

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/BI/BAS Business and administration software

Certification Programme examination result:



74.44%

Certification Programme description:

Introduction to knowledge associated with computerization of business / administration: needs and potential for computerization in institutions (objectives of an institution, business areas, benefits of computerization), business requirements analysis, problem of information security; information and communication technologies solutions overview: information and communication infrastructure, software support for main business processes, software for enterprise management, complex ERP systems, other solutions based on information technologies (real time collaboration software, internet based communication solutions, mobile solutions, systems of authorization and access control, monitoring systems), customer relationship management - CRM systems: introduction and overview of CRM systems functionality, exemplary CRM systems (installation, configuration and system administration, customers, sales, graphs and reports, calendar and activities organization, auxiliary tools and interface organization), Internet telephony: VoIP technology, benefits and problems related to usage of Internet telephony, VoIP devices, Internet telephony market, VoIP in practice - using VoIP software and hardware

Certificate Programme version/revision: EITC/BI/BASv1r2



CERTIFICATE ID: EITC/BI/BAS/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/INT/ITAF Internet technologies and applications fundamentals

Certification Programme examination result:

 87.22%

Certification Programme description:

Websites: operating principles, WWW and HTTP architecture, web browsers (search mechanisms, image search), secure login to the services (authorization and authentication, SSL certificates); Creation of a simple website: the basics of HTML and CSS; Network dataflow: FTP, web services for file sharing, networking basics (IP, Wireless, Voice over Internet Protocol), text terminals telnet protocol, SSH protocol, remote connection applications; Efficient searching for information on the web: online maps applications, open encyclopedia (content co-authoring); advertising portals, online videos, news on the Internet, Internet translators (operation mechanisms, content translation); Internet communication tools: text messaging, electronic mail (theoretical fundamentals), online collaboration systems (Google Apps), video and audio communicators; Information society: definition, groups, blogs, Web 2.0 paradigm; Advertising on the Internet: advantages and disadvantages, contextual advertising, Google AdWords, Google AdSense, basics of web positioning; Formal aspects of information processing on the Internet: legal acts and regulations concerning processing of information on the Internet, copyrights

Certificate Programme version/revision: EITC/INT/ITAFv1r2



CERTIFICATE ID: EITC/INT/ITAF/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/CG/APS Raster graphics processing software (Adobe Photoshop)

Certification Programme examination result:



77.78%

Certification Programme description:

Introduction: downloading and installation of application, basic concepts (bitmap graphics, resolution standards, compression); User interface: workspace, commands, palettes, preferences, keyboard shortcuts, navigation through a document, views; Image parameters: rotation, cropping, histogram correction, noise blurring, sharpness improvement, color correction, examples (red eye effect removal, adjusting hue and saturation, irises, object geometry corrections); Photomontage: design analysis, editing tools: pen, layers (working with multiple layers, editing, locking, transformations, layer properties, alpha channel), selections (selections stored in files), manual image adjustments (tools, brushes, light and shadow adjustment); Portrait retouching: eyes (hue/saturation, smudge tool), mouth, teeth (sharpening, unsharp mask), skin (eyedropper tool, clone stamp tool, blur tool), hair (chiaroscuro); Silhouette retouch: appearance modification, needed tools (liquify filter, density, liquify panel, pucker tool, bloat tool, reconstruct tool); Website graphics elements: basic aspects (web safe palette, dimensions, fonts, photos), vignette, vector objects, layer style (elements styling, color, gradient, shadow, glow), text objects, small graphics elements, styles, actions (batch sequence), images export (image size, cutting); Print publishing: working on a print publication (image styling, print area, scaling, typography in print publication), offset printing (reproduction of images)

Certificate Programme version/revision: EITC/CG/APSv1r2



CERTIFICATE ID: EITC/CG/APS/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/CN/CNF Computer networking fundamentals

Certification Programme examination result:

 86.67%

Certification Programme description:

Introduction: basic concepts of computer network, models of computer networks, types of network implementations, network communication paradigms (circuit-switched networks, packet-switched networks, network communication paradigms comparison); Network topologies: review of network topologies (point-to-point - P2P topology, bus topology, star topology, ring topology, tree topology, mesh topology, mixed topologies), topologies classification (linear topologies, centralized topologies, decentralized topologies), network topologies at different network abstraction layers; Layers model of network communication: ISO/OSI reference model for layers, simplified layer model of network; Technologies and protocols of media layers: local area network [LAN] (Ethernet - physical layer, data link layer), wide area network [WAN]; Network devices operating in media layers: network interface cards (NIC), repeaters, network hubs, bridges, switches, other network devices; Wireless networks: radio frequency and frequency sharing techniques (FDMA - frequency division multiple access, TDMA - time division multiple access, CDMA - code division multiple access), wireless LAN [WLAN] (WiFi, Bluetooth), mobile networks - mobile technologies (mobile standards); Internet - network layer protocols: data encapsulation and transmission, the IP protocol, IPv4 (packet construction, IPv4 addressing, subnetting and supernetting), IPv6, ICMP control protocol, Internet - transport protocols (TCP - TCP segment structure, UDP); Application layer - network services: e-mail (SMTP, POP3, IMAP), web services - HTTP, file transfer - FTP

