Program

of "Information and Educational Technologies" qualifying test for PhD students

For information of PhD students and applicants, "Information and Educational Technologies" test is scored from 0 to 20 points, out of which

- \checkmark 8 points can be scored from the material prepared during the course
 - a professional article in the appropriate format (0-3 points),
 - a personal web-page (0-3 points),
 - presentation of the report (0-2 points),
- \checkmark remaining 0-12 points can be scored from the test.

The passing score is 12.

Operating systems

Computing system, operating system, resource management. Main operating systems (Windows, Linux, iOS, Android). File systems. System and application software.

Text editors

- 1. Examples of text editors (Notepad, WordPad, MS Office` Word, Libre Office, LaTex)
- 2. Compliance with the requirements of the dissertation and other scientific publications (bok.am, springer.com, csit.am) using the example of different text editors
- 3. Introduction of LaTeX
- 4. Converting text. Using the Adobe Acrobat Reader/Writer software
- 5. Use of dictionaries and translation programs

Electronic tables (MS Office, LibreOffice)

- 1. Creating and inserting diagrams into a different document
- 2. Using built-in functions
- 3. The methods of document protection

Creating presentations (MS Office, LibreOffice)

- 1. Placement of various elements in the presentations
- 2. Using nested styles
- 3. Applying animation tools
- 4. Ways to save submissions

Network environment

- 1. The types of computer networks: local and global networks; networks architecture: circular, star-shaped, mixed grids; Internet
- 2. Connection and attachment equipment (types of modems: 3G/4G, RJ45, WiFi, LAN card, Bridge, Switch, Repeater)
- 3. Network settings (IP-addresses, netmask, gateway, DNS) (on the example of Windows OS)
- 4. Internet protocols (ftp, telnet/ssh, http, e-mail, VoIP)
- 5. Client Server concepts
- 6. E-mail: Outlook Express, MS Outlook, Mozilla Thunderbird e-mail programs and asnet.am

- 7. Internet resources: search systems, library systems, databases, social sites, chat rooms (Viber, Messenger, WhatsUp), scientific networks and their use (eduroam.am), etc
- 8. Cloud technologies on the example of asnet.am
- 9. Useful programs (App) for smartphones and tablets
- 10. Network Security

Creating a personal web page

- 1. Website structure
- 2. Basic elements of HTML language
- 3. CSS
- 4. JS
- 5. Introduction of PHP and MySQL
- 6. The simplest web-server