**PARTICIPANT'S SIGNATURE**

*(ATTENTION! DO NOT indicate your full name or identify yourself in any other way! Otherwise – you will be disqualified!)*

# OLYMPIAD TASKS
## in Economics (students)

**Question 1. Match the concept with its definition.**
**Write your answer as a sequence of numbers.**

| DEFINITION | CONCEPT |
|---|---|
| A. Digital assets backed by real currencies, commodities or other assets. Used for payments, investments and other purposes related to digital assets. | 1) Custody<br>2) Stablecoins<br>3) Initial Coin Offering<br>4) Virtual Assets<br>5) Management<br>6) Control |
| B. Digital means of representing value which can be traded or transferred digitally and can be used for payments or investments. | |
| C. Method of distributing digital assets which can be issued and/or transferred using distributed ledger technology (blockchain technology). | |
| D. Storing virtual assets or secret keys to virtual assets on behalf of another person. | |
| E. Conducting transactions and other legal actions by one person (representative) for the benefit and on behalf of another (represented) person. | |
| F. Ability to use a virtual asset or change its location. | |

**Question 2.** A step-by-step scheme for carrying out timely and reliable due diligence of VASP partners has been developed based on the FATF approaches. It is not prescriptive.
**Establish the sequence of implementation of activities included in the scheme for assessing and verifying a VASP partner.**
**Write down the answer as a sequence of numbers.**

1) Control over executing the transaction and its compliance with the law.
2) Determining whether virtual assets are transferred with a VASP partner.
3) Transferring information about the client and assets to the partner.
4) Verifying the legality of the VASP partner.
5) Identifying the VASP partner.
6) Agreeing the terms of the transaction with the client.

**Question 3**. Company X applied to the Bank with a request to transfer transaction passports (TP) from another credit institution to the bank in connection with its closure (license revocation). The TPs were opened in 2009 to receive loans in the amount of 17,000,000 monetary units from the parent Company X - a resident of Country G. (the ultimate beneficiary) to purchase fixed assets (building frame, production line). The specified TPs are supposed to be used to carry out transactions aimed at repaying loans to the parent company. After analyzing the financial statements of Company X, the beneficial ownership structure, the contracts were not accepted for servicing.
**Which of the following conclusions of the Bank are based on the analysis of the financial statements of Company X and led it to the decision to refuse servicing Company X?**

| Indicator | 20 21 | 20 22 | 20 23 |
|---|---|---|---|
| **ASSET**<br>**I. NON-CURRENT ASSETS** | | | |
| Intangible assets (rubles) | 628 000 | 706 000 | 975 000 |
| Fixed assets (rubles) | 1 578 000 | 1 894 693 | 1 958 749 |
| **LIABILITIES**<br>**II. CAPITAL AND RESERVES** | | | |
| Authorized capital (rubles) | 989 497 | 1 546 500 | 1 068 096 |
| Uncovered loss (rubles) | 7 479 340 | 8 386 070 | 7 068 895 |

(A) Legal entities - lenders (residents of Country G.) were reorganized at the time of filing the documents, which was not reported to the Bank.
(B) The loans received are properly reflected in the accounting of the organization and are comparable to the amount of net assets.
(C) The amount of transactions significantly exceeds the company's own funds.
(D) The company has a significant amount of uncovered losses and accounts receivable.
(E) The company is experiencing a decrease in the share of sales revenue in the company's total income, which remains stable.

**Answer options:**
1) (A) and (C)
2) (B) and (E)
3) only (C)
4) (D) and (E)
5) (B) and (C)

**Question 4.** The authorized bodies received a message about the issuance of a long-term unsecured loan without surety by a bank resulting in the need to analyze the financial condition of the enterprise to which the bank issued the loan.
The analysis was carried out based on the data of the enterprise's financial statements compared with the balance sheet data submitted to the tax inspectorate and the bank. Balance sheet items were grouped depending on the speed of their conversion into cash (payment) funds, and liability items - by the degree of urgency of payments:

A1 - the most liquid assets: cash, short-term financial investments - 50 thousand conventional monetary units;
A2 - quickly realizable assets: accounts receivable with short payment terms (except for overdue and doubtful), other current assets - 30 thousand conventional monetary units;
A3 - slowly realizable assets: inventories, accounts receivable with long payment terms - 450 thousand conventional monetary units;
A4 - assets which are difficult to sell: all non-current assets - 700 thousand conventional monetary units;
P1 - the most urgent liabilities: all current accounts payable, overdue loans - 210 thousand conventional monetary units;
P2 - current liabilities: loans and credits, excluding overdue ones - 420 thousand conventional monetary units;
P3 - long-term liabilities - 115 thousand conventional monetary units;
P4 - fixed assets: the company's equity capital - 54 thousand conventional monetary units.

**Which of the following statements correctly reflect the conclusions of the authorized body regarding the issued loan:**

(A) The company is quite solvent, but its liquidity (working capital ratio) is insufficient. The company's balance sheet contains few quickly realizable assets: inventory or short-term accounts receivable. The company only owns equipment, which is not easy to sell. A short-term loan may be issued.
(B) Despite the calculated current liquidity ratio, the cash flow from the company's operating activities is quite high. The loan was issued lawfully.
(C) The company's liquidity shows that the company will not be able to pay all its obligations on time, and the funds from the sale of all current assets will not be enough to pay current obligations. The loan was issued unlawfully.

**Question 5.** Financial intelligence was able to establish links between a criminal organization which used contracts with a state organization to carry out international trade in controlled substances (marijuana, cocaine) by delivering fuel via tanker trucks.
The background to the investigation was the acquisition of Company C, whose main activity was "transportation of goods within the country and international transportation," by spouses X and Y. After the acquisition of the company by spouses X and Y, it began to generate profits of approximately 8 times more. Once in the hands of this family, Company C increased both its assets and profits in a short time.
The turnover by product groups for the past year was:
- 21,700 conventional monetary units - sale of fuel;
- 7,000 conventional monetary units - other goods and services.

The markup by product groups for the past year was 7% (fuel) and 15% (other goods and services).
The turnover for the reporting period was:
- 22,200 conventional monetary units with a markup of 7% - sale of fuel;
- 35,000 conventional monetary units with a markup of 35% - other goods and services.

**Which of the proposed answers can serve as evidence of the correctness of the conclusions of the authorized bodies that Company C could have carried out illegal activities under the cover of contracts for the supply of fuel with a government organization in the reporting period?**

(A) Gross income changed due to the main type of activity - the sale of fuel, which does not indicate the fact of money laundering.
(B) Gross revenue from other activities increased by 10 times, which indicates that these illegal activities generated large amounts of criminal proceeds that were laundered through legitimate companies involved in fuel transportation.
(C) Gross revenue from other activities increased by 5 times, which indicates that these illegal activities generated large amounts of criminal proceeds that were laundered through legitimate companies involved in fuel transportation.
(D) The company's total gross revenue remained unchanged, which did not allow for large cash flows to be moved. Thus, there is no evidence of money laundering.

**Question 6.** Based on information received from an informant, the National Police of Country T. carried out an operation which resulted in the seizure of 250 kg of heroin and the arrest of the leader and members of an organized crime group. During the interrogation, some members indicated that the leader of the organized crime group, Mr. A, purchased heroin from Mr. X, who lived in City B. In 2009-2011, this organized crime group carried out three deliveries of large quantities of heroin in vehicles from City B. to City S. and from City S. to Country A. After the heroin was delivered to its final destination, the funds received in the amount of 620 thousand monetary units were sent in cash to exchange office Z in City S., through which the transfer was made to exchange office M. in City B. During the subsequent financial investigation by the FIU of Country T., it was established that approximately 3 million monetary units were delivered to exchange office Z in five portions for subsequent transfer to exchange office C in City B. In addition, the FIU established that the head of the organized crime group, Mr. A, and his family members did not conduct business and were not employed. However, Mr. A's wife "sold" 7 items of real estate property to the mother of the heroin supplier. During the investigation, it was established that the transfer of rights to real estate was carried out without the transfer of funds - for heroin delivery services. Mr. A's relatives owned 8 villas and 15 expensive cars.

**Which of the following statements correctly characterize the indicators of suspicious financial transactions?**

(A) Use of exchange offices to transfer funds.
(B) Multiple transfers from an electronic wallet through a money transfer system to a drug transit country.
(C) Multiple transactions for crediting and withdrawing funds.
(D) Transfer of rights to real estate in the absence of grounds (family ties between the parties to the transaction) and a source of income (for example, business activity).
(E) The amounts of money are equal to the cost of one/two/three doses of heroin.

