SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE NAME : 19CS511 SOFTWARE TESTING

III YEAR / V SEMESTER

Unit 4 - TEST MANAGEMENT

Topic 4 : Introducing the test specialist and Skills needed by a test specialist

 Reviewed Functional Design and Business Process Documents for better understanding of the integration projects and better understanding of the business requirements.

 Collect and report performance/test results through various metrics reporting tools and communicating to key stakeholders on a regular basis.

There are testing and debugging policies in place, which are available for all project personnel to access. There is management support for these policies. Management ensures they are applied to all projects.

 Testing for each project is planned. The test plan is prepared in conjunction with the project plan so that project goals can be achieved.

The organization has institutionalized basic black and white box methods and applies them to design, and execute tests on software that is being developed, acquired, and maintained.

Test specialist-Cont..

- By supporting a test group an organization acquires *leadership* in areas that relate to testing and quality issues. For example, there will be staff with the necessary skills and motivation to be responsible for:
  - maintenance and application of test policies;
  - development and application of test-related standards;
  - participating in requirements, design, and code reviews;
  - test planning;
  - test design;
  - test execution;
  - test measurement;
  - test monitoring (tasks, schedules, and costs);
  - defect tracking, and maintaining the defect repository;
  - acquisition of test tools and equipment;
  - identifying and applying new testing techniques, tools, and methodologies;
  - mentoring and training of new test personnel;
  - test reporting.

There will be staff with the necessary skills and motivation to be responsible for:

 maintenance and application of test policies

 development and application of test-related standards;

 participating in requirements, design, and code reviews;
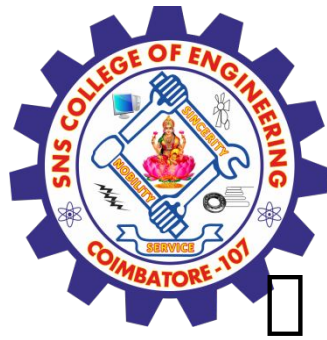
 test planning;

test design;

 test execution;

 test measurement;

 test monitoring (tasks, schedules, and costs);

 Defect tracking, and maintaining the defect repository;

Test specialist-Cont..

☐ acquisition of test tools and equipment;

☐ identifying and applying new testing techniques, tools, and methodologies ;

☐ mentoring and training of new test personnel;

☐ test reporting..

Skills Needed by a Test Specialist

 On the personal and managerial level a test specialist must have:

 Organizational, and planning skills;

The ability to keep track of, and pay attention to, details;

 The determination to discover and solve problems;

 The ability to work with others and be able to resolve conflicts;

 The ability to mentor and train others;

 The ability to work with users and clients;

 Strong written and oral communication skills; the ability to work in a variety of environments;

