JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS- 2026

B.Tech-II Semester (CSE/IT/BT/ECE/CE)

COURSE CODE (CREDITS):25B11CI41 (3) MAX MARKS: 35

COURSE NAME: Visual and Interaction Design

COURSE INSTRUCTOR: Mr. GAURAV NEGI MAX. TIME: 2 Hours

Note: *(a) All questions are compulsory.*

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is not allowed

Q.No	Question	CO	Marks
Q1	Explain color psychology and its impact on user emotions and brand perception.	1	2
Q2	Differentiate between: a) Contrast b) Harmony c) Accessibility in color design with suitable examples.	1	1+1+1
Q3	Analyze the importance of a) Light mode b) Dark mode in modern UI design with usability considerations.	2	1+1
Q4	Discuss consistency and usability patterns observed in Apple Human Interface Guidelines.	2	3
Q5	Explain the importance of Easing, Duration and Delay in creating smooth UI animations.	3	3
Q6	A remote test is conducted for a food delivery app.	5,6	3+2+1+1

Metric	Round 1	Round 2
Users Tested	400	400
Successful Orders	220	340
Avg Task Time	11 sec	6 sec
Errors	150	70
Abandonment	90	30

<table>
<tr><td></td><td>a) Calculate Success Rate, Error Rate and Abandonment Rate for both rounds.
b) Determine percentage improvement in Success rate and Task completion speed.
c) Evaluate whether iterative design improved usability.
d) Suggest additional interaction improvements.</td><td></td><td></td></tr>
<tr><td>Q7</td><td>An application is evaluated using 5 usability factors.

<table><tr><th>Factor</th><th>Weight</th><th>Score (/100)</th></tr><tr><td>Efficiency</td><td>0.30</td><td>72</td></tr><tr><td>Learnability</td><td>0.20</td><td>65</td></tr><tr><td>Satisfaction</td><td>0.25</td><td>80</td></tr><tr><td>Error Prevention</td><td>0.15</td><td>60</td></tr><tr><td>Accessibility</td><td>0.10</td><td>75</td></tr></table>
(a) Calculate Final UX Performance Score:
Final Score = Σ (Weight × Score)

(b) Classify UX Quality:

• Excellent → >85
• Good → 70–85
• Average → 50–69
• Poor → <50

(c) Identify weakest usability area.

(d) Suggest iterative improvements.</td><td>5,6</td><td>2+1+1+1</td></tr>
<tr><td>Q8</td><td>Users of a food delivery app frequently click the wrong menu items. How can Heatmaps, User interviews and A/B testing help solve the issue?</td><td>4,5</td><td>6</td></tr>
<tr><td>Q9</td><td>An e-commerce company wants to compare two homepage layouts. Explain how A/B testing can be conducted and evaluated.</td><td>4,6</td><td>4</td></tr>
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