1) (A), (C) and (D)
2) only (B)
3) only (A)
4) (B) and (C)
5) (C), (D) and (E)

**Question 7.** Match the sources of funding for terrorist recruitment with the text descriptions of the cases:

| | **Situations** | **Sources of Funding for Terrorist Recruitment** |
|---|---|---|
| (A) | Authorities in Country A arrested a group of self-radicalised citizens of Country B, who were working in Country A, for their involvement in a pro-ISIS* group. The leader of the group began to radicalise and recruit other citizens of Country B to support ISIS* earlier in the year. The group grew in number and decided to form a clandestine group called Islamic State in Country B. The group sought to overthrow the government of Country B through an armed struggle and establish an Islamic caliphate in the country with a view to ultimately join up with ISIS*. The | 1) Misuse of donations and crowdfunding<br>2) Funding through robberies and petty crimes<br>3) Funding through legal sources of income |

| | | |
|---|---|---|
| | leader of the group persistently solicited donations from its members during their meetings to raise funds for their campaign. The authorities in Country A arrested members of the group before it could grow. At the time the group was disrupted it had at least eight members and had raised a large sum of money. The funds were contributions made out of the salaries of the members. While this amount is not large, it is significant relative to what their salaries were. There was no indication that they had received financial support from any ISIS*-related organizations or supporters. | 4) Using individuals' personal savings to support recruitment<br>5) Using social media companies and NGOs for recruitment<br>6) Self-funding and donations to create a group<br>7) Financial support from terrorist organizations |
| (B) | In 2016, two individuals were arrested on charges of being the main leaders of a cell operating in the North of Country I. whose aim was to recruit and facilitate the travel of FTFs to Country S. in order to join ISIL*. One of the two individuals was responsible for approaching and indoctrinating potential terrorists that would subsequently fight in Country S. The other was in charge of logistics: he maintained Internet fora, bought phone cards and cell phones, and rendered locations secure to hold meetings or would buy bus tickets and book hotel rooms. One of them was unemployed and the other had a temporary job. While these two individuals had a criminal history of violent crimes and drug trafficking, the investigators found out that they were investing their own savings and the unemployment benefits received by one of them in order to carry out their activities. Not all the money was directly used by them. They would send little amounts of money, varying from 50 to 150 monetary units through Payment Services Companies, to other individuals located across Europe with the aim of supporting recruitment of new followers for their cause in other foreign countries. | |
| (C) | In 2013 a group of terrorists stopped two police buses and killed 24 police officers in Country E. The attackers were members of a small cell (which later broadcasted allegiance to ISIL* in return for receiving funding from them). The authorities of the country arrested the involved terrorists. Afterwards, the investigations revealed that a member of this cell operated a fake charity in a small town to raise funds by misusing the name of a well-known charitable organization that is active across the country. He also financed another terrorist (the recruiter) to prepare an ideological programme to indoctrinate the members of the cell, and to prepare all the relevant publications needed to spread their ideology. | |
| (D) | While living abroad in Country S., Person A, a proponent of terrorist movements, maintained contact with international terrorist and extremist organizations and was included on an international wanted list. He arranged for the large-scale collection of funds via the Internet that were sent to Country S. to finance illegal armed groups. Person A created a group whose members were involved in establishing schemes and channels of transportation of young recruits travelling to Country S. to join illegal armed groups. The group launched a social media campaign and raised funds by creating an NGO with the purported purpose of supporting refugees from Country S., building mosques and other humanitarian tasks. Person A also oversaw the operation of several unregistered religious institutions in the region, where extremist and terrorist ideas were actively promulgated. Person A created a recruitment and facilitation group with a robust organizational structure with distinct division of responsibilities, which included registration of multiple payment instruments (E-wallets, bank cards, mobile phones) and management of the collected funds as well as posting various fundraising announcements for collecting funds for their activities in Country S. | |
| (E) | In April 2016, the court sentenced Person B to 15 years' imprisonment. Person B was considered to be the leader of a vast Country B.-based recruitment network. This investigation and trial highlight Person B's role as both a recruiter and facilitator (including the importance of his logistical network with regard to the departure of aspiring terrorists to conflict zones). This network assisted in sending almost 60 people to the country with high terrorist activity between 2012 and 2014. Among the people his network recruited were the organisers of attacks in a number of capitals. Person B was implicated in several major contemporary terrorist investigations, notably relied on young recruits he instructed to commit robberies and petty crimes, arguing that the Koran permitted stealing from infidels. Proceeds of crimes were then used to "motivate" potential FTF candidates and cover the travel expenses of those departing for the countries with high terrorist activity, as well as to support fighters while in combat zones. | |

***** the organization banned in the territory of the Russian Federation.

**Question 8.** Over a long period of time, a group of individuals with family and other ties made cash deposits in various currencies and denominations in their own accounts or the accounts of other individuals they are related with, opened with several banks of European Country X. The cash funds were introduced into the banking system after having been physically carried across the state border (without declaring). The funds were placed into term deposits, converted into other currencies and transferred to the accounts of third parties. The natural persons in question do not hold a job and do not have any declared earnings. They are suspected of being members of a drug trafficking network. Hence, there is a suspicion that the cash funds deposited into the banking system of the Country X. are the proceeds of the crime of abuse of narcotic drugs.

**Which of the following statements are based on the factual circumstances described above and correctly identify the indicators of suspiciousness of the financial transactions described?**

(A) Transfers of funds to a high-risk jurisdiction.
(B) Multiple and systematic withdrawals of cash from accounts over an extended period of time.
(C) Physical transfer of cash funds across national borders without declaration.
(D) Frequent cash deposits into an account in amounts below the threshold made over a longer period of time.
(E) Carrying out transactions which do not make economic sense.

**Answer options:**

1) (A) and (B)
2) (B) and (C)
3) (B), (C) and (D)
4) (C) and (E)
5) (C) and (D)

**Question 9.** In accordance with the legislation of Country A, legal entities and entrepreneurs must carry out their business activities in a non-cash form through a bank account. There are strict limits for withdrawing income from a bank account. Company E plans to purchase cars in the company's name from citizens F and G. Company E used the services of a commission store P for this trading operation. An analysis into the market prices of the purchased cars conducted by the authorized bodies showed that their average market value was in the range of $X_{min}$~$Y_{max}$ given the condition of the vehicles. It was found that the value of both vehicles purchased by Company E is within the average market price range very close to the maximum price. Further monitoring of the financial transactions of citizens F and G who sold the cars showed that citizen F contacted the bank to withdraw large amounts of cash from a bank card and indicated the purchase of property as the basis for the transaction. A similar situation occurred with citizen G a few days later. When asked by the bank to provide the real estate contract, clients G and F provided identical contracts, in which the buyer's surname matched the surname of the owner of company E. Further investigation revealed that the buyer of the real estate was the son of the owner of company E, and company E itself had actually purchased the cars from the owners of G and F at a price slightly below the minimum market price.

**Which of the following statements relate to the factual circumstances which served as the basis for filing a suspicious transaction report and triggered a further financial investigation by the authorized bodies?**

(A) Transfer of funds in non-cash form to the sellers' bank cards for both cars on the same day.
(B) Payment under the real estate purchase contract can be made in non-cash form, in connection with which the application of citizens G and F for the purpose of withdrawing cash triggered filing an STR.
(C) In order to circumvent the restrictions of the legislation of Country A on cash withdrawals, Company E planned to purchase goods according to a fictitious scheme in order to cash a certain part of the income received in the bank account in non-cash form.
(D) Purchase of cars from two different owners (F and G) through the same commission store by Company E.
(E) Submission of the same contract for the purchase of real estate as a basis for the transaction to the head office and the branch by both clients G and F.

**Answer options:**

1) only (C)
2) (B) and (E)
3) (A) and (D)
4) only (B)
5) (A), (B) and (E)

**Question 10.** Person Y made several hundred VA transactions across several VA exchanges. In some cases, Person Y used fake photographs and fake IDs to bypass the CDD procedures at the VA exchanges. Person Y used both independent and linked accounts and provided VA transfer services to clients, including converting VA into fiat currency for a fee. Person Y also conducted business in Country A but never registered with the Financial Crimes Enforcement Network (FinCEN). Person Y ultimately transferred approximately 35 million currency units to foreign bank accounts and used them to purchase prepaid cards which could be exchanged for VA. This information was discovered by the competent authorities during the financial investigation.

**Which of the following statements are based on the given factual circumstances and may serve as a conclusion by the authorized bodies about the suspicious features of the financial transactions carried out by Person Y?**

(A) Using one or more credit and/or debit cards linked to the VA wallet to withdraw large amounts of fiat currency (crypto-to-plastic).
(B) The Client presented counterfeit documents or counterfeit photographs and/or identification documents during the onboarding process.
(C) The Client operates as an unregistered VASP, therefore there is concern that it processes a large number of VA transfers on behalf of its clients and charged them higher transfer fees than other exchanges.
(D) Receiving funds from or sending funds to VASPs where CDD or know-your-customer (KYC) procedures are clearly insufficient or absent.
(E) Abnormal transaction activity (level and volume) of cashing out VA on exchanges from P2P platform wallets without logical justification from a business point of view.

**Answer options:**

1) (A), (B) and (C)
2) (B) and (D)
3) (C), (D) and (E)
4) (A), (C) and (E)
5) (A), (B) and (E)

**Question 11.** Company A (Country 1) engaged in construction opened accounts in a Bank in Country 2. Funds were transferred via SWIFT from the company's account opened in one of the banks in Country 1 to the bank in Country 2 in two transfers under the reason of transfer of own funds. Then the funds were converted into foreign currency on the same days and after that a part of the funds was withdrawn in cash by check through the company's founder. A couple of days later, additional funds were transferred from Country 1 in a similar manner under the reason of transfer of own funds. The bank in Country 2 requested information about the activities and source of the client's funds. The client provided a Memorandum of Agreement, under which Company A sold a vessel to Company B (Country 1). An Investment Agreement was also provided. It stated that Company A was financing Company B (Country 2) for the exploration and development of a gold deposit. Taking into account the analysis of the nature of the financial transaction, the Bank filed an STR with the authorized bodies.

**Which of the following statements reflect the Bank's findings and the presence of signs of a suspicious financial transaction?**

(A) Import contracts which do not provide for the actual receipt of goods into the country or do not provide for the movement of goods within the country.
(B) Transactions not related to the client's main activity.
(C) Transfer of own funds from one bank to another without apparent reason, including international transfers.
(D) No supporting documents on the source of funds to finance the transaction.
(E) Crediting funds in large amounts, conversion and withdrawal of funds in cash.

