

Technical Writing MCQs

Unit IV

1. What is the primary function of a technical report as a 'Record and Reference' tool?
 - A. To persuade the audience to act based on the data.
 - B. To propose solutions to a technical problem.
 - C. To serve as a permanent archive of work completed, data collected, and conclusions reached.
 - D. To provide necessary data for non-technical managers for funding decisions.

Correct Option: C

2. Which characteristic distinguishes an Informal Report from a Formal Report?
 - A. It is meticulously structured and uses an objective tone.
 - B. It includes an extensive Literature Review and Appendix.
 - C. It is characterized by a short, free-flowing format and a more casual language style.
 - D. It must always adhere to the IMRAD organizational structure.

Correct Option: C

3. Which type of research report emphasizes simplicity, attractiveness, minimal technical detail, and liberal use of charts/diagrams for a broad audience?
 - A. Technical or Scientific Report
 - B. Interim Report
 - C. Popular Report
 - D. Algorithmic Report

Correct Option: C

4. The main purpose of an Interim Report is to:
 - A. State the final conclusion and findings of the completed research.
 - B. Define an algorithm and its implementation steps.
 - C. Analyze project progress before completion and keep sponsors informed of status and delays.
 - D. Publish a brief, high-level statement about the objective and conclusion.

Correct Option: C

5. Which purpose of a technical report is fulfilled when the document provides the data and analysis necessary for a client or manager to decide whether to approve a design or switch materials?

- A. Knowledge Transfer
- B. Problem Solving
- C. Record and Reference
- D. Decision Making

Correct Option: D

6. An Algorithmic Research Report is defined by its focus on expressing the solution to a problem as a(n):

- A. Budget analysis and financial forecast.
- B. Detailed design specification document.
- C. Algorithm, including steps and implementation details.
- D. Executive Summary for non-technical leadership.

Correct Option: C

7. Who is typically listed last on a research paper, according to standard academic conventions?

- A. The author with the greatest writing contribution.
- B. The head of the research group or laboratory (senior author).
- C. The corresponding author who handles communication.
- D. The author responsible for generating initial data tables.

Correct Option: B

8. For search engine optimization and database retrieval, where are the keywords of a formal document typically indexed?

- A. In the Acknowledgement section.
- B. In the Appendix section.
- C. In the Title, Abstract, and a dedicated Keywords section.
- D. Only at the very beginning of the Methodology section.

Correct Option: C

9. What does the acronym IMRAD stand for, as the globally standardized structure for scientific papers?

- A. Introduction, Material, Results, Abstract, and Data

- B. Integration, Method, Research, Analysis, and Document
- C. Introduction, Method, Results, And, Discussion
- D. Investigation, Metrics, Rationale, Approach, and Data

Correct Option: C

10. What is the core question answered by the Introduction section of an IMRAD-structured paper?

- A. What did you find?
- B. Why did you do it?
- C. How did you do it?
- D. What does it mean?

Correct Option: B

11. Which approach is used in the Introduction to move the reader logically from the broad subject area to the specific research objective?

- A. The "Reverse Outline" approach.
- B. The "Chronological History" approach.
- C. The "Funnel" approach (General to Specific).
- D. The "LIFO (Last In, First Out)" approach.

Correct Option: C

12. Which of the following elements should NOT be included in a formal Abstract of a research paper?

- A. A brief summary of the methods used.
- B. The primary conclusion of the study.
- C. Figures, charts, tables, or references.
- D. A statement on the paper's relevance.

Correct Option: C

13. Why is it essential for the Materials and Methodology section to describe the study design in minute detail?

- A. To make the report longer and justify the budget.
- B. To allow other researchers to replicate and validate the work, ensuring reproducibility.
- C. To use the past tense and active voice exclusively.
- D. To list the names of all contributing authors and their roles.

Correct Option: B

14. What is the appropriate tense for writing the Materials and Methodology section, which describes completed actions?

- A. Present tense and active voice.
- B. Past tense and passive voice (e.g., 'The module was tested...').
- C. Future tense and active voice.
- D. A mix of all tenses to describe equipment features.

