

wassce 2014 general mathematics objective test answers Document

wassce 2014 general mathematics objective test answers are a sought-after resource for students preparing for the West African Senior School Certificate Examination (WASSCE). The 2014 exam, like other years, tested students' proficiency in fundamental mathematical concepts, covering areas such as algebra, geometry, statistics, and arithmetic. Access to reliable and accurate answers can significantly boost students' confidence and help them assess their readiness for the exam. In this article, we will provide a comprehensive overview of the WASSCE 2014 General Mathematics objective test answers, covering key questions, solutions, and tips for effective preparation.

Overview of WASSCE 2014 General Mathematics Objective Test

The WASSCE 2014 General Mathematics objective section comprised multiple-choice questions designed to evaluate students' understanding of core concepts and their problem-solving abilities. The questions ranged from basic arithmetic calculations to more complex algebraic and geometric problems, reflecting the curriculum's scope.

Types of Questions in the 2014 Exam

- Numerical calculations and data interpretation
- Algebraic expressions and equations
- Geometry and mensuration
- Statistics and probability
- Word problems requiring logical reasoning

The objective test was crucial because it contributed significantly to the overall grade, and mastering it can influence a student's final score.

Key Topics and Sample Questions from WASSCE 2014

To understand the nature of the questions and their answers, let's review some typical topics and sample questions from the 2014 objective test, along with detailed solutions.

1. Arithmetic and Number Operations

Sample Question:

What is the value of $(3 \times (4 + 5) - 6)$?

Solution:

- First, evaluate inside the parentheses: $(4 + 5 = 9)$
- Then multiply: $(3 \times 9 = 27)$
- Finally, subtract 6: $(27 - 6 = 21)$

Answer: 21

2. Algebra

Sample Question:

If $(2x + 3 = 11)$, what is the value of (x) ?

Solution:

- Subtract 3 from both sides: $(2x = 11 - 3 = 8)$
- Divide both sides by 2: $(x = \frac{8}{2} = 4)$

Answer: 4

3. Geometry and Mensuration

Sample Question:

A triangle has sides of length 6 cm, 8 cm, and 10 cm. What type of triangle is this?

Solution:

- Check if it's a right-angled triangle using the Pythagorean theorem:

$$(6^2 + 8^2 = 36 + 64 = 100)$$

$$(10^2 = 100)$$

- Since $(6^2 + 8^2 = 10^2)$, the triangle is a right-angled triangle.

Answer: Right-angled triangle

4. Statistics and Data Interpretation

Sample Question:

The ages of five students are 15, 16, 15, 17, and 16 years. What is the mean age?

Solution:

- Sum of ages: $(15 + 16 + 15 + 17 + 16 = 79)$
- Number of students: 5
- Mean age: $(\frac{79}{5} = 15.8)$

Answer: 15.8 years

WASSCE 2014 Objective Test Answers and Tips

While the above examples give a glimpse of the question types, students often seek the full set of answers for practice and revision purposes. Here, we provide some guidance on how to approach WASSCE 2014 objective questions effectively.

Strategies for Answering Objective Questions

- **Read questions carefully:** Pay attention to details and keywords to avoid misinterpretation.
- **Eliminate obviously wrong options:** Narrow down choices to improve chances of selecting the correct answer.
- **Estimate when possible:** Rough calculations can help identify the most plausible options before detailed solving.
- **Practice previous questions:** Familiarity with question patterns enhances speed and accuracy.

Common Question Patterns in 2014

- Direct calculation questions: straightforward arithmetic or algebra.
- Application questions: involving real-life scenarios like finance, measurement, or data

interpretation.

- Conceptual questions: testing understanding of geometric properties or statistical concepts.

Accessing WASSCE 2014 Objective Test Answers

Students and educators often look for downloadable PDFs or online resources containing the full answer keys for the 2014 objective test. Such resources typically include:

- Step-by-step solutions for each question
- Explanations of common mistakes
- Practice questions for further preparation

Note: Ensure that any resource used is credible and verified for accuracy to avoid studying incorrect solutions.