**Answer options:**
1) (B) and (C)
2) (A) and (C)
3) (B) and (D)
4) (C), (D) and (E)
5) (B), (C) and (E)

**Question 12.** A lawyer in Country K receives 3 million monetary units from a client who is later found to be involved with an international criminal organization. The client asks the lawyer to transfer the money to other countries to disguise its origin and use it to finance illegal operations.
The lawyer decides to help the client and begins transferring money to Countries T, S, and P, where other lawyers are also involved in money laundering schemes. In Country T, one of the lawyers transfers 2.5 million monetary units to the account of a known drug dealer on the same day he receives funds from the lawyer in Country K.
When checking the transactions, the bank requires the lawyer to report large transactions, but the lawyer provides false information about receiving funds from the sale of real estate. During the investigation, the police discover that the funds were transferred to a drug dealer.
The bank employees try to obtain additional information about the suspicious transactions, but the lawyer refuses to cooperate citing the confidentiality of the relationship with the client. The bank notifies the lawyer that it will terminate its service and transfers information about the suspicious transactions to law enforcement agencies.
The investigation continues and the police establish a link between the lawyer from Country K and other participants in the criminal scheme. As a result of the investigation, the lawyer and other participants in the criminal group are charged with money laundering and participation in an international criminal organization.
**Which of the following statements correctly describes the signs of suspicion of a lawyer's clients related to the nature of financial transactions?**
(A) Clients who carry out financial transactions which are unusual for their activities may arouse suspicion in the bank. They include unusual activities such as transactions with currencies and securities, purchases for subsequent resale, issuance of cash to the bearer and other non-standard actions.
(B) Opaque or undocumented accounting may indicate suspicion but is not always a sign of illegal activity.
(C) Payments for which there is no justified economic expediency may arouse suspicion but are not always related to tax evasion or money laundering.
(D) Adjusting requirements during the execution of a contract may be associated with possible risks but does not always indicate illegal activity.
(E) Clients who make many suspicious transactions may arouse suspicion in the bank. They include transactions that are not typical for the previous activity of the organization or individual entrepreneur, providing an interest-free cash loan, placing gold items and scrap precious metals in a pawnshop, as well as other actions which raise doubts about their legality.

**Answer options:**
1) (C) and (D)
2) (A) and (E)
3) only (C)
4) only (E)
5) (A), (D) and (E)

**Question 13.** City N located in Country R experienced a sharp increase in debit and credit transactions of approximately 6,000 monetary units or more over a six-month period following the opening of individual accounts between July 2021 and February 2022. Individual savings accounts were opened en masse in 10% of branches in City N.
The accounts were opened at the branch level through the F system, as the account numbers were serial and sequential. The branches were informed that these accounts were opened for visa purposes by students wishing to pursue their studies abroad. All the accounts had common characteristics: newly opened savings bank accounts for individuals aged between 18 and 35. The profile of the suspected accounts included students, housewives, service workers, the self-employed, and professionals. Several mobile numbers were found associated with approximately 1,200 such accounts. These accounts were subject to deposit and transfer transactions over a period of time. Balance sheets were issued for some of the accounts.
Financial transactions were subsequently terminated for most of the accounts. The Financial Intelligence Unit (FIU) concluded that the accounts were used to launder proceeds of crime.
**Which of the following hypothetically true facts and statements support and justify the FIU's findings?**
(A) The information that the company used nominees to hold shares is false, since all shareholders were real and well-known individuals.
(B) The analysis of IP addresses showed that investments were managed from a single centre, which indicates a possible connection between the companies and their founders.
(C) The statement that the company used offshore companies to hide real owners is not true, since all assets and income were transparently reflected in the financial statements.
(D) The information from public Prosecutor's Offices in other countries and international organizations about suspicious activity and sources of funds also confirms the FIU's findings.
(E) The investigation results showed that a significant amount of funds were invested in government bonds and enterprises of Country R, which may indicate money laundering and illicit financing.

**Answer options:**
1) (A) and (D)
2) only (C)
3) only (D)
4) (B), (D) and (E)
5) (A) and (D)

**Question 14.** An employee of a small law firm in Country A receives an email from a client requesting a deposit of 260,000 currency units to purchase machine tools in City L. The client provides the firm's bank account details and the names of two clients of a bank in City L, confirming that the money will be deducted from the deposited funds.
The employee passes the information on to the client, and the money is successfully transferred to the firm's account. However, after the transfer, the client requests an urgent transfer of the funds to an account in City L, providing the account details. The employee complies with the client's request, but notices that the money deposited into the firm's account is funds withdrawn from a third party's account without its permission. He begins an investigation and discovers that the client has been using the firm to launder money and illegally finance his activities. The employee decides to contact law enforcement and reports his suspicions. The investigation reveals that the client and his accomplices have been using the firm to conduct illegal operations and launder money. The firm and its employees become witnesses in the case and have to cooperate with law enforcement agencies to collect evidence and identify all participants in the criminal scheme. Ultimately, the case goes to court, and the client and his accomplices are punished for their crimes.
**Which of the following statements correctly reflects the erroneous actions committed by the law firm as Designated Non-Financial Businesses and Professions (DNFBP)?**
(A) The law firm used outdated working methods, which led to the loss of clients and decreased reputation.
(B) Incorrect application of legislation: incorrect interpretation of laws and regulations, which reduced the effectiveness of protecting the client's interests in court and the chances of success.
(C) The firm did not follow ethical standards and violated the rights of its clients, which caused litigation and financial losses.
(D) The firm provided poor-quality legal services, which caused dissatisfaction with clients and a decrease in their trust.
(E) The firm did not ensure proper protection of the intellectual property of its clients, which led to information leaks and losses.

**Answer options:**
1) (A) and (B)
2) (D) and (E)
3) only (B)
4) only (A)
5) (A), (C) and (D)

**Question 15.** (1) In 2017, the Public Prosecutor's Office sent a request to the FIU of Country B. to analyse the financial activities of members of a family who were being investigated for suspected arms trafficking. (2) In the same year, six reporting entities sent seven STRs to the FIU of Country B. concerning spouses X and Y and their family members, mainly their eldest son A. (3) The investigation into cross-border arms smuggling revealed large sums of money, as well as a large number of assets used to commit this crime (e.g. weapons depots).
(4) Several companies were created; their main activities were found to be the transportation of weapons or their sale at weapons depots owned by the same family. (5) All of these activities were used to launder illicit funds; such ML methods were described in detail in the typologies and suspicious activity indicators developed by the FATF. (6) The financial analysis began with an analysis of the activities of Company C, which was acquired by spouses X and Y in December 2007. (7) The main activity of this company was domestic and international cargo transportation. (8) Before this company was acquired by X and Y, its activities had generated an annual income of approximately 4,500 monetary units over the previous four years. (9) After its acquisition, it began to generate a profit of approximately 33,300 monetary units.
(10) Once possessed by this family, Company C increased both its assets and its profits in a short time. (11) The members of this family carried out their activities under the cover of Company C and other fictitious companies created for this purpose, which made it possible to move large amounts of money.
(12) X and Y used Company C to freely transport weapons subject to mandatory certification on the basis of weapons transportation contracts concluded with state-owned companies.
(13) The arms shipments were carried out as a cover for illegal activities.
(14) The success of this method prompted the family to create several other companies which carried out the same type of activity and to involve other family members in the necessary transportation.
(15) The analysis confirmed that Company C was owned by X and Y and that they opened and managed bank accounts which held local and foreign currencies in various financial institutions. (16) According to financial intelligence, the family's company managed the funds in the X and Y accounts, which amounted to more than 120 million monetary units.
(17) Approximately 45% of the total amount of funds managed was received from government contracts for the transportation of weapons and products obtained from them; another 10% was obtained from transactions with companies which needed their services and were legitimate. (18) The remaining 45% of the funds are of unclear origin and purpose.
(19) The analysis revealed that the children of X and Y — A, B, C and D, as well as companies C1, C2, C3, C4 and C5, which were jointly created by X and Y and their children, carried out transactions with Company C and with each other. (20) The analysis carried out by the FIU of country B in close cooperation with the Prosecutor's Office revealed the illegal trade in weapons subject to mandatory certification as a crime committed earlier and established that the main crime was the legalization of illegal proceeds.
**Analyze sentences 10-19 and choose all the sentences which correctly define the type of information received by the FIU of Country B, which was mentioned in the passage. Write your answer as a sequence of letters**.

(A) Thanks to the cooperation of the FIU of Country B with the Prosecutor's Office, sufficient evidence was collected to initiate a criminal case on the fact of illegal arms trade and money laundering.
(B) The children of X and Y, as well as companies C1, C2, C3, C4 and C5 created by them and their children, participated in transactions with company C and among themselves.
(C) The financial analysis of the activities of spouses X and Y and their family did not reveal large sums of money and a large number of assets used to commit a crime.
(D) The FIU of Country B and the Prosecutor's Office did not reveal any cases of money laundering through government contracts for the transportation of weapons and products made from them.
(E) The analysis conducted by the FIU of Country B revealed illegal trade in weapons subject to mandatory certification.

