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| <b>Question Paper Code : J1128</b> |
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M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2018.

Third Semester

Technology Management

DBA 7011 — TECHNOLOGY FORECASTING AND ASSESSMENT

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What do you understand by State-of-the-Art Technology?
2. Define 'Technology Strategy' to bring out its meaning.
3. List out the four prominent stages of a Technology Life Cycle.
4. What do you understand by the word "Technology Refresh"?
5. Name any two pitfalls of DELPHI Method.
6. What is meant by Surface Engineering?
7. What do you understand by the term Technology Dissemination?
8. List out any four strategic issues involved in the Management of Technology (MOT).
9. Name the types of Office Automation Systems.
10. What do you understand by FDI?

PART B — (5 × 13 = 65 marks)

11. (a) (i) Explain the Costs and Risks involved in the Requirement Engineering (RE) process.  
(ii) Describe the roles of various Teams and People in driving the Organizational Re-design Process.

Or

- (b) Explain elaborately the various tools and techniques commonly used in Business Process Reengineering (BPR).

12. (a) (i) Explain the role of Financial Planning and Support Services towards an effective Technology Cycle Management (TCM).  
(ii) List out the Forecasting methods for General Technology adoption and explain any two of them.

Or

- (b) (i) Explain any two theories of Diffusion in Technology Management.  
(ii) List out the areas of Technology Change process and the major challenges faced by these areas in detail.
13. (a) Explain the following :  
(i) TIFAC's Technology Vision-2035 and its focus areas  
(ii) DELPHI method for Technology Forecasting.

Or

- (b) Explain the following :  
(i) Phases of Technology Forecasting Process  
(ii) Core activities of TIFAC.
14. (a) Explain the following :  
(i) Strategic Planning activities in Technology Dissemination System  
(ii) Potential future Technologies envisaged in Energy Sector.

Or

- (b) Explain the following :  
(i) Five-Forces Model by Michael Porter  
(ii) Constraints of SSEs in effective Choice of Technology.
15. (a) Explain the following :  
(i) Collaborative Knowledge (methods and benefits)  
(ii) Various Tele-Conferencing Systems in Office Automation.

Or

- (b) Explain the following :  
(i) BPR Implementation Phases with relevant steps  
(ii) Innovative strategies for achieving Technology Competitiveness.

PART C — (1 × 15 = 15 marks)

16. (a) Write about the technologies change through in the modern days'.  
Or  
(b) How the technology should be fitted to the agricultural industry to attain the future needs?



12. (a) Explain the following :
- (i) Different levels of technology cycle. (7)
  - (ii) Responding to Technology changes. (6)

Or

- (b) List and explain the different approaches for the adoption of technology.
13. (a) Name the different methodologies of technology forecasting and explain any two of them in detail.

Or

- (b) Explain in detail various of role of Information Technology Forecasting and Assessment Council.
14. (a) What are the different methods for the evaluation of technology assessment?

Or

- (b) Analyse critically the choice of Alternative technologies and explain the various steps involved in implementing technology programmes.
15. (a) Define business process re-engineering and explain its importance and limitations.

Or

- (b) Write short notes on :
  - (i) Intensive Industry Environment
  - (ii) Uses of transferred technology.

PART C — (1 × 15 = 15 marks)

16. (a) Explain some of the reasons for resistance to change. What can the management do to overcome such a resistance?

Or

- (b) What is factory automation and explain in detail the various technological competitiveness currently adopted in Japan and China?

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12. (a) Explain elaborately the concept of Technology Cycle Management (TCM) and its key phases. (13)

Or

- (b) Describe the common human behavioral characteristics that helps an Organization in identifying the 'Resistance' to new technology. (13)
13. (a) Explain the following with suitable examples wherever necessary:
- (i) Types of simulators used in education and training. (7)
- (ii) DELPHI method for technology forecasting. (6)

Or

- (b) Describe the salient features and focus areas of the 'technology vision-2035' as developed by the TIFAC. (13)
14. (a) Explain the following with suitable examples wherever necessary:
- (i) Factors influencing the 'Choice of Technology' by the SSEs. (6)
- (ii) Methodologies adopted for technology dissemination. (7)

Or

- (b) Explain the following with suitable examples wherever necessary:
- (i) Strategic issues in implementing technology programs. (7)
- (ii) Any two 'future technologies' envisaged in energy sector. (6)
15. (a) Explain the following with suitable examples wherever necessary:
- (i) Business process re-engineering (Concept and application areas). (7)
- (ii) Advantages and disadvantages of office automation. (6)

Or

- (b) Explain with examples the role of innovation and strategies adopted by India as well as by other developing countries, towards realizing the necessary technological competitiveness. (13)

PART C — (1 × 15 = 15 marks)

16. (a) A premier MNC with its South Indian Regional Office at Chennai has plans to invest on a large scale in Tamil Nadu with its first step towards identification and promotion of Technologies that are new, emerging and innovative. The agency has approached you to prepare and present to them a Guiding Report in this aspect to begin with. Prepare and present the above required 'Guiding Report' duly incorporating your suggestions

on the various types of Technology forecasting methods, mathematical models etc and their usability, Strategic planning areas and Information gathering avenues for Technology assessment. Also suggest them the potential Technologies ideal and feasible for the region, along with few alternate Technologies as a stand by, to rely on. Justify your report with valid points.

