Engineering Tripos Part IB, 2P8: The Engineer in Business (Compulsory), 2018-19

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Timing and Structure
Weeks 1-8, Lent Term. 8 x 1-hour sessions including: 3 x 1-hour sessions on economics, 3 x 1-hour sessions on marketing, 2 x 1-hour sessions on strategy

Aims
The aims of the course are to:

- provide students with a basic understanding of how businesses work, and to give them the language to work effectively with those who work in non-technical roles within a business.

Objectives
As specific objectives, by the end of the course students should be able to:

- gain a preliminary, concise and multi-faceted understanding of issues in running businesses.

Content
The module is structured around three major fields of studies that complement each other, namely economics, marketing, and strategy.

- The sessions on economics aim to introduce the economic nature of the firm, why and how firms grow or contract, and the nature of economic regulation facing firms.
- The sessions on marketing aim to help students understand core questions in marketing and how marketing contributes to business strategy and firm performance; and to help students to develop strategic and analytical skills in planning and evaluating marketing decisions in the business world.
- The sessions on strategy aim to examine how firms develop and maintain competitive advantage; and to help students to develop skills that will allow them to make robust strategic business decisions in the face of uncertainty and complexity.
The Engineer in Business

Sessions on economics (3 x 1-hour sessions):

The economic nature of the firm (1 session)

The theory of the firm (1 session)

The regulation of the firm (1 session)

Sessions on marketing (3 x 1-hour sessions):

Demystifying marketing (1 session)

Strategic brand management (1 session)

Marketing communication in the digital age (1 session)

Sessions on strategy (2 x 1-hour sessions):

What is strategy and how to analyse industries? (1 session)

Types of competitive advantage: Cost leadership and differentiation strategies (1 session)

Further notes

Assessment

A set of multiple-choice questions to be completed over 30 minutes of examination time. Please see the example paper below.

Examples papers

EGT1

ENGINEERING TRIPOS PART IB

*** 2018 9:00 am to 9:30 am

Paper 8
THE ENGINEER IN BUSINESS

Answer ten questions.

All ten questions carry the same number of marks.

Write your candidate number not your name on the cover sheet.

STATIONERY REQUIREMENTS

Single-sided script paper

10 minutes reading time is allowed for this paper.

You may not start to read the questions printed on the subsequent pages of this question paper until instructed to do so.

1. Which of the following is an implication of the transactions cost theory of the firm?

   [10]

   a. The rise of personal computing will decrease the significance of small businesses in the economy.
   b. An increase in the size of the firm will decrease the control of management of the firm.
   c. A rise in the cost of enforcement of legal contracts will aid outsourcing by firms.
   d. A decrease in trade union power will favour small firms over large firms in the long run.
   e. None of the above

2. Which of the following statements is a central feature of Marris model of firm growth?

   [10]

   a. Firms grow by diversification.
   b. Firms grow by chance.
   c. Firms grow by discovering new technologies.
   d. Firms grow because management becomes more competent over time.
   e. None of the above
3. Which of the following industrial policies is primarily a responsibility of central government rather than the independent competition authority in the UK?

a. Mergers  
b. Cartels  
c. Predatory pricing  
d. R+D subsidies  
e. None of the above

4. Which of the following is covered in the 4Ps framework?

a. People  
b. Persuasion  
c. Process  
d. Passion  
e. None of the above

5. Which of the following is a source of customer-based brand equity according to Keller's brand equity framework?

a. Brand awareness  
b. Brand position  
c. Brand architecture  
d. Brand identity  
e. None of the above
6. Which of the following is one of the central elements of a firm’s digital marketing communication strategy?
   a. Digital experience
   b. Digital automation
   c. Digital analytics
   d. Digital technology
   e. None of the above

7. According to Mental Accounting Theory, which of the following is correct?
   a. We should Integrate small gains with large losses;
   b. We should segregate small gains from large losses;
   c. We should Integrate small gains;
   d. We should segregate small losses;
   e. None of the above

8. Which of the following is an element of a firm’s strategy statement?
   a. Execution
   b. Leadership
   c. Resources
   d. Advantage
   e. None of the above

9. Which of the following factors is a central element of PESTEL framework:
   a. Substitute factor
   b. Environmental factor
   c. Supplier factor
   d. Buyer factor
   e. None of the above
10. Which of the following is a source of barriers to entry?

a. Competition between buyers  
b. Suppliers' switching costs  
c. Buyers' price sensitivity  
d. Access to distribution channel  
e. None of the Above

END OF PAPER

Booklists

Please see the Booklist for Part IB Courses [4] for complete references for this module.

Some helpful references on Economics Sessions:


Chapters 3 (Business Organisations), 14 (Alternative Theories of the Firm), 15 (Growth Strategy), 20 (Reasons for Government Intervention in the Market) and 21 (Government and the Firm).

Some helpful references on Marketing Sessions:


- ‘Introduction to Marketing.’
- ‘The Changing Marketing.’
- ‘Managing digital technology in marketing.’
- ‘Digital and global brand management strategies.’


Some helpful references on Strategy Sessions:
Examination Guidelines

Please refer to Form & conduct of the examinations [12].

UK-SPEC

The UK Standard for Professional Engineering Competence (UK-SPEC) [13] describes the requirements that have to be met in order to become a Chartered Engineer, and gives examples of ways of doing this.

UK-SPEC is published by the Engineering Council on behalf of the UK engineering profession. The standard has been developed, and is regularly updated, by panels representing professional engineering institutions, employers and engineering educators. Of particular relevance here is the Accreditation of Higher Education Programmes (AHEP) document [14] which sets out the standard for degree accreditation.

The Output Standards Matrices [15] indicate where each of the Output Criteria as specified in the AHEP 3rd edition document is addressed within the Engineering and Manufacturing Engineering Triposes.

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