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*Theory test  
of the centralised professional qualification  
exam*

## Professional qualification Computer systems technician

*June 2018*

Instructions on how to complete the theory test of the professional qualification exam

1. The test set consists of tasks and answer sheets.
2. Before starting with the tasks, please write the following on the answer sheet:
  - ☐ Name, Surname
  - ☐ Educational institution
  - ☐ Group
3. Use a blue or black pen to fill in the answers.
4. Do not use a whiteout in the answer sheets.
5. You can complete the tasks in an order of your choice.
6. On the answer sheet, in the tasks 1 to 70 mark only one correct answer by a cross in the corresponding square. The answer should be clearly visible.
7. If you've made a mistake, correct your answer by colouring in the square of your first answer and then crossing another one.
8. In the tasks 71 to 80, write your answers in the designated places on the answer sheet.
9. Do not make any notes in the test set.
10. Duration of the test: 100 minutes.
11. After finishing, please give the test set to the exam commission.

PARAUGS	
2.	3.
1 <input type="checkbox"/>	1 <input checked="" type="checkbox"/>
2 <input checked="" type="checkbox"/>	2 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>

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1.	Where should the anti-static bracelet be connected to when repairing a computer?	<ol style="list-style-type: none"> <li>1. To motherboard supply connector</li> <li>2. To the metallic part of computer system block</li> <li>3. To table surface</li> <li>4. To the right contact of a 220V socket</li> </ol>
2.	What should be done first if the hard drive is constantly working while an application is active?	<ol style="list-style-type: none"> <li>1. Change power supply unit</li> <li>2. Change hard drive</li> <li>3. Increase RAM volume</li> <li>4. Reinstall the application</li> </ol>
3.	What does the abbreviation HDMI stand for?	<ol style="list-style-type: none"> <li>1. High Desktop Management Interface</li> <li>2. High Direct Media Interface</li> <li>3. High-Definition Multimedia Interface</li> <li>4. High Desktop Multimedia Interface</li> </ol>
4.	Which device is intended for both data input and output?	<ol style="list-style-type: none"> <li>1. Touch screen</li> <li>2. Scanner</li> <li>3. Printer</li> <li>4. Web camera</li> </ol>
5.	What is put on laser printer roller during printing?	<ol style="list-style-type: none"> <li>1. Ink</li> <li>2. Paper</li> <li>3. Toner</li> <li>4. Rubber</li> </ol>
6.	How does the MIMD processor architecture work?	<ol style="list-style-type: none"> <li>1. One command flow and one data flow</li> <li>2. Many command flows and one data flow</li> <li>3. One command flow and many data flows</li> <li>4. Many command flows and many data flows</li> </ol>
7.	Which colour is not used in the RGB standard?	<ol style="list-style-type: none"> <li>1. Red</li> <li>2. Yellow</li> <li>3. Green</li> <li>4. Blue</li> </ol>
8.	Which sound synthesis method is used in sound cards "Wave Table"?	<ol style="list-style-type: none"> <li>1. Musical instrument sound samples</li> <li>2. Special sound signal generators</li> <li>3. Special software</li> <li>4. External sound sources</li> </ol>
9.	For which comparability was the Twain standard made?	<ol style="list-style-type: none"> <li>1. Scanner and application comparability</li> <li>2. Printer and application comparability</li> <li>3. Modem and application comparability</li> <li>4. Monitor and application comparability</li> </ol>
10.	What types of power supply unit connectors are intended for HDD/SSD and CD/DVD device connection?	<ol style="list-style-type: none"> <li>1. Two connectors- big one and small one (each with five contacts)</li> <li>2. Two connectors - Molex and NLX (each with six contacts)</li> <li>3. Two connectors- 4 contact MOLEX and 15 contact SATA connector</li> <li>4. Two connectors - big SFX and small SFX (each with four contacts)</li> </ol>
11.	Which method protects stationary computer from overvoltage during a thunderstorm?	<ol style="list-style-type: none"> <li>1. Turning on the computer</li> <li>2. Turning off the computer</li> <li>3. Power supply cable disconnection from computer</li> <li>4. Computer disconnection from LAN</li> </ol>