Correct Option: B

15. What is strictly prohibited in the Results section of an IMRAD paper?

- A. Reporting statistical and quantitative data.
- B. Using visual aids like Figures and Tables.
- C. Discussing the implications of the findings or comparing them with prior work.
- D. Referencing all Figures and Tables in the text.

Correct Option: C

16. In the Results section, the 'presentation of data' is primarily accomplished through:

- A. Textual descriptions written in a paragraph format.
- B. Figures, tables, and graphs.
- C. Interpretation and explanation of the data's meaning.
- D. A list of all equipment used in the experiment.

Correct Option: B

17. The Discussion section typically begins with the specific findings and ends with the general. What does the final, general part usually cover?

- A. The raw, unprocessed data points.
- B. The background and literature review.
- C. The project budget and timeline.
- D. The limitations, implications, and practical applications for future research.

Correct Option: D

18. Which two sections of the IMRAD structure are considered a 'pair' that provides both the problem (why) and the justified answer (what it means)?

- A. Abstract and Results
- B. Introduction and Discussion
- C. Methods and Conclusion

D. Acknowledgement and References

Correct Option: B

19. What is the key purpose of the Acknowledgement section in a research paper?

- A. To list all cited sources and references.
- B. To thank individuals or organizations who provided support but did not meet the criteria for authorship.
- C. To provide a high-level summary of the paper's findings.
- D. To define the scope and limitations of the research.

Correct Option: B

20. When selecting keywords for a research article, what is the best practice regarding terms already present in the Title?

- A. Keywords must be identical to the terms in the Title to ensure maximum indexability.
- B. Terms in the Title should be avoided, and alternate, relevant terms should be used instead.
- C. Use the main verb from the Title as the first keyword.
- D. Keywords are only necessary if the Title is vague or uses too much jargon.

Correct Option: B

21. What is the main objective of the Problem Statement section within a technical proposal?

- A. To list the required personnel and their labor costs.
- B. To clearly and compellingly define the knowledge gap or need, building urgency and justifying the project.
- C. To detail the specific steps and tools for solution implementation.
- D. To define the start and end dates of the project.

Correct Option: B

22. Which element of a technical proposal is responsible for linking the proposed deliverables to the exact problem identified in the Problem Statement?

- A. The Solution (The 'What').
- B. The Timeline (The 'When').
- C. The Budget (The 'Cost').
- D. The Assumptions (The 'If').

Correct Option: A

23. What is the primary purpose of the Methodology (Work Plan) section in a technical proposal?

- A. To provide an executive summary-level overview of the benefits.
- B. To justify the total cost against the project's overall revenue.
- C. To explain the execution process step-by-step, proving the proposing team's feasibility and competence.
- D. To define the key milestones and deliverables without a specific schedule.

Correct Option: C

24. What core principle justifies every line item listed in the Budget section of a technical proposal?

- A. The line item must be a fixed cost, excluding indirect costs.
- B. The total cost must be less than the projected revenue of the solution.
- C. Every budget item must be logically justifiable by the tasks outlined in the Methodology section.
- D. Personnel costs must always be presented as labor hours without corresponding rates.

Correct Option: C

25. In the Timeline (Schedule) section of a proposal, what is the danger of presenting an overly optimistic schedule?

- A. It necessitates including a detailed breakdown of all indirect costs.
- B. It undermines the project's credibility and the proposing team's technical judgment.
- C. It requires too many specific, verifiable Key Milestones.
- D. It forces the use of a complex Gantt Chart.

Correct Option: B

26. In a proposal, the deliverables are the tangible items or outcomes, while the benefits are:

- A. The specific labor hours required to complete the project.
- B. The justification for why the problem is important.
- C. The practical value and positive impact derived from implementing the solution.
- D. The detailed description of the technology used.

Correct Option: C

27. What is the most effective way to visually represent the dependencies and parallel tasks within a complex project timeline?

- A. A simple numbered list of tasks.

