

Birla Institute of Technology & Science, Pilani
Work Integrated Learning Programmes Division
Second Semester 2023-2024

Mid-Semester Test
(EC-2 Regular)

Course No. : SE ZG685
Course Title : Software Product Management
Nature of Exam : Closed Book
Weightage : 30%
Duration : 2 Hours
Date of Exam : 17/03/2024 (FN)

No. of Pages	= 1
No. of Questions	= 8

Note to Students:

1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
 2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
 3. Assumptions made if any, should be stated clearly at the beginning of your answer.
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Q.1 Why is product management needed? (2 marks)

Product management is needed to ensure:

1. **Alignment between product and business goals:** It bridges the gap between market demands and company objectives, ensuring the product adds value to customers while meeting organizational goals.
 2. **Efficient resource allocation:** Product management prioritizes features and focuses resources on high-impact areas, optimizing development efforts and minimizing wasted effort.
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Q.2 Detail the various layers of the product-market fit pyramid using Byju's (5 marks)

The product-market fit pyramid consists of five layers:

1. **Target Customer:** For Byju's, the target customers are students (school-going and competitive exam aspirants) and their parents.
 2. **Underserved Needs:** The need for high-quality, flexible, and engaging learning solutions that adapt to each student's pace and level, which traditional schooling systems often lack.
 3. **Value Proposition:** Byju's offers personalized, engaging, and gamified learning experiences through digital platforms, providing flexibility to learn anytime, anywhere.
 4. **Feature Set:** Byju's incorporates interactive videos, quizzes, live classes, and one-on-one mentoring, aiming to make learning fun and effective.
 5. **User Experience:** The app provides a user-friendly interface, progress tracking, and adaptive learning paths that offer a seamless learning experience, catering to different learning styles.
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Q.3 What is the source of innovation and the underserved customer needs which led to Slack? (2 marks)

The source of innovation for Slack was the need for **efficient team communication**. Slack identified that existing communication tools (email, chat apps) were fragmented, causing inefficiencies in collaboration. The underserved customer needs that led to Slack's success were:

1. **Seamless integration with other tools** to keep workflows in one place.
 2. **Organized communication** via channels, which was lacking in traditional email-based systems. Slack solved these pain points by creating a centralized platform for team communication.
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Q.4 Draft a startup canvas for an online HR feedback site (5 marks)

Here's a simplified **Lean Startup Canvas** for the online HR feedback site:

1. **Problem:** The recruitment process is time-consuming due to lengthy background verification.
 2. **Solution:** An online platform where companies provide verified employee feedback linked to their Aadhar number, speeding up recruitment checks.
 3. **Key Metrics:** Number of companies onboarded, number of feedback entries, speed of background verification.
 4. **Unique Value Proposition:** A trusted, centralized platform for accurate and quick employee background verification.
 5. **Unfair Advantage:** Secure integration with Aadhar for verified identification, reducing chances of fraudulent feedback.
 6. **Channels:** HR conferences, recruitment agencies, social media marketing.
 7. **Customer Segments:** Corporates, recruitment agencies, government bodies.
 8. **Cost Structure:** Platform development, Aadhar integration costs, marketing.
 9. **Revenue Streams:** Subscription fees from companies, data access fees for recruitment agencies.
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Q.5 What was Apple's approach when they introduced the touchpad in the iPhone and why? (3 marks)

Apple's approach was **disruptive innovation** when introducing the touchpad (multi-touch interface) in the iPhone:

1. **Why?:** Apple aimed to eliminate physical buttons to create a more intuitive and flexible interface that could handle different tasks with gestures, paving the way for seamless interaction with apps.
 2. **Outcome:** This approach revolutionized the smartphone industry by simplifying the user experience, creating a new paradigm for mobile interaction, and enabling richer app experiences.
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Q.6 Describe the various phases of rapid solutioning and testing technique with an example (5 marks)

Rapid solutioning and testing typically involve three phases:

1. **Ideation/Prototyping:** Teams brainstorm solutions quickly and create prototypes. Example: A startup creating a basic MVP of an e-learning platform.
2. **User Testing:** The prototype is tested with real users to gather feedback. Example: E-learning platform is tested with a small group of students to assess engagement and usability.
3. **Iteration:** Based on feedback, the solution is iterated and improved. Example: After user feedback, the platform's UI/UX is refined, and features are optimized for better learning outcomes.

This cycle of quick iteration allows for testing assumptions early and adapting solutions quickly.

Q.7 Explain Kano model with Airbnb case study (5 marks)

The **Kano model** classifies features into five categories: Basic, Performance, Excitement, Indifferent, and Reverse. Using Airbnb:

1. **Basic Needs:** Essential features like secure payment and accurate listing descriptions. If absent, customers will be dissatisfied.
2. **Performance Needs:** The better these features are, the more satisfied the customer will be. Examples: Ratings system, variety of property types, responsiveness of hosts.
3. **Excitement Needs:** Unexpected but delightful features. For Airbnb, the "**Experiences**" feature (offering unique local experiences) exceeded customer expectations, adding to their satisfaction.
4. **Indifferent:** Features that neither add value nor cause dissatisfaction, such as a color scheme of the app.
5. **Reverse:** Features that may satisfy one group but annoy another. For Airbnb, automated communication might be preferred by some but seen as impersonal by others.

The Kano model helps Airbnb prioritize feature development based on customer impact.

Q.8 What are the design considerations for UX design? Give an example (3 marks)

Key **UX design considerations** include:

1. **User-Centered Design:** The interface should be intuitive and cater to the needs of the users. Example: Google's minimalist homepage is designed for quick search functionality.
2. **Consistency:** Uniformity in design (colors, fonts, layouts) across the app. Example: Facebook maintains a consistent blue color theme and navigation structure across its platform.
3. **Accessibility:** Ensuring that the design is usable by people with disabilities. Example: Apple's VoiceOver feature, which reads out screen elements for visually impaired users.

A well-designed UX ensures that the product is easy to use, efficient, and accessible.