Or

(b) Bhartek India, a committed NGO for development in Chennai has decided to apply soon for Funds facilities from the National level funding Agency. Bhartek has approached you to prepare and submit them a 'Technology Vision and Planning Report' for applying to the above Agency for funds for new Technology introduction and development in Tamil Nadu in the following domains:

- (i) Agriculture and Food Processing and
- (ii) Logistics Domain.

As a Technology Consultant, prepare and present the above comprehensive report duly incorporating:

- (1) Domain wise Innovative technologies that are new, feasible and ideal.
- (2) Methods for sourcing information on the technologies for both domains.
- (3) Methods of technology adoption and suitable strategies (domain wise) for overcoming resistance.
- (4) Suggested areas for seeking governmental support etc. You may note that budget estimates for the above plans is not required from your side. Justify your report with valid points.

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**Question Paper Code : KJ1128**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2017.

Third Semester

Technology Management

DBA 7011 — TECHNOLOGY FORECASTING AND ASSESSMENT

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate 'Scouting Technology' from 'Known Technology'.
2. What do you understand by Competitive Advantage?
3. List out the four 'prominent stages' of a Technology Life Cycle.
4. Name the factors that contribute to the resistance by the Technology end users.
5. Narrate how the S-Curve is useful in Technology Forecasting.
6. List out the major objectives of TIFAC.
7. How 'Strategies' are different from 'Tactics'?
8. List out the 'Forces' involved in the 'Five-forces Model' by Porter.
9. What are the four types of Office Automation Systems?
10. List out the benefits of Collaborative Knowledge.

PART B — (5 × 16 = 80 marks)

11. (a) Describe elaborately the key factors that should be considered by a Firm when determining its 'Requirements Engineering' (RE) process needs. (16)

Or

- (b) (i) Describe the various tools and techniques used in the BPR process. (8)
- (ii) Explain Key Financial Considerations for Technology Planning. (8)

12. (a) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Key Phases of Technology Cycle Management (TCM) process.
  - (ii) Impact of Autonomy and Personalization on Technological Change.

Or

- (b) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Theories of Technology Diffusion (Any Two).
  - (ii) Key Strategies for managing 'Resistance to Change' in Technology.
13. (a) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Systems Dynamics (Steps involved & Applications).
  - (ii) ANALOGY method of Technology Forecasting (Types and applications).

Or

- (b) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Activities of TIFAC (both primary and additional activities).
  - (ii) TIFAC's Technology Vision – 2035 (Thematic areas).
14. (a) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Technology Dissemination System (objectives and methodologies)
  - (ii) Technology Evaluation Process (approach methods and open issues).

Or

- (b) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Technology Analysis (Levels and basic Tools involved).
  - (ii) Future of Energy Technologies (Potential domains).
15. (a) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Document Management Systems in Office Automation.
  - (ii) Steps and Phases in BPR Implementation.

Or

- (b) Explain the following with suitable examples wherever necessary: (8 + 8)
- (i) Progress of 'Business - Government' relations in India.
  - (ii) Collaborative Knowledge (Concept and benefits).

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**Question Paper Code : S1128**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2016.

Third Semester

Technology Management

DBA 7011 — TECHNOLOGY FORECASTING AND ASSESSMENT

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention any four challenges of Technology Forecasting.
2. What are the pre requisites conditions for Technology Planning?
3. List out the outcome of technological changes.
4. Define Technology Adoption.
5. What is Delhi Technique?
6. Write short note on 'S' Curve.
7. What is known as Dissemination of Technology?
8. State the criteria for choosing Technology Alternatives.
9. Define Business Process Re-engineering.
10. What is known as Collaborative Innovation?

