

**Technical and Business**  
**Writing SS2012 & SS2007**  
**(CS, DS, SE)**

**Final Exam**

Total Time (Hrs.): 3  
Total Marks: 65  
Total Questions: 4

Date: 30<sup>th</sup> December, 2025

**Course Instructor(s)**

Hajra Ikram, Uzma Safdar, Arslan Rasheed,  
Munim Mahdi, Areeba Nadeem

Section

Student Signature

Do not write below this line

Attempt all the questions on the answer sheet. Do not attach the question paper.

Q1: Write an Informal Report on the given task:

[20]

You are working as an **Assistant Planning Analyst** at SmartEdge Consulting, a multidisciplinary firm that advises educational institutions on campus infrastructure, usability, and risk management through data-supported and technology-assisted solutions.

The Lahore campus of FAST National University has approached your firm due to persistent student complaints and administrative concerns related to one shared campus facility that serves both academic and non-academic purposes. This space is frequently used for informal study, short breaks, and student gatherings, especially during peak hours. Preliminary site observations and internal feedback reveal multiple concerns. Although the university has basic infrastructure in place, it lacks integrated planning, modern monitoring tools, and user-focused design, resulting in reduced student use, discomfort, and reputational risk for the institution.

The **Registrar of Campus Operations**, Ms. Nadia Hassan, has requested a **concise informal report** to help the administration decide whether to proceed with a redesign and system upgrade in the upcoming academic year. Write a Problem Analysis Report (**letter format**) addressed to Ms. Nadia Hassan highlighting the diagnosed problems on campus. Recommend at least three feasible and cost-aware solutions, incorporating appropriate technological or design-based interventions.

Note: You must write entirely in your own words. Direct copying or close paraphrasing of the question will result in mark deductions for each affected section.

Q2: Read the following job posting published in the Dawn, 20<sup>th</sup> December issue. Then, write a professional cover letter tailored to the job, company, and role. Your letter will be assessed on how effectively you communicate your suitability in a professional tone, indicating the understanding of workplace correspondence conventions.

[15]

# National University of Computer and Emerging Sciences

## Lahore Campus

Your letter must be addressed to: Mr. Adnan Shahid, HR Manager, NanoTech, Faisal Town, Lahore  
**Length:** Around 250–300 words  
*Select the post that is more relevant to your major.*

Job Posting – Software Engineer at NanoTech	Job Posting – Data Analyst at NanoTech
<p><b>Location:</b> Faisal Town, Lahore (Hybrid: office + remote)  <b>Employment Type:</b> Full-time, Entry-Level (0–2 years of experience)  <b>Salary:</b> Competitive, negotiable based on qualifications</p> <p><b>Responsibilities</b></p> <ul style="list-style-type: none"> <li>• Collaborate on software development projects</li> <li>• Contribute to coding, testing, and feature implementation</li> <li>• Debug and maintain existing code</li> <li>• Communicate and work with cross-functional teams</li> </ul> <p><b>Qualifications &amp; Skills</b></p> <ul style="list-style-type: none"> <li>• Bachelor's degree in Computer Science or related field</li> <li>• Knowledge of programming (e.g., Java, Python, or similar)</li> <li>• Basic familiarity with version control (e.g., Git) and cloud platforms</li> <li>• Good communication and collaboration skills</li> </ul>	<p><b>Location:</b> Faisal Town, Lahore (Hybrid: office + remote)  <b>Employment Type:</b> Full-time, Entry-Level (0–2 years of experience)  <b>Salary:</b> Competitive, negotiable based on qualifications</p> <p><b>Responsibilities:</b></p> <ul style="list-style-type: none"> <li>• Conduct data analysis to identify trends, patterns, and insights that drive business performance</li> <li>• Design and administer surveys to gather relevant data, ensuring survey accuracy and reliability</li> <li>• Clean, validate, and transform data to ensure data integrity and usability</li> <li>• Develop data visualizations to effectively communicate insights</li> </ul> <p><b>Qualification:</b> Bachelor's degree in a relevant field (e.g., Statistics, Mathematics, Economics, Engineering, Computer Science) or equivalent practical experience</p> <ul style="list-style-type: none"> <li>• Working knowledge of Python/R statistical programming for data analysis and manipulation</li> <li>• Familiarity with dashboard development and experience with Google Data Studio/Tableau/Power BI is a plus</li> </ul>

**Q3: Read the case study and answer the questions that follow:**

[15]

Adeel Rizvi, a final-year undergraduate student in Information Systems, is preparing to defend his senior capstone project titled "Digital Trust and User Engagement in Mobile Banking Apps." (The defense is scheduled as a 20-minute formal presentation, followed by a 10-minute Q&A session.) (His audience includes a three-member faculty evaluation committee specializing in information systems, data analytics, and human-computer interaction, two visiting professionals from local Fintech companies involved in mobile payment solutions, and a group of undergraduate peers attending as part of a capstone review session.) The outcome of this presentation will determine whether Adeel receives a departmental distinction. Over the past six months, Adeel has:

