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**ОТЧЕТ**

**UNIT 12**

«The Internet»

по дисциплине:

**Профессиональная подготовка на английском языке**

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| **Исполнитель:** |  | Е. В. Петрович | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| студент группы 0ВМ92 |  | Дата сдачи: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |  |  |  |
|  |  |  |  |
| **Руководитель:** |  | О. А. Бельснер | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Старший преподаватель |  | Дата проверки: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
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**Starter**

1. Match each of the Internet services in Column A with the uses in Column B.

IRC - chatting to other users in real-time

MOOs - taking part in simulations in a shared environmentemail - sending and receiving messagesFTP - downloading a file from a server

WWW - browsing webpagesTelnet - logging on to your computer at a distance

Usenet - accessing newsgroups

**Reading**

2. Computer-Mediated Communication (CMC). Work in groups of three, A, B, and C. Read one of these examples of CMC and complete this table.

|  |  |  |  |
| --- | --- | --- | --- |
| Extract | A | B | C |
| Type of CMC | ? | ? | email |
| Number of participants | Four | Three | Two |
| Topics | A game | The Star Wars movie | Top 10 albums |
| Synchronous or asynchronous | Synchronous | asynchronous | asynchronous |
| Special features of this type of CMC | ? | ? | ? |

3. Compare results orally with the others in your group. Complete a table for each of the other extracts using the information the others provide.

**Language work**

4. Rewrite each of these warnings according to the prompt. Add a reason to the warning where you think it appropriate.

1. Avoid giving open access to PCs. - Appropriate in all public places like offices, libraries, etc.

1. Never use your own floppies on these machines. - Appropriate to cases when there is a danger to infect computers with viruses and other malware.
2. You must not bring coffee here. - Appropriate to labs that work with dangerous materials like poisons.
3. Don't give any financial information in a chat room. - Appropriate to financial offices such as banks, stock exchanges, etc.
4. Always keep your password secret. - Appropriate to everywhere and ever.
5. Use updated antivirus software. - This may be an antivirus software warning.
6. Always use a computer reached normal room temperature. - This may be a phrase from the computer user guide.
7. Never remove cards from their antistatic packing until required. - Warning on the box of cards.
8. Use an IC extraction tool rather than a screwdriver. - Appropriate in the assembling guide.
9. You must not work on a computer without ensuring the power is switched off. – Appropriate in a repair and maintenance workroom.

5. Translate some of the rules for computer use in your own college or university into English. Compare your translations with others in your group and agree on the best English versions.

Don't use flash drives unchecked by antivirus software.

Never install unlicensed software.

Ensure the computer is switched off before going away.

Use only prescribed tools for assembly and disassembly operations.

**Problem Solving**

6. Choosing a free ISP Read these hints on choosing a free ISP. Then decide which of the options available offer the best deal to these users. Be prepared to defend your choice.

1. A household with a young family – for this user it is good Option D. The decisive factor for this user is the CyberPatrol feature because the young family likely has children, so this feature helps prevent them from accessing the inappropriate content on the Internet.
2. A small home-based business – Option C. Business needs to spread widely the information about itself and its products. The free webpage design service is very helpful for creating a website propagating this information worldwide.

1. Someone who enjoys online gaming - Option C. It is the only service providing free access to online multiplayer games.
2. Someone who doesn't want a lot of spam in their email – Option E, because it provides the email virus protection and junk email filters.

**Writing**

7. Write an article for a newsgroup of your choice. Keep it short and choose a meaningful reference name. Pass it to another student for a reply.

Our company has started developing a new spectrometer device. The main goals are a new appearance and more sophisticated software that allows the company to compete successfully on the market. Suggested that the software will use a deep learning technology for more accurately defining the calibration mathematical model. Thus, the new spectrometer could choose or adjust the calibrations depend on analyzed materials and won't require staff with comprehensive knowledge and experience in the spectrometry. The new appearance of the device will give the device a modern attractive look. The improved user interface will allow users more efficiently interacting with the device.

8. If you have access to newsgroups, browse one of the groups dedicated to computing. They have the prefix comp. Write a reply to one of the articles posted there. You need not post your reply unless you are confident it will be helpful. Ask your fellow students to read it first.

