# Bloom’s Taxonomy Analysis Explanation

This document provides a detailed breakdown and calculation of cognitive levels based on the provided question set. Each question's keywords are mapped to a cognitive level from Bloom's Taxonomy. The Actual % for each cognitive level is calculated based on the occurrence of keywords across the document.

## Question Breakdown and Keyword Analysis

|  |  |  |  |
| --- | --- | --- | --- |
| Question | Sub-Question Text | Cognitive Level | Keyword |
| Q1 | Explain the significance of containerization in modern software development. | Understand | Explain |
| Q1(a) | Define containerization and its key components. | Remember | Define |
| Q1(b) | Discuss the benefits of using containers over traditional virtual machines. | Understand | Discuss |
| Q2 | Define the process of developing a machine learning model. | Remember | Define |
| Q2(a) | Outline the main stages involved in building a machine learning model. | Apply | Outline |
| Q2(b) | Provide examples of datasets that can be used for model training. | Understand | Examples |
| Q3 | Analyze the impact of data visualization on decision-making in organizations. | Analyze | Analyze |
| Q3(a) | Explain the concept of data visualization. | Understand | Explain |
| Q3(b) | Evaluate how data visualization aids in strategic decisions. | Evaluate | Evaluate |
| Q4 | Compare and contrast the Agile and Waterfall methodologies in software development. | Evaluate | Compare |
| Q4(a) | Describe the Agile methodology. | Remember | Describe |
| Q4(b) | Compare Agile and Waterfall with respect to project flexibility. | Evaluate | Compare |
| Q5 | Explain a simple database schema for a library management system. | Understand | Explain |
| Q5(a) | List the key entities and their attributes in a library system. | Apply | List |
| Q5(b) | Draw an ER diagram based on the entities identified. | Create | Draw |

## Cognitive Level Keyword Count and Actual % Calculation

|  |  |  |  |
| --- | --- | --- | --- |
| Cognitive Level | Total Occurrences | Formula for Actual % Calculation | Actual % |
| Remember | 3 | (3 / 15) \* 100 | 20.0% |
| Understand | 5 | (5 / 15) \* 100 | 33.3% |
| Apply | 2 | (2 / 15) \* 100 | 13.3% |
| Analyze | 1 | (1 / 15) \* 100 | 6.7% |
| Evaluate | 3 | (3 / 15) \* 100 | 20.0% |
| Create | 1 | (1 / 15) \* 100 | 6.7% |

This table presents the calculated Actual % for each cognitive level based on the keywords across the document. Each cognitive level's representation is shown alongside the formula used for the percentage calculation. This structured analysis helps identify cognitive emphasis in the question paper as per Bloom's Taxonomy.

Actual Set of Questions were-

Formatted Question Paper

Q1) Explain the significance of containerization in modern software development. [3 Marks]

* (a) Define containerization and its key components. (Remembering, 2 Marks)
* (b) Discuss the benefits of using containers over traditional virtual machines. (Understanding, 3 Marks)

Question2) Define the process of developing a machine learning model. [5 Marks]

* (a) Outline the main stages involved in building a machine learning model. (Applying, 3 Marks)
* (b) Provide examples of datasets that can be used for model training. (Understanding, 2 Marks)

Q-3) Analyze the impact of data visualization on decision-making in organizations. (10 Marks)

* (a) Explain the concept of data visualization. (Understanding, 4 Marks)
* (b) Evaluate how data visualization aids in strategic decisions. (Analyzing, 6 Marks)

Question4) Compare and contrast the Agile and Waterfall methodologies in software development. [8 Marks]

* (a) Describe the Agile methodology. (Remembering, 3 Marks)
* (b) Compare Agile and Waterfall with respect to project flexibility. (Evaluating, 5 Marks)

Q5) Explain a simple database schema for a library management system. (7 Marks)

* (a) List the key entities and their attributes in a library system. (Applying, 3 Marks)
* (b) Draw an ER diagram based on the entities identified. (Creating, 4 Marks)