SYLLABUS
for Comprehensive State Exam
Degree: Computer science
Professional qualification: Master degree in
“Informatics and Computer Science”, Class: 2022-2023

E-Commerce
2. Electronic commerce – definition, features and technological models. Electronic payment systems, used in e-commerce. Evaluation of electronic shops
4. Introduction to e-marketing. The e-commerce website as a marketing tool. Website promotion and advertising. Web site Search Engine Optimization (SEO).

Literature:

.NET Web Development
5. The .NET platform – .NET Framework, .NET and .NET Core web applications, basic components of the .NET Framework, programming languages and development tools.
6. Web controls, events and interactions.
7. State management – application state, session state, server controls state.
8. .NET web applications security, authentication and authorization.
9. Working with databases – basic concepts and supported technologies, controls and functions for database access.

Literature:
Online lectures (http://users.ue-varna.bg/vsulov and http://e-learn.ue-varna.bg).
E-Finance

10. Electronic banking. The essence of electronic banking. Types of electronic banking and chronology in its offering

11. Internet banking. Technology and organization of Internet banking. Types of systems for Internet banking. Advantages of Internet banking

12. Security and protection of Internet banking. Potential threats for Internet banking users. Methods for protection and authentication of users


Literature:

Server-Side Web Programming


17. Applications with web interface. PHP. Working with templates in PHP.

18. Web applications working with DBMS. Administration tasks.

19. AJAX technology. Web application security.

Literature:

Data Science


23. Team Data Science Lifecycle Process.

24. Data visualization tools
Literature:

Type of exam: e-test – 80 multiple choice questions covering all disciplines. Each question has one right answer. Each correctly answered question brings 1 or more points, because questions have different weights. Questions answered with a wrong answer do not decrease the total amount of points. The test is done within 3 hours.

23.03.2023 Head of the Department of Informatics:
(Prof. Julian Vasilev, PhD)