- B. A chronological history of all prior related projects.
- C. A Gantt Chart or network diagram.
- D. A bulleted list of personnel and their roles.

Correct Option: C

28. In which scenario should a writer prefer to use the passive voice in a technical document?

- A. When the goal is to emphasize the researcher/engineer performing the action.
- B. When detailing the conclusion in the Discussion section.
- C. When the agent (the one performing the action) is unknown, unimportant, or less important than the action itself.
- D. When generating a Title for a research article.

Correct Option: C

29. The sentence "The engineer tested the module" is written in which voice, and what is the effect?

- A. Passive voice; emphasizes the action.
- B. Passive voice; minimizes the engineer's role.
- C. Active voice; emphasizes the agent (engineer).
- D. Active voice; is only appropriate for informal reports.

Correct Option: C

30. What is the appropriate tense for stating a permanent truth or general conclusion in the Discussion section (e.g., "Water freezes at 0°C")?

- A. Past tense.
- B. Present tense.
- C. Future tense.
- D. Past perfect tense.

Correct Option: B

31. What is the primary reason for avoiding ambiguity (using vague words or phrases) in technical writing?

- A. To make the document longer and more formal.
- B. To ensure legal compliance in all sections.
- C. To prevent misinterpretation of technical instructions or data.
- D. To allow the use of only the active voice.

Correct Option: C

32. The "funnel structure" is used not only in the Introduction but also in the Abstract when following which format?

- A. Descriptive Abstract
- B. Summary Report
- C. Informative Abstract (IMRAD structure)
- D. Structured Abstract

Correct Option: C

33. What is the 'Golden Rule' of AI usage that an engineer must follow when incorporating AI-generated content into a technical document?

- A. Always use the passive voice for AI-generated text.
- B. Input proprietary data into general-purpose AI tools for drafting.
- C. Fact-check and validate every technical claim, number, and citation against raw data and primary sources.
- D. Prioritize the speed of AI drafting over the final document's clarity.

Correct Option: C

34. What is the primary benefit of using Large Language Models (LLMs) for Drafting and Ideation in the engineering workflow?

- A. Automating the full statistical validation process.
- B. Generating initial drafts and frameworks, helping to overcome writer's block and save time.
- C. Enforcing a specific company style guide across all documents.
- D. Generating complex animated GIFs for final presentations.

Correct Option: B

35. A 'Strong Prompt' to an LLM, unlike a 'Weak Prompt,' must provide clear constraints, including the:

- A. Financial budget, project timeline, and list of team members.
- B. Source code for the entire project.
- C. Role, Goal, Audience, and Format.
- D. Full history of all prior failed attempts at drafting.

Correct Option: C

36. The main function of an editorial AI tool (like Grammarly or DeepL Write) in the engineering workflow is to:

- A. Generate boilerplate comments directly from source code.
- B. Suggest entirely new, more professional sentence structures and improve clarity while preserving technical meaning.
- C. Analyze external research articles and extract variables and limitations.
- D. Track a document's overall score against a required safety standard.

Correct Option: B

37. Which AI augmentation task is most effective for explaining a complex engineering concept to a non-technical executive?

- A. Active Voice Conversion.
- B. Simplification (Rewriting a section for an audience with no prior knowledge).
- C. Formal Tone Check.
- D. Brevity Prompt (Condensing into bullet points).

Correct Option: B

38. The engineer must always review AI suggestions flagged for Clarity because:

- A. Clarity suggestions often violate the IMRAD format.
- B. Clarity suggestions are generally incorrect and always introduce typos.
- C. The AI lacks technical context and may try to 'correct' technically correct terms or specialized acronyms, sacrificing precision.
- D. Clarity checks only relate to the document's score and are not mandatory for submission.

Correct Option: C

39. What is the primary risk area for an engineer when using AI tools for Data Retrieval from technical standards or documents?

- A. The inability to generate an accompanying animated GIF of the data.
- B. The retrieved value having Unit Errors or Context Mismatch (e.g., outdated data, wrong operating conditions).
- C. The inability to find the data point at all due to AI limitations.
- D. The data cannot be converted into a markdown table.

