



Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Any missing data may be suitably assumed

1. A List types of Entrepreneur. Explain any two type of entrepreneurs. [3]
1. B Describe with examples, six sources of innovation. [3]
1. C Explain the various tools of creative interaction. [4]

2 A Case Study in Engineering Entrepreneurship: Hidden Nation

The Journey Begins: Lee Prescott's journey into entrepreneurship began with his passion for BMX (Bicycle Motor X). He graduated from university with a BSc in Product Design 10 years prior to establishing Hidden Nation. The company's product range is centred on high quality, specialist BMX frames and components which Lee learned all about during his early career in specialist bike design. Lee knew from personal experience that those who compete at the highest level in the BMX circuit worldwide demand only the best frames designed and manufactured to the highest standards.

The Market: The market is mature and populated by discerning buyers. The BMX market has waxed and waned since the 1970s, but throughout the racing circuit has remained strong, featuring a number of racing styles and classes whether it be flatland or trail competition.

First and foremost, Lee is an engineer who has learned and understood exactly what the market wanted and could not get. The realisation awoke the entrepreneur in him but first he had to get the product right, both in terms of design and performance and brand values. The customers not only wanted high performance but also wanted to be associated with a distinctive and unique niche brand where the best buy only the best. Furthermore, in such an

'elitist' market customers become sales representatives because they are proud to be associated with the brand.

The Design and Engineering Issues: Customers in this niche specify their own bike design in great detail encompassing every major and minor component and assembly. The bike must be durable, safe, and fast. Therefore, every engineering decision Lee made was market driven from the outset in order to meet the performance objectives.

Heat treated, (853) lightweight, hardened tubing was selected and supplied by Reynolds Tubes in the UK and a partnership established with a Czech company in order to achieve the required manufacturing standards within a marketable cost/price structure. Equally as important as the frame were the stems and posts that link the frame to the rest of the bike. These were designed to specific criteria too, with the avoidance of thread stripping, minimal slippage and safety as priorities. The number of components was reduced to minimise possibilities of failure and avoid unnecessary production costs.

Marketing Strategy: Now the engineer became even more of an entrepreneur. Having seen the market opportunity, the engineer had to get the product to market. Until this moment in his career Lee had worked in large organisations alongside sales and marketing colleagues but now it was up to him to take the product to market.

Firstly, the brand had to be considered and the first steps taken to establish its position in the marketplace. Careful research showed that a connection with an 'alternative' style and offbeat innovative solutions offered the right values. The name 'Hidden Nation' implies difference and mystery, but for the frame product something more was needed to do it justice in the marketplace. The name 'Akira' was chosen. Akira Kurosawa was a renowned Japanese filmmaker whose work features Samurai traditions. Akira produced his storyboards as full-scale paintings. These paintings are works of art in themselves and given Japanese sword making traditions the inherent precision was transferred to Hidden Nation's brand values.

The exclusivity of the brand was carried through to the sales and marketing strategy. To date ten dealers have been appointed in the UK, one in Ireland and recently one in Australia with negotiations underway in Germany. The customers have become sales people because they value the exclusive association. The website is an information site only with sales activity being undertaken exclusively by the dealers, supported by trade advertising and targeted editorial coverage created by a public relations campaign. Word of mouth endorsements have also become a significant route to new sales. In the second year of trading sales were double that of Year One and growth continues for what is still a one-man business.

Finance: All of the above had to be funded. A Business Plan was created and shown to a variety of traditional funding sources; banks, venture capitalists, business angels and business advisors from several institutions. Offers of funding did not arrive because Lee was too young, too optimistic, wrong about the product, wrong about the market. Lee got used to rejection but carried on regardless. He backed his own belief by remortgaging his house and investing £30,000 of his own money. He remains in full time employment as Head of Design for a queue management system company, working on Hidden Nation in the evenings and reinvests all the profits from trading activity.

A Supportive University: As a provider of Lee's early Product Design education, his university was involved at the start his career. Much later, when Lee conceived his idea and grew the desire to run his own business, he was able to join the university's Vision Works unit which supported embryonic start-up businesses. Vision Works provided office accommodation, telecommunications and computer facilities and, most importantly for Lee, a coaching and mentoring programme. He received the advice and encouragement essential to enabling him to complete the Business Plan and develop the confidence he needed to make his personal investment.

As Lee says, "Vision Works gave me someone to talk to at a time when I had to become an entrepreneur as well as a design engineer".

(Courtesy: Enterprise and Entrepreneurship- Students, Coventry University, UK)

2. A Market driven engineering fueled by a passion for the product and the market meant the product became exactly what the customers wanted. What should have been the marketing strategies for the survival? [4]
2. B Being an entrepreneur can be a very lonely role and so an objective mentor is valuable. Do you agree/disagree? If so give your justification. [3]
2. C Entrepreneurs make markets and engineers can make entrepreneurs - Comment on this. [3]
3. A Explain competencies required for Entrepreneurs. [3]
3. B Explain Entrepreneurs based on the Personality traits. [3]
3. C Enumerate the steps of approaching the Business Opportunity through the Screening Process. [4]
4. A List the Dimensions of Business Viability. Explain any two that you consider as important. Justify your answer. [3]

CASE STUDY: The Story of red Bus: Red Bus is India's largest online bus ticket booking system and positioned as a platform for a centralized reservation system in India. RedBus offers bus ticket reservation through its website and over the phone. Customers can also get bus tickets delivered to their home and pay through a range of payment options. The company offers a ticket inventory for over 1.8 lakh bus routes across India, operated by more than 700 bus operators. The company sold around 40-50 lakh tickets during the financial year 2012. It sold more than 100 lakh seats and has recorded a registered consumer base of 20 lakh, reporting an average growth rate of 250 per cent during the last five years.

The company was founded in 2006 by Phanindra Sama, Charan Padmaraju, and Sudhakar Pasupunuri, who were classmates from BITS Pilani. All the three founders who used to work in Bangalore with top IT MNCs such as IBM, Texas Instruments, and Honeywell quit their well-paying, secure jobs to found redBus. During the Diwali season of 2005, Phanindra Sama wanted to spend the festival in his home town but was not able to buy a ticket. He never made it home and that was the beginning of redBus. Phanindra realized the need for a system, which could be used by bus operators to display their seats and remove middlemen from the ticket reservation process. He decided to bring to those traveling by buses the same convenience that consumers enjoy while booking air tickets online.

4. B Evaluate this proposal from the Market Feasibility stand point. [4]
4. B If you were Mr. Phanindra would you consider the Project as viable? [3]
5. A Classify the forms of Entrepreneurial Businesses and give a suitable example. [4]
5. B Differentiate between an Executive Summary and a Business plan. [3]
5. C What is a Business idea? Explain the methods of evaluating an idea for a business or a product. [3]