11.1.2021, **Total time: 30 minutes**

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Try to answer briefly, concisely and to the point.   
**It is forbidden to use study materials, Google and other not only Internet resources!**

1. **(10 points)**  
   Describe and explain principle of HTTP functionality. Explain the purpose and write a particular example of HTTP message content.   
   - HTTP is a protocol which allows the fetching of resources.

* The purpose is to provide a way for web browsers and servers to communicate with each other.
* Example:
* HTTP GET and REQUEST and Response

1. **(10 points)**  
   Describe rules of basic syntax of HTML code and their elements. Which elements contains the HTML code (in general) and what is the basic structure of HTML document?  
     
   - Structure of HTML is:

**<!Doctype html>**

**<html>**

**<head> </head>**

**<body> </body>**

**</html>**

* **I think <html> elements contains the html code**
* Basic structure of HTML document have 2 parts: Head and Body

1. **(10 points)**  
   What is XPath and what is the purpose of it? What are the constructional parts (3) of XPath query and how are they use? Write example of XPath queries.

* XPath – XML Path Language is a query language for select from XML file.
* The purpose is address part of XML file.
* Example

<game category=”horror”>

<title> Outlas </title>

<point> 95 User Score </point>

</game>

1. **(10 points)**  
   Simply specify (target of attack, principle of attacking, defend) following types of attack among internet applications: PHP injection  
   PHP injection is a level vulnerability can allow an attacker to perform kinds of attack

Target: security hole,

Defend: You can use many method in code for safe security and prevent for many attack

1. **(20 points – 10x2 point)**  
   Specify technology domain and purpose (meaning) of technology/approach/application … of given abbreviations/name (answer simply, directly into the list).

ARPANET: Advanced Research Project Agency Network  
XML: Extensible Markup Language  
CERN:  
LESS: CSS preprocesor – fromspecial syntax to output in pure  
Mockup: website mockup - Fully visual model designed for presentation and

comments  
JSON: JavaScript Object Notation  
XSD:**XML Schema Definition - describe the elements in an Extensible Markup Language (**[**XML**](https://en.wikipedia.org/wiki/XML)**) document.**  
Polling:  
API: Application programming interface  
SPAM: SPAM Mail