PART B — (5 × 16 = 80 marks)

11. (a) Trace out the origin, evolution and growth of technology. (16)  
Or  
(b) "Technology planning is associated with organization redesign and financial consideration" – Discuss. (16)
12. (a) Explain the stages of Technology Cycle and the impact to business. (16)  
Or  
(b) Discuss different approaches to count the resistance towards technology changes. (16)

13. (a) Elaborate technology forecast methods with suitable examples. (16)

Or

(b) Elucidate the role of Information in Technology Forecasting and Assessment. (16)

14. (a) Explain the strategic planning and evaluation process involved in the deciding Technology Alternatives. (16)

Or

(b) 'Success of Technology' is associated with effective implantation of technology programmer' – Justify. (16)

15. (a) Technology Transfer is an appropriate tool in Collaborative innovations - Comment with illustration. (16)

Or

(b) Critically comment on Technological Competitiveness among the developing countries. (16)

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**Question Paper Code : 80128**

M.B.A. DEGREE EXAMINATION, AUGUST 2015.

Third Semester

Technology Management

DBA 7011 — TECHNOLOGY FORECASTING AND ASSESSMENT

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. How does 'Core' Technology differ from 'state-of-the-Art' Technology?
2. List out any four critical factors involved in a Re-engineering effort.
3. How technology diffusion differ from technology refresh?
4. List out the five steps involved in the Technology Adoption process.
5. List out any four practical benefits of using Simulation models.
6. Narrate the term 'Home Grown Technology' (HGT).
7. What is meant by PEST Analysis?
8. With an example, define 'Alternative Technology'.
9. Define BPR as a process, to bring out its meaning.
10. What do you understand by Collaborative Knowledge?

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail, the key factors to be considered while determining the 'Requirement Engineering' (RE) Process Needs. (16)

Or

- (b) (i) Explain the stages involved in a BPR Development Project.  
(ii) Describe the modern tools and techniques of BPR with examples. (16)

12. (a) Explain the following : (8 + 8)

- (i) Key Stages of Technology Cycle.  
(ii) Technology and Human Behaviour.

Or

- (b) Explain the following : (8 + 8)

- (i) Methods used for General Technology Adoption Forecasting.  
(ii) Strategies for managing 'Resistance' to Change in Technology.

13. (a) Explain the following : (8 + 8)

- (i) Soft System Methodology (SSM) and its various Stages.  
(ii) DELPHI method for Technology Forecasting.

Or

- (b) Explain the following : (8 + 8)

- (i) Technology services related Roles and Activities of TIFAC.  
(ii) TIFAC's Technology Vision – 2035 (Objectives and Focus Areas).

14. (a) Explain the following : (8 + 8)

- (i) Technology Choice & Evaluation methods used in SSEs.  
(ii) Strategic Planning methods for Technology dissemination.

Or

- (b) Explain the following : (8 + 8)

- (i) Technology Analysis and its tools.  
(ii) Future Technologies envisaged in Energy Sector.

15. (a) Explain the following : (8 + 8)
- (i) Types of Office Automation in modern Communication Systems.
  - (ii) Steps in Quality Planning for an effective Quality Management.

Or

- (b) Explain the following : (8 + 8)
- (i) Organizational methods for forecasting 'Innovative Work Environment'.
  - (ii) Evolution of Government-Business Relations In Indian Context.
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**Question Paper Code : 22130**

M.B.A. DEGREE EXAMINATION, FEBRUARY/MARCH 2015.

Third Semester

Technology Management

DBA 7011 — TECHNOLOGY FORECASTING AND ASSESSMENT

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the objectives of organization redesign?
2. Define technology planning.
3. Define technology cycle.
4. Define technology change. Give an example.
5. State the advantages of trend analysis.
6. What are the benefits of system dynamics?
7. Define strategic planning.
8. Define alternative technology.
9. What are the outcomes of BPR?
10. Define technological competitiveness.

PART B — (5 × 16 = 80 marks)

11. (a) Elaborate the technological origin and evolution in detail and organizational reengineering. (16)

Or

- (b) Discuss the methods of tailoring technology to fit specific industry requirements and financial considerations for technology planning. (16)

12. (a) Describe the understanding and responding to technological changes in the electronic industry with respect to any product. (16)

Or

- (b) Briefly explain the adoption of technology? Explain the different approaches for adoption of technology in detail. (16)
13. (a) State the needs of technology forecasting? Explain the various technological forecasting methods in detail. (16)

Or

- (b) Highlight the importance of S-curve. Describe the role of technology information forecasting and assessment council in detail. (16)
14. (a) Describe the various ways of dissemination of technology information in detail. (16)

Or

- (b) Explain the evaluation methodology and analysis of alternative technologies. (16)
15. (a) Describe the implementation procedure of BPR in auto ancillary industry. (16)

Or

- (b) Write short notes for the following
- (i) Quality management (4)
  - (ii) Use of transferred technology (4)
  - (iii) Collaborative innovation environment (4)
  - (iv) Collaborative knowledge. (4)