# Answer form (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ANSWER** | | | | | | | | | | | | | | | |
| **CORRECTION** | | | | | | | | | | | | | | | |

# PROTOCOL OF ASSESSMENT OF WRITTEN WORK " Economics" (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum point | 2 | 4 | 4 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 |
| Correct answer | 243156 | 235461 | 3 | C | B | 1 | 64152 | 5 | 3 | 4 | 5 | 2 | 4 | 3 | ABE |
| Participant response | | | | | | | | | | | | | | | |
| Actual point | | | | | | | | | | | | | | | |
| Increase or decrease point based on the results of the appeal | | | | | | | | | | | | | | | |
| Final point including appeal | | | | | | | | | | | | | | | |

**SUM OF POINTS**

**RESULT OF THE APPEALS**

**FINAL GRADE**

**SIGNATURES OF JURY MEMBERS**

**SIGNATURE OF THE MEMBERS OF THE APPEALS COMMISSION**

**THE DATE**

**THE DATE**

**PARTICIPANT'S SIGNATURE**
*(ATTENTION! DO NOT indicate your full name or identify yourself in any other way! Otherwise – you will be disqualified!)*

# OLYMPIAD TASKS
## in Law (students)

**Question 1**. The staff of the State AML/CFT authorized body have been asked to target certain types of real estate activities most exposed to ML/FT risk based on their location and the clientele they deal with. For that purpose, the staff have to send a preliminary questionnaire to a certain amount of estate property agencies, which have to fill it in with information on their activities (including turnover, average number of transactions and types of clientele) and their awareness of AML/CFT obligations, such as transmission of suspicious transaction reports (STRs) to the AML/CFT authorized body.
This information combined with the knowledge of past records on obliged entities (e.g. information on penalties imposed on them or information taken from other investigations in consumer protection field) will help the AML/CFT authorized body to assess the risk of real estate agents' exposure to ML/FT. The implementation of this technique allowed the AML/CFT authorized body to detect a significant number of non-compliant entities.
The AML/CFT authorized body of State B. has also participated in more awareness events to mobilize professional organizations and obliged entities in AML/CFT. Following these activities, specialists filed more STRs in 2023 and 2024, even though the number of STRs remains small compared to the number of transactions completed by real estate agents.

**Which of the following statements can be considered as the conclusion(s) to the above passage?**

1. Communication and cooperation are essential for the effective application of a risk-based approach (RBA).
2. AML/CFT authorized bodies should ensure that real estate professionals properly assess ML/TF risks.
3. AML/CFT authorized bodies provide the information basis for AML/CFT activities.
4. Information obtained through cooperation with the real estate sector helps understand the ML/TF risks of persons and entities involved in the real estate sector.
5. AML/CFT authorized bodies should use a variety of information sources, where appropriate, to identify and assess ML/TF risks.

**Question 2.** According to the FATF position, a trust may include various parties (settlors, trustees, beneficiaries, etc.) who have a number of rights and obligations within the framework of trust management.
Match each of the following powers of a party to a trust with the types of such parties.
**Write your answer as a sequence of numbers.**

| POWERS | PARTY |
|---|---|
| A. Powers over the trust assets subject to certain obligations. | 1) Settlors |
| B. Right to transfer ownership of their assets by means of a trust deed or similar arrangement. | 2) Trustees |
| C. Obligation to perform management, administration, and investment functions personally and not to delegate those functions, except as provided for by the trust instrument. | 3) Beneficiaries |
| D. Right to the benefit, directly or indirectly, of any trust arrangement. | |
| E. Right to delegation of powers by appointment of agent or service providers to the trust to access additional expertise, e.g., investment advisors or managers, accountants, and tax advisors. | |

**Question 3.** The FATF/INTERPOL/Egmont Group Report on Illicit Financial Flows from Cyber-Enabled Fraud focuses on illicit financial flows arising from fraud committed in or through the cyber environment. This type of crime is becoming increasingly common in the modern world.
Choose all the correct statements which correspond to the content of the Report.
**Write your answer as a sequence of numbers in ascending order.**

1. According to 2022 INTERPOL Global Crime Trend Report, online scams are one of the cybercrime trends.
2. The report also includes information on illicit financial flows related to ransomware and other malware-enabled crimes.
3. Digitalization and the development of new technologies are key drivers underpinning the growth of cyber-enabled fraud.
4. Cyber-enabled fraud and related money laundering are not executed by transnational organized criminal groups or syndicates.
5. The COVID-19 pandemic accelerated the transition from in-person financial activities to online account opening, payments and lending.

**Question 4.** The FATF Guidance for a Risk-Based Approach on Beneficial Ownership and Transparency of Legal Arrangements addresses the specifics of trusts and the associated AML/CFT transparency obligations.
Choose all the correct statements which correspond to the content of the above-mentioned Guidance.
**Write your answer as a sequence of numbers in ascending order.**

1. Trusts are an arrangement governing the relationship between the parties and the assets, and therefore they have their own legal personality.
2. There are also trusts which come into being through the operation of the law and do not result from the settlor's clear intent or decision to create a trust or similar legal arrangement.
3. The settlor is always named in the trust instrument (deed).
4. Trusts include only settlors, trustees and beneficiaries.
5. Charitable trusts can be set up for an interest to be directed at a particular charitable purpose, rather than a group of people. As such, there are no identifiable beneficiaries. The reasons for the establishment or use of trusts include overcoming legal obstacles (such as requirements for residency).

**Question 5.** According to the FATF Report on Crowdfunding for Terrorist Financing, the main actors in crowdfunding campaigns are usually the project promoter, investor, donor, backer, intermediary organization. Each of them has its own role in crowdfunding.
Match each of the roles of actors in crowdfunding campaigns with the types of such actors.
**Write the answer as a sequence of numbers.**

| ROLE | ACTOR |
|---|---|
| A. Any natural or legal person who grants loans or acquires negotiable securities or instruments eligible for crowdfunding. | 1) Project promoter |
| B. Any natural or legal person that pledges to pay a sum of money in support of a project, with the expectation of receiving a reward if the campaign is successful. | 2) Investor |
| C. Any natural or legal person seeking funding through a crowdfunding campaign. | 3) Donor |
| | 4) Backer |
| | 5) Intermediary organization |

| | |
|---|---|
| D. Any natural or legal person that brings together other actors through an online platform or other means.<br>E. Any natural or legal person who grants a donation to the crowdfunding campaign. | |

**Question 6.** In accordance with the FATF Guidance for a Risk-Based Approach for Money and Value Transfer Services, the extent of customer due diligence (CDD) measures may be adjusted to the extent permitted or required by regulatory requirements, in line with the ML/TF risk, if any, associated with the individual business relationship. This means that the amount or type of information obtained, or the extent to which this information is verified, must be increased where the risk associated with the business relationship is higher. It may also be simplified where the risk associated with the business relationship is lower.

Match each of the following examples of due diligence measures to the types of measures.

**Write your answer as a sequence of numbers.**

| EXAMPLES | DUE DILIGENCE MEASURES |
|---|---|
| A. Evaluating the information provided with regard to the destination of funds and the reasons for transaction.<br>B. Carrying out additional searches (e.g. verifiable adverse internet searches) to better inform the individual customer risk profiling.<br>C. Verifying the identity of the customer and the beneficial owner after the establishment of the business relationship (e.g. if transaction values rise above a defined monetary threshold).<br>D. Verifying the source of funds or wealth involved in the transaction or business relationship to be satisfied that they do not constitute the proceeds from crime.<br>E. Collecting specific information or carrying out specific measures to understand the purpose and intended nature of the business relationship, but inferring the purpose and nature from the type of transactions or business relationship established.<br>F. Obtaining fewer elements of customer identification data, seeking less robust verification of the customer's identity. | 1) Enhanced Due Diligence<br>2) Simplified Due Diligence |

**Question 7.** To further evade detection and remain anonymous, _____ employ various techniques and mechanisms: e.g., _____(structuring or breaking up a large financial transaction); hopping through accounts across different financial, remittance or payment service _____; and conversion to other types of _____ (e.g., electronic money (e-money), pre-paid cards, _____ ).This may increase the time necessary for _____ to access the requisite financial data across borders, sectors, and institutions in order to trace, secure and finally recover _____. Some _____ might also only allow their accounts to be used for a specific and limited period of time. The limited time period, together with legitimate onboarding procedures, make it difficult to detect _____.

**Fill in the gaps in the text using the terms below. Write your answer as a sequence of numbers.**

1. Financial intelligence units (FIUs)
2. Smurfing
3. Providers
4. Cyber-enabled fraud (CEF) syndicates
5. Abnormal activities
6. Virtual assets
7. Money mules
8. Illicit proceeds
9. Financial assets

**Question 8.** Under an effective risk-based supervisory framework, the supervisor identifies, assesses and understands ML/TF risks within the sector(s) and entities under its purview and mitigates them effectively on an ongoing basis. In accordance with the FATF Guidance on Risk-Based Supervision, the risk-based supervision process consists of two main components: 1) identifying and understanding risks, and 2) mitigating risks.

Match the following examples of the types of activities of the supervisor used in the National Risk Assessment with the above stages.

**Write your answer as a sequence of numbers.**

| ACTIVITIES | STAGES |
|---|---|
| A. Assessing risk mitigation measures<br>B. Selecting an appropriate mix of supervisory tools<br>C. Adjusting and refining the nature, frequency, depth and focus of supervision<br>D. Reviewing the assessment methodology and underlying information<br>E. Applying sanctions, including administrative and monetary fines<br>F. Assessing residual risks<br>G. Implementing the supervisory strategy/plan | 1. Identifying and understanding risks<br>2. Mitigating risks |

**Question 9.** A financially excluded individual applies for a basic bank account, using a digital ID obtained without presenting identity evidence. The digital ID has a lower assurance level for identity proofing but an authentication assurance level that provides confidence that the claimant controls authenticator(s) bound to the identified individual.