- Collected survey data from 120 mobile banking users
- Conducted 8 semi-structured interviews with frequent app users
- Designed low- and high-fidelity prototypes proposing improved login flows, trust indicators, and notification systems

Despite the depth and quality of his research, several communication and presentation-related challenges threaten the effectiveness of his defense:



### 1. Overly Technical Content and Audience Diversity

Adeel's presentation covers topics such as interface usability metrics, two-factor authentication workflows, encryption awareness features, and statistical models correlating trust indicators with user engagement rates. While the faculty committee can follow the technical discussion, many undergraduate peers—and even some industry visitors—struggle with the terminology and dense explanations. Adeel is uncertain how to adjust the complexity of his content without appearing to dilute his research or lose professional credibility.

(graphs)

### 2. Weak Slide Layout and Visual Overload

His slides contains:

- Full paragraphs copied from his written report (print)
- Dense flowcharts explaining backend processes (flow diagram)
- Screenshots of app prototypes placed inconsistently across slides (same format)
- A color palette that includes orange, turquoise, and neon green, creating visual distraction (constant color)
- Several graphs include tiny fonts, excessive labels, and unclear legends, making them difficult to read from a distance. (Heading, Sub heading)

### 3. Delivery Issues: Low Confidence and Rigid Body Language

During practice sessions, Adeel relies heavily on cue cards, avoids sustained eye contact, and speaks in a flat, rushed tone due to nervousness. He rarely pauses between ideas, making it hard for the audience to process key points. When asked clarification questions, he becomes visibly anxious and often provides vague or incomplete answers, even when he knows the material. (practice)

### 4. Poorly Organized Flow and Weak Transitions

Although Adeel's research is substantial, the presentation lacks a clear narrative structure. He frequently jumps between theory, methodology, and findings, repeats similar points across slides, and refers back to earlier visuals without clear transitions. As a result, evaluators struggle to follow the logical progression of his argument.

#### Questions:

[5 + 5 + 5]

- What slide-design and visual-communication principles should Adeel apply to make his presentation clearer, more audience-friendly, and easier to follow?
- Suggest practical strategies Adeel can adopt to strengthen his delivery skills.
- How can Adeel strategically prepare for the Q&A segment? Discuss both pre-presentation preparation and real-time techniques for handling difficult questions.

---

#### Q4: Read the case study and answer the questions that follow:

[15]

You and your colleagues have been increasingly anxious at work. Over the past several months, company sales have steadily declined, and signs of cost-cutting are visible everywhere. Complimentary refreshments have disappeared from common areas, finance teams are scrutinizing expense claims more closely than before, and vacant positions are no longer being filled. Informal

conversations on the company's internal messaging platform are dominated by speculation about possible layoffs.

The local job market is weak, and you realize that losing your job could mean relocating your family to another city. While you feel emotionally prepared to deal with unemployment if it happens, having advance notice would allow you to plan financially and personally. Amid this uncertainty, a post from the CEO appears on the company's internal blog:

*"With news of workforce adjustments elsewhere in our industry, we realize many of you are concerned about the possibility here. I'd like to reassure all of you that we remain confident in the company's fundamental business strategy, and the executive team is examining all facets of company operations to ensure our continued financial strength."*

The message circulates quickly and temporarily calms employee anxiety. Many interpret it as an indication that layoffs are unlikely. However, one month later, the CEO announces a workforce reduction affecting 20 percent of the company's employees—nearly 700 people. Employees later learn that senior leadership had already been discussing large-scale layoffs at the time the blog post was published, but this information was deliberately withheld to avoid panic and protect investor confidence.

**Questions:**

[5+3+2+5]

- A. After the layoffs are announced, you reread the CEO's blog post. From the perspective of writing ethics and professional communication, evaluate whether the message can be considered ethical? Give reasons for your answer.
- B. Assume you were responsible for drafting this blog post, but you were legally and contractually unable to disclose the upcoming layoffs at that time. Rewrite the message in a way that is ethically responsible.
- C. From an ethical communication standpoint, what responsibilities do organizational leaders have when communicating with employees during periods of uncertainty?
- D. Match to right column and add why:

1. CEO's reassurance message	A. Observable workplace signals of financial pressure
✓ 2. Ethical communication concern	B. Expresses confidence in strategy but avoids concrete assurances
✓ 3. Declining sales and cost-cutting measures	C. Demonstrates a gap between message tone and actual outcomes
✓ 4. Announcement of 20% layoffs later	D. Creates false expectations among employees without stating false facts
5. Risk of misinformation in internal communication	E. May be seen as incomplete or selectively optimistic