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12.	Data virtualisation technology in which several discs are combined with one logical element is ...	<ol style="list-style-type: none"> <li>1. SATA</li> <li>2. RAID</li> <li>3. SMART</li> <li>4. SCSI</li> </ol>
13.	Data transfer rate unit is...	<ol style="list-style-type: none"> <li>1. kilobyte</li> <li>2. nanosecond</li> <li>3. megahertz</li> <li>4. bits per second</li> </ol>
14.	Which programme is started by key combination CTRL +ALT + DEL, if the computer is not attached to a domain?	<ol style="list-style-type: none"> <li>1. It deletes selected file without moving it to floppy disk</li> <li>2. It starts the programme Windows explorer</li> <li>3. It starts the programme Internet explorer</li> <li>4. It starts the programme Task manager</li> </ol>
15.	What is an advantage of Linux compared to Windows operating systems?	<ol style="list-style-type: none"> <li>1. Availability of free source text</li> <li>2. Security as well as excellent speed which allows to work with large data</li> <li>3. It can be used in large computer networks</li> <li>4. It has excellent graphics</li> </ol>
16.	An operating system which allows several users to work with the computer system at the same time is...	<ol style="list-style-type: none"> <li>1. An embedded operating system</li> <li>2. A distributed operating system</li> <li>3. A multi-user operating system</li> <li>4. A multi-task operating system</li> </ol>
17.	What happens to an encrypted file if it is copied to another partition?	<ol style="list-style-type: none"> <li>1. The file keeps the encryption</li> <li>2. The file loses the encryption</li> <li>3. It loses the encryption if it is copied by the administrator</li> <li>4. It does not lose the encryption if it is copied to NTFS partition</li> </ol>
18.	Which one of the given is not a file system developed by Microsoft?	<ol style="list-style-type: none"> <li>1. NTFS</li> <li>2. FAT32</li> <li>3. exFAT</li> <li>4. Ext4</li> </ol>
19.	Minimum recommended number of partitions on which Ubuntu can be installed is ...	<ol style="list-style-type: none"> <li>1. 3</li> <li>2. 2</li> <li>3. 1</li> <li>4. 4</li> </ol>
20.	Which are extensions of Windows package files?	<ol style="list-style-type: none"> <li>1. *.exe, *.com</li> <li>2. *.zip, *.rar, *.7z</li> <li>3. *.cmd, *.bat</li> <li>4. *.sh</li> </ol>
21.	What is LILO?	<ol style="list-style-type: none"> <li>1. Application</li> <li>2. Driver</li> <li>3. Bootmanager</li> <li>4. Graphical interface standard</li> </ol>
22.	Which command can be used to divide hard drive in logical discs?	<ol style="list-style-type: none"> <li>1. FORMAT</li> <li>2. FDISK</li> <li>3. SMARTDRV</li> <li>4. HIMEM</li> </ol>
23.	Which commands are intended to be performed on a remote network machine?	<ol style="list-style-type: none"> <li>1. Ftp</li> <li>2. Rcp, rsh, rstart</li> <li>3. Commands that start with a letter „r“</li> <li>4. Share -F rfs, net send</li> </ol>

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24.	Which one is a digital safety certificate group?	1. FireWall 2. SSL 3. HTTP 4. Antivirus software
25.	Standard mechanism for certificate status check is...	1. AI 2. CA 3. CRL 4. MBR
26.	Extensible automation Microsoft tool which consists of a cover with a set of commands interface and script language is...	1. Register 2. Windows PowerShell 3. Command line interpreter 4. CMD
27.	Shell command for work with folder "Roaming" is...	1. Shell:dpapiKeys 2. Shell:AppData 3. Shell:Common AppData 4. Shell:Common Programs
28.	Command for opening Windows component "Performance Monitor" is ...	1. Gpedit.msc 2. Lusrmgr.msc 3. Perfmon.msc 4. Ecpol.msc
29.	Programmes which can be used for free but only for limited time are...	1. Commercial programmes 2. Applications 3. Free programmes 4. Shareware
30.	Which system shell does Windows operating system use?	1. Windows maker 2. Windows explorer 3. DOS shell 4. Norton Comander
31.	What does the IEEE 802.3 standard describe?	1. Logical Link Control protocol 2. Token ring networks 3. Fibre optic networks 4. Ethernet type networks
32.	What is the main advantage of UDP protocol compared to TCP?	1. UDP protocol is slower 2. UDP protocol does not create connections with end units 3. UDP protocol cannot be connected to IP protocol 4. TCP works in Windows environment but UDP - in Linux
33.	What does HTML stand for?	1. Hyper Text Mail Language 2. Hyperlink Transfer Markup Language 3. Hyperlink Text Mail Language 4. Hyper Text Markup Language
34.	What is a trojan?	1. A programme for connection of external devices to computer 2. A graphic editor 3. A programme which is made with the aim to gain access to a user's computer or data without the user knowing about it 4. A virus programme which is distributed via e-mail and which damages files in infected computers