The regulated entity onboards the customer and provides a low-risk bank account, with a very low threshold for value, transaction volume, and velocity and no cross-border transactions (these risk mitigation measures are based on risk analysis). The customer uses this account to obtain a mobile phone under a contract and receives digital wage payments directly into the bank account among other activities.

The regulated entity uses data associated with the direct deposit of wages, social transfers or benefits, to verify employment, occupation, and source of funds, and regular payments from the account for mobile phone and utility services to establish a pattern of responsible financial behaviour. The regulated entity also collects other transaction and associated authentication information to verify the customer's address. Over time, the regulated entity uses the customer's consistent financial activities and behavioural patterns (e.g., transaction times, typical amounts, purposes/counterparties and geolocation) to strengthen authentication for account access and anti-fraud measures.

The jurisdiction's AML/CFT legal framework is principles-, performance-, and outcomes-based. Its customer identification/verification regulations require regulated entities to have a reasonable basis to believe they know who their customers are, but do not rigidly prescribe how they are to achieve this objective.

The regulated entity treats the data generated by the customer's activities over time as identity evidence and uses it to build confidence that it knows who its customer is and the customer's risk profile. When that confidence satisfies the regulated entity that it has complied with its customer identification/verification obligations and satisfied its own risk appetite and risk management practices and procedures for other financial services, the regulated entity offers a standard bank account with higher thresholds and greater functionality and later, provides a small loan, which the customer uses to start a business.

**Which of the following statement(s) explain(s) the approach to digital identification taken by the regulated entity in the cited extract from the FATF Guidance?**

1. Applying flexible approach to the use of digital identification systems within the FATF Standards ensures that the individual's needs be met.
2. Using digital identification data allows people who previously had no or limited access to financial services to open an account without restrictions on the amount and number of transactions.
3. Using digital identification data as part of tiered and progressive customer due diligence (CDD) can contribute to financial inclusion.
4. Under the described approach, individuals who previously had no or limited access to financial services cannot be registered in the digital identification system.
5. Under the described approach, individuals who do not have identity documents can undergo tiered and progressive due diligence and gradually expand and improve their level of access to financial services starting with the opening of a limited account**.**

**Question 10.**

Based on the _____ mainly sent by money or value transfer service (MVTS) operators and electronic money _____ (prepaid cards), and combined with the investigations' findings, the _____ of State A., using pattern recognition techniques, compiled the _____ associated with the different _____ roles (migrant smugglers, _____, migrants' relatives, etc.), consequently, since then, all entities fitting the aforementioned patterns of financial behavior have been marked accordingly by the FIU financial analysts in order to provide hints to the subsequent investigative analysis carried out by _____, with a focus on a specific _____.

**Fill in the gaps in the text using the terms below. Write your answer as a sequence of numbers.**

1. Suspicious Transaction Report (STR)
2. Financial behaviour
3. Issuers
4. Migrants
5. Migrant smuggling
6. Law enforcement bodies
7. Predicate offence
8. Financial Intelligence unit (FIU)

**Question 11.** Traditionally, in the context of the FATF, money laundering is described using a three-phase model, which provides for the following stages in a single process of money laundering: (1) placement, (2) layering / transformation / obfuscation, and (3) integration. Each stage corresponds to the methods by which they are implemented.

Match each of the following methods for implementing the three-phase money laundering model with its stages within which these methods are applied.

**Write your answer as a sequence of numbers.**

| METHODS | STAGES |
|---|---|
| A. Merging legal and illegal assets. | 1) Placement |
| B. Investing in real estate, official businesses, and shell companies. | 2) Layering / transformation / obfuscation |
| C. Structuring cash transactions (exchange transactions). | 3) Integration |
| D. Converting cash deposited in credit institutions into financial instruments. | |
| E. Lending against property of criminal origin and repaying the loan by selling the collateral. | |
| F. Establishing control by a criminal group over financial institutions or other objects of economic activity. | |
| G. Selling real estate acquired with proceeds from crime. | |

**Questions 12-13.** Identity Assurance Level (IAL) refers to the reliability of the identity verification and confirmation process as defined by the digital identity specification. The identity assurance levels are defined in order of increasing reliability:

- IAL1: No requirement to link the applicant to a specific real-life identity, i.e. there is no reliability that the applicant is the one who they claim to be because no verification is required.
- IAL2: High confidence that the identity evidence is genuine, the attribute information it contains is accurate, and relates to the applicant.
- IAL3: Very high confidence that the identity evidence is genuine and accurate, the identity attributes relate to a real person, and the applicant is a natural person appropriately linked to the identity of that real person.

The requirements for identity proofing need to be developed for each of the three levels. The requirements must address the following seven issues at each level: 1) presence and verification, 2) evidence, 3) validation, 4) verification, 5) address verification, 6) biometric data collection, 7) security controls.

These issues for each level of identity verification security will be addressed by three expert groups: Group A, Group B, and Group C. Each of the seven issues will be addressed by only one expert group, according to the following conditions:

1. Either validation or biometric data collection (but not both) is addressed by Group A.
2. Validation and verification are addressed by the same expert group.
3. Either biometric data collection or security controls (but not both) are addressed by Group B.
4. Group C addresses more issues than Group B.
5. Address verification and security controls are dealt with by the same expert group.

**12. Which of the following statements cannot be true?**

A. Proof and verification of address are dealt with in Group C.
B. Presence and verification and verification of address are dealt with in Group C.
C. Validation and verification of address are dealt with in Group A.
D. Evidence and security controls are addressed in Group C.
E. Presence and verification and verification of address are dealt with in Group A.

**13. The issue of verification cannot be reviewed by the same panel of experts that is reviewing one of the following issues:**

A. Presence and Verification.
B. Evidence.
C. Biometric Data Collection.
D. Address Verification.
E. Security Controls.

**Questions 14-15.** In 2023–2024, five AML/CFT experts were tasked with preparing a report which will focus on illicit financing arising from fraud committed in or through the cyber environment. Recognizing that there are many different types of such fraud, it has been decided to focus on five types of criminal activity: (1) business email compromise, (2) phishing, (3) social media and telecommunications scams, (4) online trading/trading platform scams, and (5) romantic scams. Each of the five experts: Z, G, L, I, and J are to prepare only a portion of the report, analyzing one of the five types of criminal activity. Then

their portions of the reports will be discussed at a working group meeting, which will run from Monday to Wednesday. Two reports are to be presented on Monday, one on Tuesday, and two on Wednesday. The scheduling of expert testimony must meet the following conditions:

1. Expert Z cannot present their report on the same day as L.
2. Either I or J will present their report on social media and telecommunications scams on Tuesday.
3. G will present his report on the same day that the report on online trading/trading platform scams is presented, regardless of whether G is the same expert presenting the report.

**14. Which of the following statements must be true?**

A. If Z speaks on Monday, G will present his report on online trading/trading platform scams also on Monday.
B. If I speaks on Tuesday, J will speak on Monday.
C. If J speaks on Tuesday, G will speak on Monday.
D. If L and I both speak on Wednesday, the report on online trading/trading platform scams will be presented on Monday.
E. If both Z and J speak on Monday, L will present a report on online trading/trading platform scams.

**15. If L and I are presenting their reports on Monday, which of the following must be true?**

A. Expert Z will present a report on phishing.
B. The report on online trading/trading platform scams will be discussed on Wednesday.
C. Expert I will present a report on social media and telecommunications scams.
D. Expert G will present a report on business email compromise.
E. The report on romantic scams will be discussed on Wednesday.

# Answer form (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ANSWER** | | | | | | | | | | | | | | | |
| **CORRECTION** | | | | | | | | | | | | | | | |

# PROTOCOL OF ASSESSMENT OF WRITTEN WORK "Law" (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum point | 5 | 3 | 4 | 4 | 3 | 3 | 2 | 3 | 5 | 2 | 4 | 3 | 3 | 3 | 3 |
| Correct answer | 134 | 21232 | 135 | 256 | 24153 | 112122 | 423961875 | 1221212 | 35 | 13825467 | 1212313 | E | C | D | B |
| Participant response | | | | | | | | | | | | | | | |
| Actual point | | | | | | | | | | | | | | | |
| Increase or decrease point based on the results of the appeal | | | | | | | | | | | | | | | |
| Final point including appeal | | | | | | | | | | | | | | | |

**SUM OF POINTS**

**RESULT OF THE APPEALS**

**FINAL GRADE**

**SIGNATURES OF JURY MEMBERS**

**SIGNATURE OF THE MEMBERS OF THE APPEALS COMMISSION**

**THE DATE**

**THE DATE**

**PARTICIPANT'S SIGNATURE**

*(ATTENTION! DO NOT indicate your full name or identify yourself in any other way! Otherwise – you will be disqualified!)*

# OLYMPIAD TASKS
## in International Relations (students)

**Questions 1–2.** To strengthen the global response to ransomware attacks and related money laundering, the FATF suggests that jurisdictions implement the following measures: 1) implement the relevant FATF Standards, including those relating to virtual asset service providers (VASPs), enhance detection of ransomware attacks, 2) promote financial investigations and asset recovery efforts, 3) adopt a multidisciplinary approach to combat ransomware attacks, 4) support partnerships with the private sector, and 5) develop and improve international cooperation.

Accordingly, States A, M, N, V, Z, S and T, which have seen a significant increase in ransomware-related financial flows in recent years, implemented these measures in 2023. In particular, the states implemented these measures at different times, which corresponded to the following conditions:

1. State Z implemented the measures the first or seventh.
2. State N implemented the measures some time after state A implemented the measures.
3. State T implemented the measures some time after state M implemented the measures.
4. Only one state implemented the measures between states A and V, regardless of where the measures were implemented first: first in A and then in V, or vice versa.
5. Only one state implemented the measures between states M and Z, regardless of where the measures were implemented first: first in M and then in Z, or vice versa.