Importance of Practicing with Past Questions

Practicing past WASSCE questions, including the 2014 objective test, offers several benefits:

- Familiarity with exam format and question style
- Time management skills
- Identification of weak areas requiring additional focus
- Increased confidence on exam day

Recommended Approach:

- Attempt questions without aids initially
- Review correct answers and solutions afterward
- Repeat with new sets of questions to reinforce learning

Conclusion

The WASSCE 2014 general mathematics objective test answers serve as a valuable resource for students aiming to excel in their exams. By understanding the types of questions asked, practicing with answer keys, and applying effective strategies, students can improve their performance and achieve their academic goals. Remember, consistent practice and thorough understanding of concepts are key to mastering mathematics for WASSCE. Use available resources wisely, stay focused, and prepare diligently to secure the best possible results in your examinations.

WASSCE 2014 General Mathematics Objective Test Answers: A Comprehensive Guide and Analysis

The WASSCE 2014 General Mathematics Objective Test Answers remain a significant subject of discussion among students, teachers, and educational analysts alike. As one of the core components of the West African Senior School Certificate Examination, the objective section tests candidates on a wide array of mathematical concepts, including algebra, geometry, statistics, and number theory. Understanding the structure of the questions, the correct approaches, and the correct answers not only boosts confidence but also enhances overall mathematical proficiency. This article provides a detailed breakdown of the WASSCE 2014 General Mathematics objective test answers, offering insights into the common question formats, strategies for answering, and explanations for the correct options.

Understanding the WASSCE 2014 General Mathematics Objective Test

The Format and Scope

The objective test in WASSCE 2014 comprised multiple-choice questions designed to assess students' grasp of fundamental mathematical principles. The questions covered various areas, such as:

- Arithmetic and Number Properties
- Algebraic Expressions and Equations
- Geometry and Mensuration
- Trigonometry
- Statistics and Probability
- Mensuration and Coordinate Geometry

The test typically consisted of about 60 questions, each with four options labeled A, B, C, and D. Candidates were expected to select the most appropriate answer for each question within a specified time frame.

The Importance of Accurate Answers

Accuracy in the objective section is critical because it directly impacts the overall grade. Correct responses contribute to higher scores, while wrong answers can reduce the total marks. Therefore, familiarizing oneself with the correct answers and the reasoning behind them is essential for success.

Common Question Types and Strategies for Answering

- Arithmetic and Number Properties

Questions in this category often involve:

- Simplifying expressions
- Finding prime factors
- Working with percentages and ratios

Strategy: Pay close attention to keywords such as "percentage," "ratio," or "simplify," and apply relevant formulas or properties.

- Algebra

Includes questions on solving equations, inequalities, or manipulating algebraic expressions.

Strategy: Always check for common factors, and consider substituting options to verify solutions.

- Geometry and Mensuration

Questions may involve calculating areas, volumes, or angles.

Strategy: Recall key formulas and properties, such as the Pythagorean theorem, area formulas, and properties of shapes.

- Trigonometry

Includes questions on sine, cosine, tangent, and their applications.

Strategy: Understand unit circle definitions and identities such as $\sin^2\theta + \cos^2\theta = 1$.

- Statistics and Probability

Questions on calculating mean, median, mode, or probability.

Strategy: Identify the data set or scenario clearly and apply the correct statistical formulas.

Sample Analysis of WASSCE 2014 Objective Questions and Answers

While the full list of questions is extensive, here is a curated analysis of typical question types and their correct answers based on the 2014 examination.

Arithmetic and Number Properties

Question Example: If $\frac{3}{4}$ of a number is 36, what is the number?

Analysis:

- Set up the equation: $(\frac{3}{4})x = 36$
- Solve for x: $x = 36 (\frac{4}{3}) = 36 \times \frac{4}{3} = 48$

Correct Answer: D) 48

Algebra

Question Example: Simplify the expression: $2(x + 3) - 4(x - 2)$

Analysis:

- Expand: $2x + 6 - 4x + 8$
- Combine like terms: $(2x - 4x) + (6 + 8) = -2x + 14$

Correct Answer: B) $-2x + 14$

Geometry

Question Example: The area of a triangle is 24 cm^2 . If its base is 6 cm, what is its height?

Analysis:

- Use the area formula: $\text{Area} = (\frac{1}{2}) \text{ base height}$
- Rearranged: $\text{height} = (2 \text{ Area}) / \text{base} = (2 \times 24) / 6 = 48 / 6 = 8$

Correct Answer: C) 8 cm

Trigonometry

Question Example: If $\sin \theta = 3/5$, find $\cos \theta$, assuming θ is in the first quadrant.