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35.	What are cookies necessary for?	<ol style="list-style-type: none"> <li>1. To leave a small amount of information in the page visitor's browser</li> <li>2. To ensure computer downtime</li> <li>3. To code data</li> <li>4. To facilitate online commerce - for bonus points</li> </ol>
36.	What is mostly used for the description of appearance of web pages made in HTML and XHTML languages?	<ol style="list-style-type: none"> <li>1. Calculated style sheets</li> <li>2. Hard style sheets</li> <li>3. Visual basic sheets</li> <li>4. Cascading style sheets</li> </ol>
37.	Which CSS characteristic is used for the style changes of a link that has been already clicked on?	<ol style="list-style-type: none"> <li>1. a:link</li> <li>2. a:visited</li> <li>3. a:vlink</li> <li>4. a:hover</li> </ol>
38.	HTML document contains the code <body bgcolor = "blue">. What is bgcolor?	<ol style="list-style-type: none"> <li>1. Attribute</li> <li>2. Style</li> <li>3. Tag</li> <li>4. Descriptor</li> </ol>
39.	How is it possible to inform a user about incorrect interpretation of a tag in a browser or to give him additional information about the element to be interpreted?	<ol style="list-style-type: none"> <li>1. With ALT attribute</li> <li>2. With FRAME</li> <li>3. With IFRAME</li> <li>4. It is not possible without the use of scripts</li> </ol>
40.	What can styles described in a .css file be used for?	<ol style="list-style-type: none"> <li>1. For several HTML documents</li> <li>2. For only one definite HTML document</li> <li>3. Only for description of styles of another .css file</li> <li>4. Only for description of styles of index.html documents</li> </ol>
41.	CSS (Cascading Style Sheets) are...	<ol style="list-style-type: none"> <li>1. Set of parameters for representation of HTML elements</li> <li>2. Tables represented in a WEB page</li> <li>3. Set of parameters for creation of tables</li> <li>4. Style description for table formatting</li> </ol>
42.	What does CSS description do: A {color: #3366AA; font-size: 18pt}?	<ol style="list-style-type: none"> <li>1. Redefine hyperlink standard style</li> <li>2. Redefine appearance style of the letter A</li> <li>3. Redefine style of a visited hyperlink</li> <li>4. Defines a new style class called A</li> </ol>
43.	What type of coordinates can be determined for elements in HTML language to be placed in a WEB page?	<ol style="list-style-type: none"> <li>1. Absolute and relative</li> <li>2. Only relative</li> <li>3. Only absolute</li> <li>4. Combined</li> </ol>
44.	What is the meaning of <META> tag in HTML language?	<ol style="list-style-type: none"> <li>1. It contains service parameters which are "studied" by the browser before showing HTML document</li> <li>2. It describes styles</li> <li>3. It contains WEB page title</li> <li>4. It contains description of the WEB site map</li> </ol>
45.	What does the JavaScript code: break me, do?	<ol style="list-style-type: none"> <li>1. Switches off JavaScript interpretation</li> <li>2. Brakes the loop and goes to "me" sign</li> <li>3. Shows error</li> <li>4. Turns on JavaScript interpretation</li> </ol>

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46.	How many parameters can be given to a function?	1. Exactly as much as it is determined in function definition 2. As much as it is determined in function definition or less 3. As much as it is determined in function definition or more 4. Any amount
47.	Which protocol is used to determine MAC or interface address from IP address?	1. IP6 2. POP3 3. ARP 4. FTP
48.	How many OSI architecture levels are there in total?	1. 7 2. 9 3. 6 4. 8
49.	To which OSI model layer does IP protocol belong?	1. Physical layer 2. Network layer 3. Channel layer 4. Transport layer
50.	What is the proxy server called, which is located between client's applications and the real server?	1. Proxy 2. HUB 3. DNS 4. NIC
51.	Which command is intended for copying a file from one computer to another in a network in Linux environment	1. telnet 2. copy 3. rcp 4. route
52.	What does one entry in Relation data base consist of?	1. several tables 2. several fields 3. only one field 4. two cells
53.	Which of the table link types cannot be realised directly?	1. One to one 2. One to many 3. Many to many 4. Many to one
54.	What has to be done if it is necessary in a query to carry out data selection from table in such way that the values of one field correspond to two criteria at the same time?	1. Criteria has to be written in Criteria rows below one another 2. Criteria has to be written by putting the logical operator OR between them 3. Criteria has to be written by putting the logical operator AND between them 4. The selection has to be carried out in accordance with one criteria, then the criteria has to be changed and another selection - carried out
55.	What is a data base management system?	1. A set of files in which data is stored 2. Programme tools for different actions with database 3. A special programme which is intended only for the creation of Data base tables 4. A programme for report formation