**1. If state N was the fourth to implement the measures, which of the following could be true?**

A. State A was the second to implement the measures.
B. State A was the first to implement the measures.
C. State M was the third to implement the measures.
D. State V was the fifth to implement the measures.
E. State S was the first to implement the measures.

**2. Which of the following orders of implementation of the measures by states is correct?**

A. A, N, S, V, M, T, Z.
B. M, T, Z, S, A, N, V.
C. Z, M, S, N, V, T, A.
D. V, S, A, N, M, T, Z.
E. Z, T, M, S, A, N, V.

**Question 3.** Anti-money laundering, combating financing terrorism and financing proliferation of weapons of mass destruction (AML/CFT/CPF) is becoming increasingly widespread and is of paramount importance in the fight against crime in the modern world. In this regard, states create their national AML/CFT/CPF systems. These systems are being formed and developed under the influence of international requirements and standards taking into account the national characteristics of states, as well as the activities of international and regional organizations dealing with AML/CFT/CPF issues, such as: 1) Financial Action Task Force on Money Laundering (FATF), 2) International Monetary Fund (IMF), 3) Interpol, 4) Egmont Group, 5) Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG), 6) Asia/Pacific Group on Money Laundering (APG), etc. In order to create and develop their own effective national AML/CFT/CPF systems, three states: F, G and L have been considering joining these organizations for the past few years. As a result, each of the three states joined only two of the six organizations. The accession did not take place simultaneously in accordance with the following conditions:

1. State F joined one of the two organizations before State G joined any of its organizations.
2. State F joined neither the first nor the sixth organizations.
3. State G joined neither the FATF nor the IMF.
4. State L joined neither the FATF nor the EAG.
5. Joining the IMF was immediately after joining the EAG.

**Which of the following sequences may reflect the correct order of accession of states to the relevant organizations?**

A. *F:* Asia/Pacific Group on Money Laundering (APG)
*G:* Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG)
*L:* International Monetary Fund (IMF)
*L:* Egmont Group
*F:* Financial Action Task Force on Money Laundering (FATF)
*G:* Interpol

B. *L:* Interpol
*F:* Egmont Group
*G:* Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG)
*L:* International Monetary Fund (IMF)
*F:* Financial Action Task Force on Money Laundering (FATF)
*G:* Asia/Pacific Group on Money Laundering (APG)

C. *L:* Interpol
*F:* Financial Action Task Force on Money Laundering (FATF)
*F:* Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG)
*L:* International Monetary Fund (IMF)
*G:* Egmont Group
*G:* Asia/Pacific Group on Money Laundering (APG)

D. *L:* Egmont Group
*L:* Asia/Pacific Group on Money Laundering (APG)
*F:* Interpol
*G:* Financial Action Task Force on Money Laundering (FATF)
*F:* Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG)
*G:* International Monetary Fund (IMF)

E. *L:* Asia/Pacific Group on Money Laundering (APG)
*F:* Eurasian Group on Combating Money Laundering and Financing of Terrorism (EAG)
*G:* Egmont Group
*L:* International Monetary Fund (IMF)
*F:* Financial Action Task Force on Money Laundering (FATF)

*G:* Interpol

**Question 4**. According to the FATF Guidance on Beneficial Ownership and Transparency of Legal Arrangements, the purposes for establishing or using a trust include, inter alia, asset protection and management.
Match each of the reasons which led to the need to establish a trust with these purposes of establishing a trust in accordance with the FATF Guidance.
**Write your answer as a sequence of numbers.**

| REASONS | PURPOSES |
|---|---|
| A. Divorce claims | 1) Asset protection |
| B. Residency requirements which prevent ownership of an asset | 2) Asset management |
| C. Claims by creditors or risk of bankruptcy. | |
| D. Mental incapacity or severe disability of a beneficiary which prevents them from managing the affairs. | |
| E. Forced heirship provisions. | |

**Question 5.** The FATF Report on Crowdfunding for Terrorism Financing is the first comprehensive international study of crowdfunding for terrorism financing. Crowdfunding is an innovative way for people from all over the world to raise money to finance ideas, projects or business ventures.
Choose all the correct types of crowdfunding reflected in the Report**.**
**Write your answer as a sequence of numbers in ascending order.**

1. Crowdfunding through an online platform, i.e. the Internet, social networks and other means of communication used to connect people.
2. Crowdfunding based on a public offer.
3. Offset-based crowdfunding.
4. Donation-based crowdfunding.
5. Option-based crowdfunding.

**Question 6.** Various methods of committing crimes related to the legalization of criminal proceeds are characterized by a stable repetition objectively determined by the system of functioning of the financial mechanism of economic entities of each individual state, which creates the prerequisites for using a typological approach in identifying, preventing and solving crimes of this category. The typology is based on identifying the similarities and differences of the objects under study, finding reliable ways to identify them. When describing the typology in FATF reports, several elements are used: tools, mechanisms, methods and schemes.
Match each of the above elements with its description.
**Write your answer as a sequence of numbers.**

| DESCRIPTION | ELEMENT |
|---|---|
| A. Cash or non-cash funds or other property used in operations to launder criminal proceeds. | 1) Methods |
| B. Specific procedure for carrying out specific operations to launder criminal proceeds. | 2) Schemes |
| C. Process of laundering criminal proceeds. | 3) Mechanisms |
| D. Financial institutions and other organizations which carry out operations with cash or other property to launder criminal proceeds. | 4) Tools |

**Question 7.** The FATF Report on Asset Recovery Networks (ARNs) is designed specifically for legislators and law enforcement agencies worldwide. ARNs help law enforcement agencies in different countries work together to track money laundering and other related crimes.
Choose all the correct statements which match the content of the Report.
**Write your answer as a sequence of numbers in ascending order.**

1. ARNs are a direct alternative to mutual legal assistance (MLA).
2. ARNs' guidelines are the key documents on the intentions and structure of asset recovery networks.
3. One of the criteria for ARN membership is to provide an overview of legislation, as well as practical and procedural guidance on civil and criminal asset forfeiture.
4. The most relevant and necessary national points of contact for mutual legal assistance are usually: law enforcement agencies, financial institutions and financial intelligence units (FIUs).
5. ARNs facilitate informal assistance in the asset recovery process, including identification, tracing, seizure, freezing, confiscation and repatriation of assets.
6. ARNs act as facilitators in organizing contacts with law enforcement agencies.

**Question 8.** The FATF/OECD Report on the Misuse of Citizenship and Residence by Investment Programmes comprehensively addresses money laundering and financial crime risks associated with investment migration programmes, including risks related to bribery to foreign officials, fraud and corruption, along with other government policies and programmes related to public integrity, state integrity, taxes and migration.
Choose all the correct statements consistent with the content of the Report.
**Write your answer as a sequence of numbers in ascending order.**

1. Citizenship and residence by investment (CBI/RBI) are government-administered programmes which can benefit both host countries and poor people.
2. CBI and RBI programmes are designed and implemented using a three-stage process: 1) pre-application procedures, 2) application processing and 3) post-decision guarantees.
3. The fundamental difference between citizenship and residence by investment programmes is that the citizenship by investment programmes provide immediate citizenship rights and access to a passport.
4. CBI programmes are a process by which applicants obtain a visa or residence permit allowing them to reside in the issuing jurisdiction in exchange for some type of financial investment.
5. Investment migration allows foreign nationals to qualify for a visa, residence permit, or passport based on their connection to a jurisdiction and qualifications.

**Question 9.** The FATF/INTERPOL/Egmont Group Illicit Financial Flows from Cyber-Enabled Fraud report focuses on illicit financing arising from fraud that is enabled through or conducted in the cyber environment and that (1) involves transnational criminality such as transnational actors and funds flows and (2) involves deceptive social engineering techniques (i.e., manipulating victims to obtain access to confidential or personal information). Recognising the many variations of such fraud, this report focuses on the following types of criminal activity (referred to collectively as cyber-enabled fraud (CEF).
**What type(s) of criminal activity is (are) addressed in this report?**

1. Phishing fraud: victims are deceived into revealing sensitive information such as personal data, banking details or account login credentials. The criminal will then use the information to drain the victims' money from their payments accounts, open new payment accounts or make fraudulent transactions.
2. Fraud using ransomware: criminals block access to data, systems or networks using these programs and demand payment from victims to restore access.
3. Online romance fraud: Victims are duped into sending money to criminals after being convinced that they are in a romantic relationship.
4. Employment scams: Fake job offers on social media platforms trick victims to pay scammers upon various excuses including advanced payment for purchasing commodities to boost sales of a trading platform or a guarantee fee to secure employment.
5. Fraud against celebrities or large companies: criminals obtain confidential, valuable information about the mentioned entities and demand payment from the

victims to quickly resume their activities.

**Question 10.** According to the INTERPOL Global Crime Trends Report of recent years, online _____ are one of the _____ trends most frequently perceived as posing a 'high' or 'very high' threats globally. Most jurisdictions that provided information for this project recognise the money laundering risks arising from _____ within their _____. Regions that are highly cashless and _____ (e.g., where the bulk of financial intermediation is done via _____) are expectedly more vulnerable to the _____ associated with this crime, although the _____ means that criminals can easily target victims regardless of _____.