Article from

(<https://groups.google.com/forum/#!searchin/comp.lang.c$2B$2B/Qt%7Csort:date/comp.lang.c++/X_BpeAd6eGE/xlpRvWHQBwAJ>)

I still sometimes write C-like casts like  
if (MyPointer == (classPincoPallo \*)(0)) {}  
then QT ide slams me for "old styled" fashion, so I rewrite  
if (MyPointer == static\_cast <classPincoPallo \*> (0)) {}  
and it again complaints until i correct further to  
if (MyPointer == static\_cast <classPincoPallo \*> (nullptr)) {}  
now, WHAT exactly is the nullptr ? Is it really different  
from ZERO (all-zeroes-bit pattern of the word size) ?  
If it is a zero, why the ide complaints as it was just  
casted in a zero of a proper type ?  
if it is not zero, is it some "system-dependent" numeric  
constant ?  
Why should it better than zero ?  
Is it a bigger than bigger ram address value ?  
I'm confused about the pointer "nullity" management.  
Long ago casting a 0 had been enough :\

Reply

The nullptr is a value of type std::nullptr\_t. The class of this type has implicit castings to pointers of other classes. Whereas ‘0’ is a literal of integer type. When you assign to the pointer the ‘0’ value there goes the implicit type casting from integer to std::nullptr\_t. It is a valid operation, but it isn’t safe. Imagine, you have two overloaded functions receiving one – an integer value and other – a pointer as the parameter. Implying void pointer, you set the parameter at 0. Then which function should be called? In this case, you can get a hard detectable error in the code. Separating types into integer and pointer and avoiding implicit conversions you can make your code safer.

**Specialist reading**

A. Find the answers to these questions in the following texts.

|  |  |  |
| --- | --- | --- |
|  | Questions | Answers |
| 1 | What purpose does the Internet address have apart from identifying a node? | The Internet address identifies a path that gateways can use to route information from one computer to another. |
| 2 | What data-delivery systems are mentioned in the text? | In the text are mentioned Ethernet and X.25 data-delivery systems. |
| 3 | What do IP modules need to know about each other to communicate? | They need to know each other’s Internet addresses. |
| 4 | How many Internet addresses does a gateway have? | A gateway has as many addresses as a number of networks it connects. One address on each network. |
| 5 | What does UDP software do? | The UDP software provides the final routing for data within a system from the receiving port to an application to which the data is intended. |
| 6 | When does the TCP part of TCP/IP come into operation? | The TCP comes into operation once data is delivered to the correct Internet address and application port. |
| 7 | What processes are performed by TCP software to provide reliable stream service? | The TCP software looks for responses and replaces data blocks if they are missed. |
| 8 | What standard protocols are mentioned which are used to deal with the data after TCP brings it into the computer? | In the text are mentioned two protocols FTP and SMTP. |

B1. Match the terms in Table A with the statements in Table B.

Table A

|  |  |
| --- | --- |
| a | Internet address |
| b | Resolution Protocol |
| c | Look-up table |
| d | Gateway |
| e | User Datagram Protocol |
| f | Transmission Control Protocol |

Table B

|  |  |
| --- | --- |
| I | Standard used for software that routes data through a gateway. |
| II | Standard used by software that moves information to the correct application on the receiving system of a network. |
| III | Standard used by software that manages communication exchanges between computers on the Internet. |
| IV | A 32-bit number identifying a node on an IP network. |
| V | Stored information used to route data through a gateway. |
| VI | A device for connecting dissimilar networks. |

Answers

|  |  |
| --- | --- |
| Standard used for software that routes data through a gateway. | Resolution Protocol |
| Standard used by software that moves information to the correct application on the receiving system of a network. | User Datagram Protocol |
| Standard used by software that manages communication exchanges between computers on the Internet. | Transmission Control Protocol |
| A 32-bit number identifying a node on an IP network. | Internet address |
| Stored information used to route data through a gateway. | Look-up table |
| A device for connecting dissimilar networks. | Gateway |

B2. Mark the following statements as True or False:

|  |  |  |
| --- | --- | --- |
| a | Internet addresses are an integral part of the IP protocol. | True |
| b | Internet addresses can be written as a series of numbers. | True |
| c | UDP software provides the final routing for data within the receiving system. | True |
| d | UDP recovers packets that aren't successfully delivered. | False |
| e | TCP only works with packet-switched networks. | False |
| f | TCP only works when it is combined with IP. | False |