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56.	What is an entity in ER diagrams?	<ol style="list-style-type: none"> <li>1. A real or imaginable object about which information has to be stored</li> <li>2. Source of information</li> <li>3. Information receiver</li> <li>4. Data storage</li> </ol>
57.	Which operation can be used to change table structure?	<ol style="list-style-type: none"> <li>1. CREATE</li> <li>2. INSERT</li> <li>3. ALTER</li> <li>4. UPDATE</li> </ol>
58.	Which one of these is a database management system (DBMS)?	<ol style="list-style-type: none"> <li>1. Microsoft Office Excel</li> <li>2. Linux UBUNTU</li> <li>3. MySQL Server</li> <li>4. Microsoft Windows Server 2008</li> </ol>
59.	What should LCD or LED monitor refresh rate be?	<ol style="list-style-type: none"> <li>1. 75 Hz or more</li> <li>2. 60 Hz or more</li> <li>3. 50 Hz or more</li> <li>4. 30 Hz or more</li> </ol>
60.	Electronic signature system uses Qualification certificates. Reliable provider of certification services may annul the qualification certificate provided by it, ...	<ol style="list-style-type: none"> <li>1. If there is a reason to believe that electronic signature software is being used on an infected computer;</li> <li>2. If there is a reason to believe that the electronic signature software developer warranty has expired.</li> <li>3. If there is a reason to believe that the electronic signature software is being used in another data transfer network</li> <li>4. If there is a reason to believe that electronic signature data is used without notice of the signer</li> </ol>
61.	Who can carry out an inspection for information resources and technologies that infrastructure owner or holder has included in the critical infrastructure?	<ol style="list-style-type: none"> <li>1. Data State Inspectorate without prior notification to the owner of critical infrastructure</li> <li>2. Security incident prevention institution which informs in written form about the time and duration of the inspection not later than 48 hours before the start of the inspection</li> <li>3. Network operator who has designed and installed the critical network infrastructure</li> <li>4. Cyber security supervision department without prior warning to anyone</li> </ol>
62.	How is quality management system standard called?	<ol style="list-style-type: none"> <li>1. ISO 900</li> <li>2. ISO 9000</li> <li>3. ISO 9001</li> <li>4. ISO 9010</li> </ol>
63.	How many minutes is it advised to rest after a two hour work at the computer?	<ol style="list-style-type: none"> <li>1. 5 min.</li> <li>2. 10 min.</li> <li>3. 15 min.</li> <li>4. 20 min.</li> </ol>
64.	On which issues should the employer consult its employees?	<ol style="list-style-type: none"> <li>1. On creation of a work payment system</li> <li>2. On evaluation of work environment risks</li> <li>3. Strategic development of the company</li> <li>4. On creation of company's accounting system</li> </ol>
65.	What is the maximum trial period when concluding a contract with an employee?	<ol style="list-style-type: none"> <li>1. One month</li> <li>2. Two months</li> <li>3. Three months</li> <li>4. Four months</li> </ol>

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66.	Who determines the procedure for determining and transferring minimum monthly wage?	1. Employer 2. Accountant of the company 3. Saeima of the Republic of Latvia 4. Cabinet of Ministers
67.	In which programme development environment is it possible to import files (e.g. pictures) to any other application?	1. New Project 3. Select Resource 3. Import Source 4. Insert Source
68.	Which one of the given is not an object-oriented programming language?	1. C 2. Java 3. Python 4. PHP
69.	What is an algorithm?	1. A very precise and clear explanation on how to act in order to reach a goal or solve a problem 2. Command line in which some of the listed actions can be left unexecuted 3. A detailed description of actions in order to come closer to a solution 4. Set of actions to do calculations
70.	What is the difference between procedures and functions?	1. Functions differ from procedures in that the result of their action is returned to the main part of the programme which can be assigned to the variable 2. Procedures calculate arithmetic and physical functions but functions are executed 3. Procedures are executed but functions calculate arithmetic and physical functions 4. Procedures can be processed in global variables but functions - only local

**See the tasks from 71 to 80 on the answer sheet!**

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<b>Answer sheet of the theory test of the centralised professional qualification exam June 2018</b>									
Name, surname of the examinee				Educational institution				Group	
<b>Evaluation:</b> For each correct answer in tasks 1 to 70 - 1 point For each correct answer in tasks 71 to 80 - max. 3 points									
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4

Total: \_\_\_\_\_

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**First name, surname of the examinee**

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No.	Advanced tasks	Answer	Received points
71.	Which computer devices are definitely necessary to carry out POST procedure?		
72.	BIOS/UEFI password has been forgotten. How can it be removed? (Give 3 ways)	1. 2. 3.	
73.	Write three types of I/O organisation!	1. 2. 3.	
74.	Write loading file names of the Linux operating system!		
75.	What is Wild List collection?		

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76.	Programme group which usually is written in the ROM of IBM or compatible personal computers is called...		
77.	If internet does not work in internet browser but the necessary server responds to the command ping, then...		
78.	Which device combines segments so that data transfer between computers in one segment does not disturb data transfer in another segment?		
79.	To which OSI level does DNS (Domain Name system) relate to?		
80.	What is the difference between link and key field?		

**Total points for the theoretical part:**

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**Evaluated by:** \_\_\_\_\_  
first name, surname, signature

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