Certificate Programme version/revision: EITC/CN/CNFv1r2



CERTIFICATE ID: EITC/CN/CNF/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/BI/TF Telework fundamentals

Certification Programme examination result:



80%

Certification Programme description:

Introduction to telework: flexible forms of employment in the current labor market situation, a review of the telework definition, telework history; Telework and its organizational forms: types of telework (telework at home, telework performed outside the place of residence), telework and outsourcing, the personality-characterological portrait of teleworker, telework and disabled person; Telework SWOT analysis: strengths of telework (telework benefits from the employer's perspective, the strengths of telework for the teleworker), telework weaknesses, opportunities, threats; Psychosocial aspects of telework: psychological factors of telework, telework social conditioning; Companies transformation process: ICT in modern enterprises, required telework equipment; Information technologies for telework (software): internal communication systems, internal publishing systems, internal collaborative systems (Google Apps as a tool for communication and collaboration, Microsoft Office Sharepoint for communication and employees management); Information technologies for telework (hardware): portable computers, mobile devices, wireless Internet access, VoIP telecommunications systems, GPS location systems; Telework in the world: telework in USA, telework in EU, global perspective

Certificate Programme version/revision: EITC/BI/TFv1r2



CERTIFICATE ID: EITC/BI/TF/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/DB/DDEF Databases and data engineering fundamentals

Certification Programme examination result:

 83.33%

Certification Programme description:

Introduction: database requirements, characteristics of databases, database technology, data model, database systems (RDBMS), interaction and communication with the database and implementation technology of database applications (communications architecture); Relational databases: data structure, integrity constraints, data operations, data representation (rules of entities transformation into relational model); Introduction to SQL query language: SQL as a declarative language, database queries (projection, expression, aliases, duplicates elimination, sorting results of a query, selection); preparation of a laboratory environment; SQL functions: aggregate functions, operators, set operators (join, outer join), subqueries (subqueries types), insertion of tuples into relation, modification and deletion of tuples from relation; Microsoft Office Access: database creation (defining relationships between tables, field formatting), queries, reports wizard, forms, external data (data export, data import); Artificial Intelligence: decision support systems (expert systems, data mining), semantic networks; Normalization: normal forms (first normal form, second normal form, third normal form)

Certificate Programme version/revision: EITC/DB/DDEFv1r2



CERTIFICATE ID: EITC/DB/DDEF/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:
www.eitci.org/validate



DATE OF ISSUE:
March 2020
Brussels, Belgium
European Union

CERTIFICATE

Bartosz Wawrzkowicz

Has successfully completed test requirements of
The European Information Technologies Certification Programme

EITC/BI/MSD10 Office software fundamentals (Microsoft Office 2010)

Certification Programme examination result:



61.67%

Certification Programme description:

> Microsoft Office Word: Introduction: main window, ribbon, Microsoft Office Button, Quick Access toolbar, printable and nonprintable characters, ruler, paragraph, indentation, margins, navigation, keyboard shortcuts; Document creation and edition: simple editing (copy, paste, cut), text formatting (font type, style, size), text alignment, line spacing, bullets and numbering (multilevel lists), auto-formatting (styles, table of contents, footnotes); Tables: creation methods, selection in tables, automatic formatting, table properties, text in a cell, AutoFit, cell size adjustment, graphical formatting; Objects in document: images (inserting and formatting), shapes (shape selection menu, categories of shapes, shape formatting, text in shapes), footer and header, SmartArts (inserting, categories, editing and formatting) > Microsoft Office Excel: Introduction: basic definitions and concepts (cell, cell edition, formulas), sample formulas, cell references (relative, absolute), cell formatting (number formats, graphical formatting); Usage of spreadsheets in business: sample formulas and functions (basic, statistical, financial, etc.), pivot tables (creation, filters, row and column labels, values, functionality), data grouping, data sorting, data validation (validation criteria, messages); Charts: chart creation, chart data, chart types, chart as an object (design, layout and format tabs), chart graphical and 3D formatting, sample charts; Excel options, module installation and usage (Solver tool example); Visual Basic language in Excel: basic concepts in VB (variables and arrays, procedures and functions, conditional statements, loops, cell and sheet access), macros (VB editor, defining events, creation, running and examples of macros) > Microsoft Office Power Point: Introduction: main window, slide, notes, fields on a slide; Creating a presentation: title slide, creating and editing a slide (types of slide layouts), themes (theme editing), slide show; Objects on a slide: inserting and editing objects, usage examples (formatting, many shapes insertion, shape connectors), objects overlapping, editing objects (shapes, SmartArts, images, tables); Object animation and transitions between slides: animation definition, animation modification (custom animation, auto-preview, animation effects, animation parameters, timing, triggers), adding and editing transitions between slides (single transition, transition parameters); Spell checking in MS Office (error corrections, dictionary); Slide Sorter view (slide operations: move, duplicate, copy, paste, delete); Printing (print types); Help in Microsoft Office (search for help topics, online and offline mode)

Certificate Programme version/revision: EITC/BI/MSD10v1r1



CERTIFICATE ID: EITC/BI/MSD10/KVG20004459

To validate authenticity of this certificate or review its
programme and test results scan/click QR code or visit:

www.eitci.org/validate



DATE OF ISSUE:

March 2020
Brussels, Belgium
European Union