**Fill in the blanks using the extracts from the report below. Write your answer as a sequence of numbers.**

1. Money laundering (ML) risks
2. Cybercrime
3. Scams
4. Transnational nature of cyber-enabled fraud
5. National Risk Assessments
6. Online services
7. International borders
8. Digital-based
9. Cyber-enabled fraud

**Question 11.** The FATF Guidance on Digital Identity lists international organizations which establish technical standards and mechanisms for the reliability of digital identification.

Match each description of the international digital identification organization's activities with the international organizations listed below based on their competence. **Write your answer as a sequence of numbers.**

| ACTIVITY DESCRIPTION | ORGANIZATION |
|---|---|
| A. Independent international organization which develops voluntary, consensus-based, market relevant international standards that provide specifications for products, services and systems to ensure quality, safety and efficiency and support innovation. Some of the relevant standards include identity proofing and enrolment of natural persons (ISO/IEC 29003:2018); entity authentication assurance framework (ISO/IEC 29115:2013 – under revision) and application of Risk Management Guidelines (ISO 31000:2018) to identity-related risks. | 1) International Organization for Standardization (ISO) |
| B. United Nations specialised agency for information and communication technologies (ICTs) founded to facilitate international connectivity in communications networks. It allocates global radio spectrum and satellite orbits and develops technical standards intended to ensure that ICT networks and technologies seamlessly interconnect worldwide. | 2) GSMA |
| C. International organisation which develops and promotes a broad range of voluntary, consensus-based open technical standards and protocols for the Internet to support interoperability, scalability, stability, and resiliency. In the digital ID space, it developed the Web Authentication browser/platform standard for MFA, using biometrics, mobile devices, etc. | 3) Fast Identity Online (FIDO) Alliance |
| D. Industry association which promotes effective, easy-to-use strong authentication solutions by developing technical specifications that define an open, scalable, interoperable set of mechanisms to authenticate users; operating industry certification programs to help ensure successful worldwide adoption of the specifications; and submitting mature technical specification(s) to recognised standards development organisation(s) (e.g., ISO, ITU X.1277 and X.1278) for formal standardisation. | 4) International Telecommunication Union (ITU) |
| E. Technology agnostic, non-profit trade organisation that focuses on promoting the adoption of digital ID services based on open standards. | 5) OpenID Foundation (OIDF) |
| F. Global industry association for mobile communication network operators and it is involved in the development of a variety of technical standards applicable to mobile communications platforms, including standards for user identification and authentication. | 6) World Wide Web Consortium (W3C) |

**Question 12.** According to the FATF Recommendation "Global Standards on Combating Money Laundering and the Financing of Terrorism and Proliferation", the term "terrorist act" includes: (1) an act which constitutes an offence defined in certain agreements; and (2) any other act intended to cause death or serious bodily injury to a civilian or to any other person not taking an active part in the hostilities in a situation of armed conflict, when the purpose of such act by its nature or content is to intimidate a population or to compel a government or an international organisation to do or abstain from doing any act.

**Which document(s) contain(s) a description of the act that constitutes an offence covered by the term "terrorist act" in accordance with this FATF Recommendation?**

1. Convention on Laundering, Search, Seizure and Confiscation of the Proceeds from Crime 198 (2005)
2. Convention against Corruption (2003)
3. Convention for the Suppression of Unlawful Seizure of Aircraft (1970)
4. Convention on the Physical Protection of Nuclear Material (1980)
5. Convention against Transnational Organized Crime (2000)
6. Civil Law Convention on Corruption ETS 174 (1999)
7. Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms Located on the Continental Shelf (2005)
8. International Convention against the Taking of Hostages (1979)

**Question 13**. A company ("Company") is designing a distributed ledger technology-based platform to issue a digital asset that is intended to act as a stablecoin ("Coin"). The Coin will be backed by assets held in accounts at a number of global financial institutions (collectively, the "Reserve Fund"), that is managed by the Company. The Coin's market value will be maintained in line with the value of the assets held in the Reserve Fund through the Authorised Participant mechanism. Only Authorised Participants will be able to purchase or redeem Coins from the Reserve Fund through the Company. Under the Company's proposed ecosystem, the Company and third parties (collectively, the "Validators") will operate a permissioned blockchain network using other third parties' cloud infrastructure. The Company is raising funds for the Coin through an initial coin offering (ICO).

The Company, third parties and individual users will be able to access, use and transact with the Coin. To connect to the network, any third parties, such as trading platforms and custodial wallet providers, will need to obtain approval from the Company. Coin wallets will permit users to send, receive and store the Coin, and any developers/third parties can offer their customized wallets. Coins will be transferred following the rules defined by the Company and assessed by regulators before commencing operation. Merchants will also be able to use the Coin as payment for goods and services).

**If the FATF Standards are applied to this hypothetical stablecoin scenario, which of the following statements is true regarding the activities of entities involved in the operation of stablecoins?**

1. Custodian wallet providers are virtual asset service providers (VASPs) because their activities facilitate the dissemination and trading of virtual assets (VAs).
2. Authorized Participants are virtual asset service providers (VASPs) or financial institutions because their functions include distributing the Coin, exchanging the Coin for fiat currency or other VAs, and transferring the Coin.
3. Trading Platforms are virtual asset service providers (VASPs) because their functions include Coin distribution, transfer, management and

custodianship.

4. The Company is a virtual asset service provider (VASP) or financial institution because its functions include exchanging the Coin with Authorized Participants.
5. Global financial institutions are virtual asset service providers (VASPs) or financial institutions because their activities include managing the Reserve Fund.

**Question 14.** The FATF Guidance on Digital Identity shows how digital identification systems can be used to implement certain elements of customer due diligence (CDD) in line with FATF Recommendation 10. The report also describes the Main participants in a typical digital identification system and their roles.
Match the following roles of the main participants in a typical digital identification system with the types of the participants.
**Write your answer as a sequence of numbers.**

| ROLE | PARTICIPANT |
|---|---|
| A. Person whose identity has been verified and bound to authenticators (credentialed) by a Credential Service Provider (CSP) and who can use the authenticators to prove identity.<br>B. Unique, real-life individual who is identity proofed, enrolled, credentialed, and authenticated by a digital ID system and uses it to prove his/her (legal) identity.<br>C. Entity which registers (enrols) the applicant and the applicant's [credentials and] authenticators after identity proofing.<br>D. Entity that conducts identity proofing (validation of evidence and verification linking validated evidence to the applicant).<br>E. Person undergoing the processes of identity proofing and enrolment/binding (credentialing).<br>F. Entity which verifies the Claimant's identity to a Relying Party (RP) by confirming the claimant's possession and control of one or more authenticators using an authentication protocol. | 1) User<br>2) Identity Verification Service Provider (IVSP)<br>3) Subscriber (a.k.a. Subject)<br>4) Applicant<br>5) Registration Authority (or Identity Manager)<br>6) Verifier |

**Question 15.** The sale of _____, especially those associated with non-fungible tokens (NFTs), has steadily increased over the past few years. NFTs are _____-based tokens that can represent a variety of unique assets, such as digital art, photos, video games, music, 3D models, etc. Transactions involving NFTs occur in both traditional art market institutions, such as _____, and through newer businesses like NFT marketplaces and _____ trading platforms. The extent of illicit financial activities involving NFTs was not quantifiable at the time of this report. Regulation and supervision of _____ is nascent or non-existent in many jurisdictions, certain activities involving NFTs may not be in compliance with applicable laws in other jurisdictions, and it can be difficult to ascertain the extent of illicit financial activities involving NFTs. The _____ has identified _____ of NFTs related to both money laundering and illicit proceeds-generating offences through its work on virtual assets, which is an area that the FATF will continue to monitor.

**Fill in the gaps in the text using the terms below. Write your answer as a sequence of numbers.**

1. Auction houses
2. Virtual assets (VA)
3. Digital works of art
4. Non-fungible tokens
5. Blockchain
6. Market vulnerabilities
7. FATF

# Answer form (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **ANSWER** | | | | | | | | | | | | | | | |
| **CORRECTION** | | | | | | | | | | | | | | | |

# PROTOCOL OF ASSESSMENT OF WRITTEN WORK "International Relations" (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Maximum point | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 3 | 2 |
| Correct answer | B | D | B | 12121 | 14 | 4123 | 2356 | 23 | 134 | 329586147 | 146352 | 3478 | 4 | 315246 | 3512476 |
| Participant response | | | | | | | | | | | | | | | |
| Actual point | | | | | | | | | | | | | | | |
| Increase or decrease point based on the results of the appeal | | | | | | | | | | | | | | | |
| Final point including appeal | | | | | | | | | | | | | | | |

**SUM OF POINTS**

**RESULT OF THE APPEALS**

**FINAL GRADE**

**SIGNATURES OF JURY MEMBERS**

**SIGNATURE OF THE MEMBERS OF THE APPEALS COMMISSION**

**THE DATE**

**THE DATE**

**PARTICIPANT'S SIGNATURE**
*(ATTENTION! DO NOT indicate your full name or identify yourself in any other way! Otherwise – you will be disqualified!)*

**OLYMPIAD TASKS**
**in Information security (students)**

**1.** An organization has introduced a standard for employee passwords - any 8characters. Moreover, any ASCII characters with codes from 0 to 255 are allowed. Before conducting a brute-force attack, the attackers used social engineering methods to find out that the chief accountant's password included their year of birth written in four digits. How many times did this information reduce the number of steps (1 step - one attempt to guess) in the task of guessing a password by brute force in the maximum (worst) case, given that no other dictionaries or optimizations were used? Round your answer to an integer according to the rounding rules.