Test Specialist-Cont..
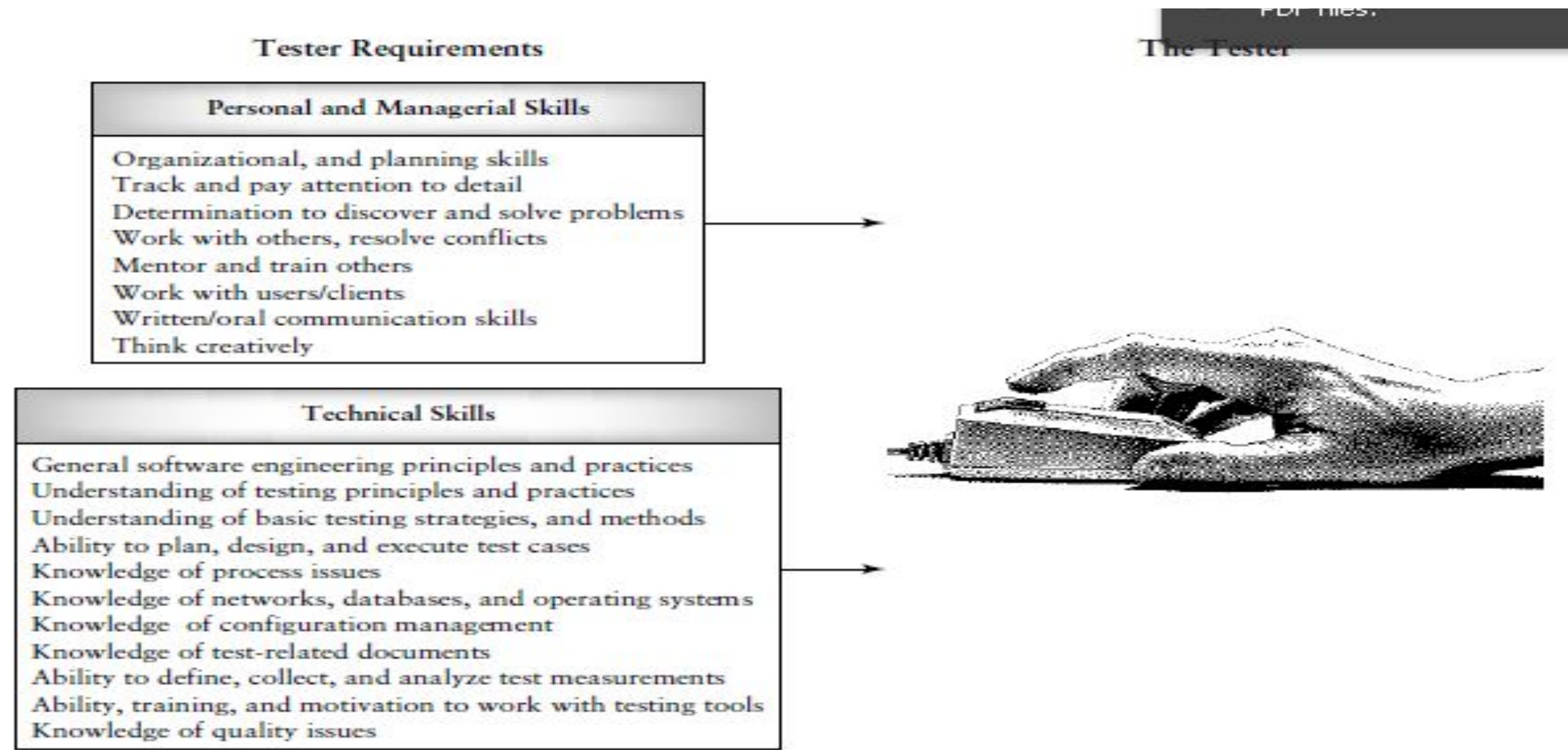
Tester Requirements

Personal and Managerial Skills

Organizational, and planning skills
Track and pay attention to detail
Determination to discover and solve problems
Work with others, resolve conflicts
Mentor and train others
Work with users/clients
Written/oral communication skills
Think creatively

Technical Skills

General software engineering principles and practices
Understanding of testing principles and practices
Understanding of basic testing strategies, and methods
Ability to plan, design, and execute test cases
Knowledge of process issues
Knowledge of networks, databases, and operating systems
Knowledge of configuration management
Knowledge of test-related documents
Ability to define, collect, and analyze test measurements
Ability, training, and motivation to work with testing tools
Knowledge of quality issues

The Tester

FIG. 8.1
Test specialist skills.

•Testers also need to understand quality measures such as reliability, maintainability, usability, and how to test for them. In addition to all of these requirements, it is very important for testers to be willing and able to work with testing tools and configuration management systems.

•The list of skills and knowledge requirements needed to be a successful test specialist is long and complex. Acquiring these skills takes education, training, experience, and motivation.

Testing Technical Specialist roles

| System Integration Testing Specialist | Performance / Load test Testing Specialist | BI Testing Specialist | Software Security Testing Specialist | Automated Testing Specialist | Business Process Testing Specialist |

Activity

Advantages	Disadvantages
Speed and Efficiency	Risks of Disappointment
Cost-Effectiveness	Requires More Time and Assets
Manual testing is Consistent with Life Testing	Lack of Manual Intervention
Expanded Adaptability	Automated Testing
	Lack of Human Input on UI and Usability
	Requires Additional Cost

Assessment 1

1. List out the Advantages of test specialist

a)_____

b)_____

c)_____

d)_____

2. Identify the Disadvantages of test specialist

a)_____

b)_____

c)_____

d)_____

TEXT BOOKS:

1. Srinivasan Desikan and Gopalaswamy Ramesh, ―Software Testing – Principles and Practices‖, Pearson Education, 2006.

2. Ron Patton, ―Software Testing‖, Second Edition, Sams Publishing, Pearson Education, 2007. AU Library.com

3. REFERENCES:

1 . Boris Beizer,‖ Software Testing Techniques‖ – 2nd Edition, Van Nostrand Reinhold, New York, 1990.

2. Aditya P. Mathur, ―Foundations of Software Testing _ Fundamental Algorithms and Techniques‖, Dorling Kindersley (India) Pvt. Ltd., Pearson Education, 2008.

THANK YOU