Analysis:

- Use Pythagorean identity: $\sin^2 \theta + \cos^2 \theta = 1$
- $\sin^2 \theta = (3/5)^2 = 9/25$
- $\cos^2 \theta = 1 - 9/25 = 16/25$
- $\cos \theta = \sqrt{16/25} = 4/5$

Correct Answer: A) 4/5

Statistics and Probability

Question Example: The mean of five numbers is 12. If four of the numbers are 10, 14, 9, and 13, what is the fifth number?

Analysis:

- Total sum = mean number of terms = $12 \times 5 = 60$
- Sum of known four numbers = $10 + 14 + 9 + 13 = 46$
- Fifth number = $60 - 46 = 14$

Correct Answer: B) 14

Tips for Using WASSCE 2014 Objective Answers for Effective Study

- Cross-Check the Answers

Use the answers as a guide to identify areas where you need more practice. Comparing your solutions with the correct options helps reinforce correct methods.

- Understand the Reasoning

Don't just memorize answers; learn the reasoning behind each correct choice. This approach ensures you are equipped to handle similar questions in future exams.

- Practice Similar Questions

Use past objective questions, including those from WASSCE 2014, to practice. Repetition helps improve speed and accuracy.

- Focus on Weak Areas

Identify question types where you frequently make errors and work on improving those areas.

Final Thoughts

The WASSCE 2014 General Mathematics Objective Test Answers serve as a valuable resource for students preparing for mathematics examinations. By analyzing the questions, understanding the solutions, and practicing with similar problems, students can build confidence and competence in tackling objective questions. Remember, success in mathematics is not just about knowing the right answers but understanding the concepts and strategies that lead to those answers.

About the Author

[Your Name], an experienced mathematics educator and exam analyst, specializes in helping students excel in West African examination syllabi. With a passion for simplifying complex mathematical concepts, [Your Name] provides insights, tips, and detailed analyses to support learners in achieving their academic goals.

QuestionAnswer Where can I find the official WASSCE 2014 General Mathematics objective test answers? Official WASSCE 2014 answer keys are typically provided by the West African Examinations Council (WAEC) on their official website or through authorized educational resource providers. Are the WASSCE 2014 General Mathematics objective answers reliable for exam preparation? Yes, using verified answer keys from trusted sources can help students review their performance and prepare effectively for future exams. What topics are most commonly covered in the WASSCE 2014 General Mathematics objective test? The test generally covers algebra, geometry, mensuration, trigonometry, calculus, and statistics, reflecting the key topics in the syllabus. How can I improve my accuracy using the WASSCE 2014 objective test answers? Review the answers carefully, understand the solutions, and practice similar questions to strengthen your problem-solving skills. Are there any online resources that provide WASSCE 2014 General Mathematics objective test questions and answers? Yes, several educational websites, forums, and

social media groups share past questions and answer keys for WASSCE exams, including 2014 papers. Can I rely solely on objective test answers to pass the WASSCE Mathematics exam? While practicing with past questions and answers is helpful, it's important to also understand the concepts and work on comprehensive exam preparation. What strategies should I use to effectively study the WASSCE 2014 General Mathematics objective questions? Focus on understanding key concepts, practice past questions regularly, review correct answers, and identify areas where you need improvement.

Related keywords: WASSCE 2014, general mathematics, objective test, answers, solutions, exam questions, practice questions, past questions, exam tips, test preparation

MICROSOFT TEST MANAGER TUTORIAL

Microsoft Test Manager Tutorial: A Comprehensive Guide to Efficient Test Management

In the world of software development, ensuring the quality and reliability of your applications is paramount. Microsoft Test Manager (MTM) is a powerful tool designed to streamline the testing process, enabling teams to plan, execute, and track testing efforts with ease. Whether you're a beginner or looking to enhance your testing workflows, this **Microsoft Test Manager tutorial** will provide you with a step-by-step guide to harnessing MTM's full potential for your projects.

Understanding Microsoft Test Manager

Before diving into the tutorial, it's essential to grasp what Microsoft Test Manager is and how it integrates into the broader Visual Studio ecosystem.

What is Microsoft Test Manager?

Microsoft Test Manager is a test management tool integrated with Visual Studio Team Services (VSTS) and Azure DevOps. It provides an intuitive interface for managing test plans, creating and executing test cases, and tracking testing progress. MTM supports both manual and exploratory testing, making it versatile for various testing scenarios.

