence in these technologies.
* **Key technologies:** These technologies provide competitive advantage. They may permit the producer to embed differentiating features or functions in the product or to attain greater efficiencies in the production process.
* **Pacing technologies:** These technologies could become tomorrow’s key technologies. Not every participant in an industry can afford to invest in pacing technologies; this is typically what differentiates the leaders (who do) from the followers (who do not). The critical issue in technology management is balancing support of key technologies to sustain current competitive position and support of pacing technologies to create future vitality.