---

**2.** The attackers came up with a strange code to transmit data. Two number systems with bases < 10 are chosen so that the sum of the bases is 9. For example, 2 and 7, 4 and 5. Then the number is converted to these number systems. After that, the two new entries of the number are added according to the addition rules of the decimal number system. For example, 10 in systems 3 and 6: 31 and 14 => 31 + 14 = 45. The encrypted 10 is 45. Calculate what number was encrypted if the intercepted coded entry looks like 1132. It is not known in advance which number systems were selected.

---

**3.** Due to frequent loss of passwords by employees, the inexperienced head of the financial block of an organization ordered them to use 8 characters from their last name-first name-patronymic combinations written without spaces and hyphens (upper- and lower-case letters in their places). If the full name has more than 8 characters, he allowed the combination to be cut off from either side, for example, ИвановИванИванович can turn into ИвановИв or Иванович. Thus, now passwords consist only of lower- and upper-case Russian letters. Since the organization is small, it employs people who have only simple full names: 1 word for the last name (with one upper-case letter), 1 word for the first name (with one upper-case letter), 1 word for the patronymic (with one upper-case letter). The full name takes up at least 8 letters for all employees. The upper-case letters Ъ and Ь are not used. There are 33 letters in the Russian alphabet. Initially, any ASCII characters with codes from 0 to 255 were allowed in the password. The attackers learned about this order from the boss. They do not have a directory of names and surnames, so they decided to hack one of the accounts using simple brute force. How many steps (1 step is one attempt to guess) in the task of guessing a password by brute force in the maximum (worst) case will be required to crack the password, given that no other directories or optimizations were used?

Answer options:
1) 33 to the fifth power multiplied by 2862269
2) 33 to the fourth power multiplied by 286269
3) 33 to the third power multiplied by 2862269
4) 33 to the fourth power multiplied by 1462165
5) 33 to the sixth power multiplied by 286269
6) 33 to the sixth power multiplied by 2472268

---

**4.** A one-time code for logging into the system is generated with two-factor authentication and sent to the user via SMS or email. In case of failure (e.g. technical failures), the next attempt is made to send the code to the user. The probability of error-free transmission of the code during each individual attempt is 0.7. Determine the probability that no more than three attempts are required to transmit the code. Choose the correct answer.

Answer options:
1) 0,973
2) 0,343
3) 0,063
4) 0,657
5) 0,937
6) 0,027
7) 0,7

---

**5.** In a company, two-factor authentication uses an application that generates one-time codes — these are hardware tokens of the U2F (Universal 2nd Factor) standard. To get started, it is enough to connect the U2F token to the device and register it in a compatible service. Subsequently, if you need to confirm the login to this service, you will need to connect the U2F token to the device from which you log in and press the button on the token (in some devices, enter a PIN or put your finger on the scanner). When registering a token on the service, a pair of cryptographic keys — private and public is created. The public one is saved on the server, and the private one is stored in the Secure Element storage, which is the heart of the U2F token — and this key never leaves the device. The private key is used to encrypt the login confirmation,

which is transmitted to the server and can be decrypted using the public key. If someone tries to transmit a login confirmation encrypted with an incorrect private key on your behalf, you will get gibberish instead of a confirmation, and the service will not let you into your account when decrypted using a public key known to the service.
Let the private key store the base of the number system into which the login confirmation message will be converted and let the public key store the base of the number system into which the encrypted message needs to be converted.
The login confirmation message is formed from the ASCII codes of the characters of the original username and password.
And the private key is obtained by subtracting all subsequent digits from the first digit of the ASCII code of the original message (for example, from the number 621 you get the key: 6-2-1=3).
Determine what the encrypted message will be if the original message obtained from the ASCII codes is: **75423**. Write the answer as a sequence of numbers without spaces and commas.

---

**6.** The activities of a malicious actor who made a suspicious transaction for a large sum were examined during a joint investigation by financial intelligence and law enforcement agencies. An encrypted command history was found on the malicious actor's laptop seized, presumably it contained a password for a crypto wallet. It turned out that this command history was encrypted first using the ROT2 transformation, and then ROT3. During the interrogation, the criminal admitted using the Vigenere cipher 1 (one) time but doing so after all other manipulations. The encryption key was a combination of the thirteenth and the last letter of the alphabet.

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| B | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A |
| C | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B |
| D | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C |
| E | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D |
| F | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E |
| G | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F |
| H | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G |
| I | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H |
| J | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I |
| K | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J |
| L | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K |
| M | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L |
| N | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M |
| O | O | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| P | P | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
| Q | Q | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
| R | R | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
| S | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
| T | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S |
| U | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
| V | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
| W | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V |
| X | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
| Y | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X |
| Z | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y |

The encrypted command history looked as follows:
jwy vfwwme@127.0.0.1 -t 2212 z_pfav_vf$jzr! tek /ikg/gejwnh tek /ikg/gejwnh | gftsgc vbzx

If you find a password in this command history, choose only the English letters from it and determine the sum of their ordinal numbers in the English alphabet (numbering starts with one: a - 1, z - 26). Write down the answer as an integer.

If the password is not found in the command history, write down 0 (zero) in the answer.

---

**7.** An experienced user gave a six-digit PIN code to his trusted person using a square matrix of dimension 3 (three). He chose prime numbers as the elements of the matrix. It became known that the numbers in the matrix were not repeated. Moreover, numbers with minimal values were used as a set of prime numbers of the matrix to ensure one single condition - the sum of the elements in each row of the matrix is the same prime number.
Write out the PIN code digits in ascending order without separators (consolidated) if it is known that the PIN code is stored in one of the rows.

---

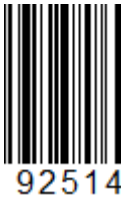
**8.** Financial security officers used an algorithm to create an EAN-5 barcode consisting of 5 digits to securely transmit the special bank account number. Each digit can be encoded in one of the two following ways in the EAN-5 encoding: L-code or G-code (shown in the table).

| Digit | L-code | G-code | Digit | L-code | G-code |
|---|---|---|---|---|---|
| 0 | 0001101 | 0100111 | 5 | 0110001 | 0111001 |
| 1 | 0011001 | 0110011 | 6 | 0101111 | 0000101 |
| 2 | 0010011 | 0011011 | 7 | 0111011 | 0010001 |
| 3 | 0111101 | 0100001 | 8 | 0110111 | 0001001 |
| 4 | 0100011 | 0011101 | 9 | 0001011 | 0010111 |

The choice of the method of encoding the digit depends on the structure of the barcode, which is based on the checksum. To calculate the checksum, you need to multiply the first digit by 3, the second by 9, and so on, each time alternating 3 and 9. Then you need to add up the results and perform the operation of taking the remainder from division by 10 on the sum. The result obtained will be the checksum, which determines the structure of the barcode (shown in the table).

| Checksum | Structure | Checksum | Structure |
|---|---|---|---|
| 0 | GGLLL | 5 | LLGGL |
| 1 | GLGLL | 6 | LLLGG |
| 2 | GLLGL | 7 | LGLGL |
| 3 | GLLLG | 8 | LGLLG |
| 4 | LGGLL | 9 | LLGLG |

Determine the unique personal customer number (the last 6 digits of the bank account) if it is known that it has been encoded as the reverse binary representation of the second and fourth digits in the EAN-5 92514 barcode (each barcode digit representation is converted from binary to decimal separately, and the most significant bit in the binary to decimal conversion is on the right in the barcode representation).




---

**9.** The simplest BCD format for representing unsigned integers is used to store amounts of money. All bits are divided into 4s. Each 4 represents one decimal digit. Only 4 bits from 0000 to 1001 (from 0 to 9 in the decimal system) are allowed. Then 4 digits fit into 16 bits. When transmitting such a number over the network, a failure occurred. All bits cyclically shifted to the left. The 0th - the most significant bit became the 15th, the 1st bit became 0, and so on until the 15th bit, which became the 14th. The error was not noticed, since the BCD number remained correct. What is the maximum difference between the original and the corrupted number in absolute value?

Answer options:
1) 7999
2) 9999
3) 9998
4) 8999
5) 6999
6) 8998

---

**10.** A financial intelligence officer received the following encrypted message from his colleague:
"A globe has been detected on a 7-level gold axis. Each level rotates and allows you to change the planet. Pay attention to the north pole level and don’t forget to take a phone directory with you."
What level of the network model does this encrypted message refer to? Choose the correct answer.

Answer options:
1) OSI Application Layer and DNS
2) OSI Transport Layer and TCP
3) OSI Session Layer and Connection Management
4) OSI Transport Layer and TCP, UDP Protocols
5) OSI Data Link Layer and its LLC Sublayer

# Answer form (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| **ANSWER** | | | | | | | | | | |
| **CORRECTION** | | | | | | | | | | |

# PROTOCOL OF ASSESSMENT OF WRITTEN WORK "Information Security" (students)

**PARTICIPANT CODE**

| Question number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum point | 5 | 5 | 4 | 4 | 6 | 6 | 6 | 6 | 4 | 4 |
| Correct answer | 858993459 | 15 | 1 | 1 | 1344065 | 126 | 111139 | 100076 | 1 | 1 |
| Participant response | | | | | | | | | | |
| Actual point | | | | | | | | | | |
| Increase or decrease point based on the results of the appeal | | | | | | | | | | |
| Final point including appeal | | | | | | | | | | |

**SUM OF POINTS**

**RESULT OF THE APPEALS**

**FINAL GRADE**

**SIGNATURES OF JURY MEMBERS**

**SIGNATURE OF THE MEMBERS OF THE APPEALS COMMISSION**

**THE DATE**

**THE DATE**