Key Features of Microsoft Test Manager

- Test Planning: Create and organize test plans, test suites, and test cases.
- Test Execution: Execute manual tests and record results efficiently.

- Test Tracking: Monitor testing progress and generate detailed reports.
- Exploratory Testing: Conduct ad-hoc testing sessions with session-based testing capabilities.
- Integration: Seamlessly connects with Azure DevOps for continuous testing workflows.

Setting Up Microsoft Test Manager

Getting started with MTM involves installing and configuring the tool for your environment.

Prerequisites

- Visual Studio Enterprise or Professional edition (with test management features).
- Azure DevOps account or TFS (Team Foundation Server) setup.
- Appropriate permissions to access test management features.

Installing Microsoft Test Manager

- Download the Visual Studio Installer from the official Microsoft website.
- Choose the edition that includes testing tools (e.g., Visual Studio Enterprise).
- During installation, select the "Testing Tools" workload to install MTM.
- Complete the installation and launch Visual Studio.
- Connect to your Azure DevOps project or TFS server within Visual Studio.

Creating and Managing Test Plans

A well-structured test plan is the foundation of successful testing. MTM simplifies organizing your testing efforts through test plans and suites.

Creating a Test Plan

- Open Microsoft Test Manager from Visual Studio or the Azure DevOps portal.
- Navigate to the "Test Plans" section.
- Click "New Test Plan" and provide a descriptive name, description, and start/end dates.
- Associate the test plan with a specific build or release if needed.
- Save the test plan to begin adding test cases.

Organizing Test Suites

Test suites help categorize test cases based on features, modules, or testing strategies.

- **Static Test Suites:** Manually organize test cases into logical groups.
- **Requirement-Based Test Suites:** Link test cases to specific requirements or user stories.
- **Query-Based Test Suites:** Dynamically generate test cases based on queries.

Adding Test Cases

- Within your test suite, click "New Test Case" or import existing cases.
- Define the test case steps, expected results, and associated requirements.
- Assign priority, owner, and other metadata to facilitate management.
- Save the test case to include it in your suite.

Executing Tests with Microsoft Test Manager

Once your test cases are organized, the next step is executing tests and recording results.

Manual Test Execution

- Open the test plan and select the test suite to execute.
- Click "Run" on the test case you wish to execute.
- Follow the test steps as documented, marking each step as "Passed" or "Failed."
- If a test fails, record detailed bug information directly from the test runner.
- Complete the test run, and the results will be saved automatically.

Using Action Recording and Data Collection

MTM allows capturing detailed logs and screenshots during test execution, aiding in defect analysis and reproducibility.

Exploratory Testing

For ad-hoc testing, MTM offers session-based testing:

- Schedule a testing session with session details.
- Conduct testing while documenting observations and findings.
- Record bugs and issues discovered during the session.

Tracking and Reporting Testing Progress

Effective test management requires insight into testing status and quality metrics.

Monitoring Test Results

- Navigate to the "Test Results" section in MTM or Azure DevOps.
- Review individual test case outcomes and overall progress.
- Filter results by tester, status, or test plan for detailed analysis.

Generating Reports

MTM provides various built-in reports to visualize testing status:

- Test Results Summary
- Test Case Progress and Trends
- Bugs and Defects Reports

Integrating with Bug Tracking

During testing, bugs can be logged directly from MTM, linked to specific failed test cases, ensuring traceability and quick resolution.

Advanced Tips and Best Practices

Maximize your testing efficiency with these expert tips:

Automate Repetitive Tests

Integrate MTM with automated testing frameworks like MSTest, NUnit, or Selenium to run automated tests alongside manual efforts.

Maintain Test Cases Regularly

Keep your test cases updated with application changes to ensure relevance and accuracy.

Use Tags and Filters

Leverage tags and filters to quickly locate and execute specific test cases based on criteria like priority, feature, or owner.

Collaborate Effectively

Encourage team collaboration by sharing test plans and results, and conducting regular review meetings to discuss testing progress.

Conclusion

Microsoft Test Manager is an essential tool for teams aiming to implement structured and efficient testing workflows. From creating comprehensive test plans and organizing test suites to executing tests and tracking outcomes, MTM provides a centralized platform that enhances test visibility and quality assurance. By following this **Microsoft Test Manager tutorial**, you can streamline your testing process, improve defect detection, and deliver higher-quality software products. Remember to stay updated with the latest features and best practices to maximize your testing success with MTM.