Correct Option: B

40. What is the main distinction between an AI-driven Extractive Summary and an Abstractive Summary?

- A. Extractive summaries copy exact sentences; Abstractive summaries rewrite concepts in simpler, synthesized terms.

- B. Extractive summaries are used for reports; Abstractive summaries are for journal articles.
- C. Extractive summaries require the IMRAD format; Abstractive summaries use the P-S-A format.
- D. Abstractive summaries are longer and less concise than extractive summaries.

Correct Option: A

41. What is the primary risk associated with inputting proprietary, confidential, or sensitive project data into general-purpose public AI tools?

- A. The AI might respond with a generic, useless paragraph.
- B. The AI will fail to convert the text into a diagram.
- C. The data may be used to train the model, creating a critical security risk to the intellectual property (IP).
- D. The AI will violate the IMRAD format.

Correct Option: C

42. The ethical failure of the "Copy-Paste" Intern case study resulted primarily from the intern's failure to perform:

- A. Audience adaptation.
- B. Source code documentation.
- C. Critical Evaluation and Verification of the 'hallucinated' statistic.
- D. Automated draft generation.

Correct Option: C

43. The "Human-in-the-Loop" Engineer, in contrast to the intern, performs which two critical actions on AI-generated content?

- A. Verification and Rewriting/Transformation.
- B. Automated formatting and passive voice conversion.
- C. Budget calculation and timeline creation.
- D. Abstract generation and keyword testing.

Correct Option: A

44. What is the main benefit of using Chain Prompting when generating technical content with an LLM?

- A. It guarantees that the output will be free of 'hallucinations.'
- B. It allows the writer to ask for everything at once in a single, complex prompt.

C. It improves the final output by breaking a complex task into sequential steps, refining each step's output before moving on.

D. It is required for converting unstructured text into a markdown table.

Correct Option: C

45. What does the "SECURE" point on the Critical Evaluation Checklist primarily address?

A. Ensuring the AI output is grammatically correct.

B. Ensuring the output is safe from bias.

C. Ensuring the tool used is approved and secure for the type of data being input (i.e., not a general-purpose tool for confidential data).

D. Ensuring the content is transformed and rewritten.

Correct Option: C

46. How do AI tools help an engineer achieve Consistency and Terminology in technical documentation?

A. By generating simple animated GIFs from text prompts.

B. By automatically tracking the total word count and reducing it by 64%.

C. By enforcing a specific style guide and checking for the consistent use of specialized engineering terms.

D. By drafting initial boilerplate text for the Introduction section.

Correct Option: C

47. In a technical proposal, the Technical Lead's credentials and experience are typically presented in which section?

A. Budget and Cost Analysis.

B. Statement of Work.

C. Team Qualifications and Personnel.

D. Executive Summary.

Correct Option: C

48. Why is it important for a figure's caption and number to be included beneath the figure in a technical document?

A. To guarantee that the font size in the image is readable.

B. To align with the IMRAD format's Discussion section.

C. To ensure the figure is understandable without having to read the surrounding text.

D. To give credit to other authors and add credibility to the work.

Correct Option: C

49. If an engineer is using an LLM to simplify a jargon-heavy paragraph for a general audience, what is the best next step if the AI's first attempt still uses too much specialized language?

- A. Give up and rewrite it manually.
- B. Use the same prompt again, hoping for a better result.
- C. Refine the prompt to include a specific instruction to replace the jargon (e.g., "Replace the term 'stochastic optimization' with 'randomized testing'").
- D. Add a full Literature Review to the prompt for more context.

Correct Option: C

50. What does the "TRANSFORM" point on the Critical Evaluation Checklist refer to regarding AI content?

- A. Converting the text into a diagram.
- B. Rewriting the content in your own words to create original work and meet your organization's standards.
- C. Verifying every fact against a primary source.
- D. Checking for bias and inclusive language.

Correct Option: B