

Reg. No. _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
FIFTH TRIMESTER MBA DEGREE EXAMINATION JANUARY 2019

OM-T5-9 TECHNOLOGY MANAGEMENT

Max. Marks: 60

Duration: 3 Hours

Part A

Answer all questions. Each question carries 2 marks

1. Mention any four constraints in technology absorption.
2. Discuss on the term technology acquisition with two examples.
3. List four importance of R&D in technology transfer.
4. Mention any four differences between Technology adoption and Technology diffusion.
5. Discuss on any four environmental issues due to technology change.

Part B

Answer any 3 questions. Each question carries 10 marks

6. What are the consequences when an existing technology gets diffused? What could be the various technology forecasting methods that can be adopted?
7. Briefly discuss on the term technology transfer. Suggest few modes of technology transfer that can be adopted.
8. Identify the technology used in present mobile phones and give the life cycle of the technology.
9. Explain in detail the how competitive advantage can be created using value chain.
10. What do you mean by the term process technology? Explain its types.

Part C

Compulsory question, the question carries 20 marks

11. Most technological changes can be described as a substitution of one material, process or product for another. Each such substitution, if successful, normally tends to follow an S-shaped curve: that is, it starts slowly as initial problems and resistances have to be overcome; then it proceeds more rapidly as the competition between the new and the old technology grows keener and the new technology gains an advantage; and finally, as the market for the new technology approaches saturation, the pace of substitution slows down. In forecasting the course and speed of the substitution process especially when it has already begun and partially taken place, the simplest approach is to project a function having the appropriate S-shaped curve, using historical data to determine the free parameters of the function. The simple curve-fitting techniques fail to take into account several important factors that affect economic and management decisions on the part of producers and intermediate users (as well as "final" consumers) and thereby influences the course which the substitution process is likely to take. To overcome this limitation, a simulation model has been developed at X Co. Ltd which allows some of these factors to be evaluated and incorporated explicitly and quantitatively. It is most applicable where the competing technologies are rather precisely defined, where a good deal of current technical

and economic data are available, and where an in-depth analysis is desired. Because this particular forecast was made before the sudden precipitous increase in petroleum prices, which upsets the price relationships assumed in the forecast, there is discussion of the vulnerability of forecasts to political and other contra-economic developments.

- (a) What was the technique used here to forecast the changes in technology? (10)
(b) How do the technological changes affect the overall functioning of the Company? (10)