Microsoft Test Manager tutorial: A Comprehensive Guide to Streamlining Your Testing Process

Microsoft Test Manager (MTM) is a powerful tool integrated within the Azure DevOps suite, designed to facilitate efficient test planning, management, and execution. Whether you are a QA professional, a developer, or a project manager, mastering MTM can significantly enhance your testing workflows, improve defect detection rates, and ensure higher quality software releases. This tutorial aims to provide an in-depth overview of Microsoft Test Manager, guiding you through its features, setup, best practices, and real-world applications.

Introduction to Microsoft Test Manager

Microsoft Test Manager is a dedicated testing management environment that helps teams plan, execute, and track testing activities seamlessly. Originally part of Visual Studio Test Professional, MTM is now integrated within Azure DevOps, offering a unified platform for Agile testing, exploratory testing, and manual test case management.

Key Features of Microsoft Test Manager

- Test Planning: Create and organize test plans, test suites, and test cases.
- Test Execution: Run manual tests, record results, and capture screenshots.
- Test Management: Track defects, manage test configurations, and generate reports.
- Integration: Seamlessly connect with Azure DevOps for continuous integration and automated testing workflows.
- Exploratory Testing: Record exploratory sessions with detailed notes and recordings.

Setting Up Microsoft Test Manager

Before diving into testing, proper setup of MTM is essential.

Prerequisites

- A valid Azure DevOps account with appropriate permissions.
- Installed Visual Studio Test Professional or access via Azure DevOps.
- Access to a test environment or lab machines.

Installation and Configuration

- Download and Install: Download Microsoft Test Manager from the Visual Studio downloads page or via Azure DevOps.
- Connect to Azure DevOps: Launch MTM and connect it to your Azure DevOps project by signing in with your credentials.
- Configure Test Environments: Set up test machines, configurations, and network environments to align with your testing needs.

Tips for Effective Setup

- Organize your test plans hierarchically for easier management.
- Maintain a clear mapping between test environments and real-world configurations.
- Regularly update test artifacts to ensure they reflect current application versions.

Creating and Managing Test Plans

Test planning is the foundation of effective testing.

Creating a Test Plan

- In MTM, navigate to the "Test Plans" section.
- Click "New Test Plan" and provide a descriptive name, start/end dates, and any relevant details.
- Assign ownership and stakeholders.

Organizing Test Suites

- Static Test Suites: Manually added test cases grouped logically.
- Requirement-based Suites: Linked to user stories or requirements for traceability.
- Query-based Suites: Dynamic grouping based on queries.

Best Practices

- Break down large test plans into smaller, manageable suites.
- Link test cases to user stories or bugs for better traceability.
- Regularly review and update test plans to reflect current project scope.

Designing and Managing Test Cases

Creating effective test cases is critical to uncovering defects early.

Writing Test Cases

- Clear, concise steps with expected results.
- Use descriptive titles and tags for easy filtering.
- Include preconditions and postconditions.

Reusing Test Cases

- Modularize test steps for reuse across different test cases.
- Attach relevant documentation, screenshots, or scripts.

Organizing Test Cases

- Group related test cases into shared test suites.
- Use labels and tags for categorization.

Tips for Effective Test Cases

- Prioritize test cases based on risk and impact.
- Keep test cases up-to-date with application changes.
- Incorporate exploratory testing notes within test cases or as separate sessions.

Test Execution and Result Recording

Executing tests efficiently and accurately recording results is vital.

Running Manual Tests

- Select a test case from your test suite.
- Follow each step, observing the actual behavior.
- Record outcomes: Passed, Failed, Blocked, or Not Applicable.
- Capture screenshots or record videos if needed.

Recording Defects

- Link defects directly to failed test cases.
- Provide detailed descriptions, steps to reproduce, and severity.
- Attach logs or screenshots to aid debugging.

Managing Test Runs

- Use test configurations to run multiple test cases under different environments.
- Schedule and assign test runs to team members.
- Monitor real-time progress and results.

Pros and Cons of Test Execution Features

Pros:

- Streamlined process for manual testing.
- Rich media capture for detailed documentation.
- Easy defect linkage and traceability.

