

**According to NSQF Level 3 compliant Competency-based Curriculum prescribed by
D.G.T., Ministry of Skill Development and Entrepreneurship, Govt. of India**

As per NIMI – DGT Modular pattern

Preface

The Trade Committee members of COPA trade (sector: IT & ITeS) have revised & redesigned the syllabi w.e.f. commencement of admission session of 2022, by introducing new modules and much more advanced software, in order to provide a comprehensive foundation and appreciation in prevailing trends in information technology.

New 2022 syllabus also provides opportunity for students to select from Elective Modules on JAVA and PYTHON programming. Students can select either of the two Elective Modules for their training. Working towards the same goal, the prescribed curriculum comprises of **Introduction to Computer Fundamentals, Operating Systems, Office Automation using Word, Excel, PowerPoint, Database Management Systems, Networking, Internet and Web Design Concepts, JavaScript, E-commerce, Cyber Security, Cloud Computing & Application Development Life Cycle and Python & JAVA Programming Languages.**

This book **COPA with Programming in Python and JAVA Trade Practical** comprises of a step-by-step practical approach, instituted as per the prescribed curriculum, to benefit the trainees in learning about Trade tools. Computer Peripherals, Internal Components, Software Installation process, basic DOS commands, Windows Operating System, LINUX interface, Office Packages using Word, Excel, PowerPoint, Database Management using MySQL, configuring Networks and Internet, designing basic Static Web Pages, JavaScript to develop dynamic Web Pages, Advanced Excel using Macros, Pivot Tables, Charts, Power Query, E-commerce systems (browsing, searching, selecting and transacting e-commerce websites), various Cyber Security concepts, Cloud Computing, Python and JAVA programming Language.

A detailed list of lab practicals of above topics has been designed in this book, with an aim to make the students understand various features of the software and their conceptual aspects efficiently by practice.

Since there is always a room for improvement even for a well written book, we always welcome any suggestions or ideas for perfection of this book. It is trusted that this book will be beneficial not only for students, but also for office people and professionals alike.

I sincerely thank the Publishers Mr. Anil Mehta and Mr. Satinder Mehta for their active co-operation in making up of this book. The present book is a further step towards their services to the education community.

-Author

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Module 15. Electronic Commerce	390-409
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002. Examine an e-commerce website www.flipkart.com	399
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Module 16. Cyber Security 410-414

Practical Assignment No.

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Module 17. Cloud Computing 415-427

Practical Assignment No.

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| 002. Create and configure an Azure Active Directory Domain Services and managed domain | 417 |
| 003. Create and configure a free Microsoft Office 365 account & switch users | 421 |
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Elective Modules I & II

Module I. Python Programming Language 428-460

Practical Assignment No.

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| 001. Install, setup, verify environment path and run Python Programming Language | 428 |
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| 003. Explore the use of print, comment statements and different variables in python program | 431 |
| 004. Explore the different data types in python program | 433 |
| 005. Explore the casting of variables in python program | 434 |
| 006. Explore the string operations of variables in python program | 434 |
| 007. Explore the different date operations in python program | 437 |
| 008. Explore the input operations in python program | 439 |
| 009. Explore the output variables in python program | 439 |
| 010. Explore the output formatting of variables in python program | 440 |
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| 012. Explore the use of branched statements and flow of decisions in python program | 445 |
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| 014. Explore the use of loop control statements in python program | 449 |
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| 018. Explore the use of Dictionary objects in python program | 458 |
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Module II. JAVA Programming Language 461-496

Practical Assignment No.

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| 002. Explore the use of various Data Types in JAVA Programming Language | 463 |
| 003. Explore the use of different operators in JAVA Programming Language | 464 |
| 004. Explore the use of Local, Instance and Static variables in JAVA Programming Language | 467 |
| 005. Take input from the user in JAVA Programming Language | 469 |
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| 016. Create and using a constructor in JAVA Programming Language | 488 |
| 017. Explore the use of super class and sub class in JAVA Programming Language | 487 |
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| 019. Explore the use of abstract classes in JAVA Programming Language | 492 |