

# INFORMATION SYSTEMS

## FORMATION 2 EXAMINATION – JULY 2019

**Section A** - You are required to answer **Questions 1 and 2**.

**Section B** - You are required to answer any **three** out of Questions 3 to 6.

Should you provide answers to all of Questions 3 to 6, you must draw a clearly distinguishable line through the answer not to be marked. Otherwise, only the first three answers to hand for these four questions will be marked.

### **TIME ALLOWED:**

3 hours, plus **10 minutes** to read the paper

### **INSTRUCTIONS:**

During the reading time you may write on the examination paper, but you may not commence writing in your answer book. **Please read each Question carefully.**

Marks for each question are shown. The pass mark required is 50% in total over the whole paper.

**Start your answer to each question on a new page.**

You are reminded to pay particular attention to your communication skills, and care must be taken regarding the format and literacy of your solutions. The marking system will take into account the content of your answers and the extent to which answers are supported with relevant legislation, case law or examples, where appropriate.

List of the cover of each answer booklet, in the space provided, the number of each question attempted.

## **SECTION A- Questions 1 and 2 COMPULSORY**

### **SECTION A**

**Answer BOTH Question 1 and Question 2 in this section. (Both Compulsory)**

**1)**

Booking-mart ltd is an online travel website, offering customers the ability to search for the best deals across a range of comparison sites and provider websites, and then to book and pay online through Booking-mart ltd. currently, it offers hotel accommodation, car hire and a limited number of excursions. Despite being a reasonably late entrant to the market, the company's brand recognition, sales and market share has grown substantially over the past two years. However, the business has yet to make a profit in this competitive market.

Booking-mart ltd's business model is primarily based on referral fees – when a customer books accommodation or car hire with a third party provider through the company's website, a small percentage of the total price is retained by Booking-mart ltd. This accounts for approximately 85% of all revenues. Other revenue streams include onsite advertising (10% of revenue) and 'pay per click' arrangements with one hotel group (attracting a lower margin but high volume, and making up 5% of revenue).

The company has recently secured a substantial venture capital investment and intends to use this to grow the business further, aware that in this competitive, low-margin marketplace, increasing turnover is essential to survival and profitability. Options to achieve this include acquiring a smaller competitor (Redox); diversifying the product offering to include travel incidentals such as travel insurance, airport transfers and airport parking (which attract higher margins); a major advertising campaign (the specifics of which have not yet been discussed); and/or an investment in business intelligence and business analytics. Booking-mart ltd's Chief executive, Caron Powell, is convinced that the need for action is clear: "business intelligence and business analytics could bring tangible benefits as we seek to grow.

Even if we acquire a competitor, even if we diversify the product offering, we just don't have the detailed information we need to understand our customers, their buying habits and how we can engage more with those existing customers". Aaron Travis, Booking-mart Ltd's new head of marketing, is also keen to generate repeat business from existing customers, and has been critical of her predecessor's efforts in this area: 'our competitors – Raymond – have engaged much more with social commerce and social marketing than we have. Paying for a few online ads on search engines, drives some traffic to the site, but in this marketplace we need to do more!

**REQUIREMENT:**

Based on a critical evaluation of the case study above, you are asked to address the following:

- (a) Comment on Caron Powell's statement that "business intelligence and business analytics could bring tangible benefits as we seek to grow". (6 marks)
- (b) Suggest how business intelligence and business analytics tools could be used to achieve such benefits. (10 marks)
- (c) Assess the possible opportunities for Booking-mart arising from social commerce and social network marketing, and to what extent these may be appropriate for this organization. (9 marks)

**Total: 25 Marks**

2) Write **SHORT** notes on any **THREE** of the following.

- (a) Tools and technologies to safeguard information resources
- (b) Three unique features of internet technology and the business significance of these
- (c) Transaction Processing Systems (TPS) in retail organizations.
- (d) The concept of cloud computing and its advantages for a small or medium sized company.

**(5 X3) Total: 15 Marks**

## **SECTION B- Answer any THREE Questions**

### **SECTION B**

**Answer ANY THREE of the four questions in this section.**

**3)**

- (a) Discuss how information needs and information systems requirements may differ between operational, middle, and senior management. (6 marks)
- (b) Discuss the impact of Information systems on the value chain of a business using suitable example (6 marks)
- (c) Contrast Executive Support Systems with Decision Support Systems. In your answer, you should consider the purposes, users and limitations of each, and provide examples relevant to a manufacturer of retail products (8 marks)

**Total: 20 Marks**

**4)**

- (a) Discuss three potential ways that Knowledge Management (KM) may add value to large firms. (6 marks)
- (b) Michael Porter identified five competitive forces that shape the fate of a firm – these are traditional competitors, new market entrants, substitute products and services, customers and suppliers. Discuss three information system strategies that can be adopted to deal with these forces. (6 marks)
- (c) It is suggested that Enterprise Resource Planning (ERP) systems improve efficiency and customer satisfaction. Why might this be the case? You should illustrate your answer with examples (8 marks)

**Total: 20 Marks**

5)

- (a) Suggest four potential risks to the business intelligence environment. (6 Marks)
- (b) Distinguish the difference between data, information and knowledge, giving an example of how each is produced in a large firm (6 Marks)
- (c) Outline the usefulness of Decision Support Systems (DSS) in large, geographically-dispersed organizations (8 marks)

**Total: 20 Marks**

6)

- (a) Outline the difference between a private and public cloud (6 marks)
- (b) Briefly explain three ways in which social media can be useful to a government body. (6 marks)
- (c) suggest how internet technologies can assist in coordinating inter-organizational systems relating to key business processes (8 marks)

**Total: 20 Marks**

**END OF QUESTION PAPER**