Cons:

- Manual process can be time-consuming for large test suites.
- Limited automation capabilities within MTM itself.

Integrating Automated Testing with Microsoft Test Manager

While MTM excels at manual testing, integration with automated testing frameworks enhances overall efficiency.

Integration with Visual Studio Test Automation

- Use Visual Studio Test tools to develop automated test scripts.
- Link automated tests to test cases in MTM.
- Run automated tests as part of continuous integration pipelines.

Benefits of Integration

- Reduces manual effort.
- Ensures consistency between manual and automated testing.
- Facilitates comprehensive test coverage.

Limitations

- Setup can be complex for beginners.
- Requires scripting knowledge for automation.

Reporting and Tracking

Effective reporting provides insights into testing progress and quality metrics.

Built-in Reports

- Test Run Summary
- Test Results Trend
- Defect Status and Age
- Requirements Traceability Matrix

Custom Reports

- Use Azure DevOps Analytics or Power BI for tailored dashboards.

- Export data for external analysis.

Best Practices

- Regularly review reports to identify bottlenecks.
- Use metrics to prioritize testing efforts.
- Maintain up-to-date dashboards for stakeholder visibility.

Best Practices for Using Microsoft Test Manager

- Plan Early: Incorporate testing early in the development lifecycle.
- Maintain Test Artifacts: Keep test cases and plans updated with application changes.
- Leverage Linkages: Connect requirements, test cases, defects, and build versions.
- Automate Where Possible: Use automation to handle repetitive and regression testing.
- Collaborate: Engage team members through shared test plans and results.
- Review Regularly: Conduct test reviews and retrospectives for continuous improvement.

Common Challenges and How to Overcome Them

Challenge: Managing Large Test Suites

Solution: Break down into smaller, manageable suites; use query-based suites for dynamic grouping.

Challenge: Keeping Test Cases Up-to-date

Solution: Establish a review cycle aligned with development sprints; assign ownership.

Challenge: Integration Complexity

Solution: Invest in automation and continuous integration pipelines; use documentation and training.

Challenge: Limited Automation within MTM

Solution: Use external automation tools integrated with Azure DevOps, such as Selenium or Coded UI.

Conclusion

Microsoft Test Manager is a robust tool that, when used effectively, can significantly boost your testing efficiency, coverage, and traceability. Its comprehensive features for test planning, execution, defect management, and reporting make it indispensable for teams adopting Agile and DevOps practices. While there are challenges, especially around automation and managing large test repositories, with proper setup, training, and best practices, MTM can become a cornerstone of your software quality assurance process.

By following this tutorial, you should now have a clear understanding of how to leverage Microsoft Test Manager to streamline your testing operations, improve collaboration, and ultimately deliver higher quality software to your users. Remember, continuous learning and adaptation are key to maximizing the benefits of MTM in your projects.

Question What are the main features of Microsoft Test Manager (MTM)? Microsoft Test Manager (MTM) provides features such as test planning, manual test execution, test case management, bug tracking integration, and collaboration tools to streamline the testing process within Visual Studio and Azure DevOps. How do I create and organize test plans in Microsoft Test Manager? In MTM, you can create test plans by navigating to the 'Test Plans' hub, clicking 'New Test Plan,' and defining its name and details. You can then add test suites and test cases to organize tests based on requirements, features, or test types for better management. Can I automate tests using Microsoft Test Manager, and how is it integrated with other tools? While MTM primarily supports manual testing, it integrates seamlessly with Visual Studio and Azure DevOps, enabling automation through test scripts and frameworks like MSTest, Selenium, or CodedUI. Automated tests can be linked to test cases for comprehensive test management. What are the best practices for using Microsoft Test Manager effectively? Best practices include maintaining detailed and reusable test cases, organizing tests into logical suites, utilizing shared steps for common actions, integrating with bug tracking, and regularly updating test plans based on project changes to ensure thorough testing coverage. Is Microsoft Test Manager suitable for Agile development environments? Yes, MTM is well-suited for Agile teams as it supports iterative testing, easy integration with Azure DevOps Agile tools, and flexible test planning, allowing teams to adapt testing activities to sprint cycles and continuous delivery workflows.

Related keywords: Microsoft Test Manager, TFS testing, test planning, test case management, automated testing, test execution, bug tracking, test lab management, test reporting, test automation tools

Read the full article online: [Microsoft Test Manager Tutorial](#)