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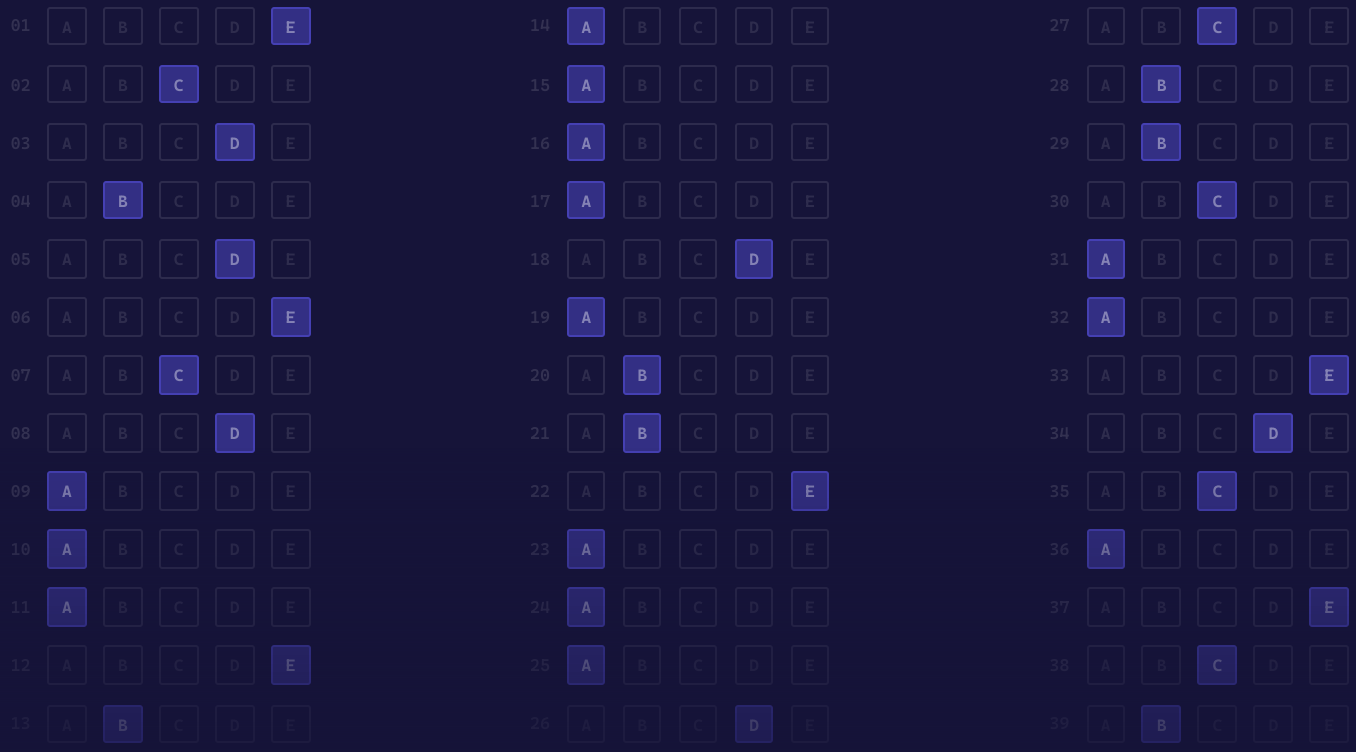

PRACTICE QUESTIONS

TTBU - The Testing Board Ukraine

2MDRU

Krok 2 Medicine (Russian)

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

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Before you begin

What this is

9 practice questions for TTBU - The Testing Board Ukraine `2MDRU`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `2MDRU`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

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QUESTION 1 SINGLE CHOICE

A 58-year-old man is brought to the emergency department 2 hours after the onset of crushing retrosternal chest pain radiating to the left arm, accompanied by sweating and dyspnea. ECG shows ST-segment elevation of 3 mm in leads II, III, and aVF. The most appropriate immediate pharmacological measure is the administration of:

A Morphine subcutaneously

B Aspirin orally and nitroglycerin sublingually

C Streptokinase intravenously

D Heparin subcutaneously

E Verapamil intravenously

ANSWER B

WHY In acute inferior STEMI (ST elevation in II, III, aVF), the first-line emergency measures are aspirin (to inhibit platelet aggregation) and nitroglycerin (to relieve ischemic pain and reduce myocardial oxygen demand), provided there are no contraindications (e.g., hypotension, RV infarction, recent PDE-5 inhibitor use). Thrombolytics such as streptokinase are given only when primary PCI is unavailable and within the appropriate time window. Heparin is an adjunct, not the primary immediate measure. Verapamil is contraindicated in acute STEMI with heart failure or conduction abnormalities.

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QUESTION 2 SINGLE CHOICE

An unconscious 45-year-old patient is admitted with pinpoint pupils, respirations of 8 per minute, and a blood pressure of 90/60 mm Hg. The most likely cause of this clinical picture is poisoning with:

A Atropine

B Organophosphates

C Opioid analgesics

D Barbiturates

E Carbon monoxide

ANSWER C

WHY The triad of coma (or stupor), pinpoint (miotic) pupils, and respiratory depression is the classic clinical picture of opioid (narcotic) poisoning. The antidote is naloxone. Atropine and organophosphate poisoning cause mydriasis, not miosis. Barbiturates typically produce normal- or mid-sized pupils. Carbon monoxide poisoning produces cherry-red skin color and metabolic acidosis, not pinpoint pupils.

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QUESTION 3 SINGLE CHOICE

A 22-year-old patient with type 1 diabetes mellitus is admitted with Kussmaul breathing, acetone odor of the breath, blood glucose of 28 mmol/L, and pH of 7.1. The first line of therapy is:

A Subcutaneous short-acting insulin

B Oral hypoglycemic agents

C Intravenous crystalline insulin with simultaneous infusion of isotonic saline

D 5% glucose solution intravenously

E Bicarbonate infusion as a first-line measure

ANSWER C

WHY Diabetic ketoacidotic coma requires immediate IV rehydration with isotonic saline (to restore intravascular volume) combined with continuous IV infusion of short-acting (crystalline) insulin. Subcutaneous insulin is inappropriate because of impaired peripheral perfusion. Oral hypoglycemics do not work in type 1 diabetes. Glucose infusion is added later when glycemia falls to 13–14 mmol/L. Sodium bicarbonate is used only if pH is below 7.0, and only after fluid and insulin therapy have been started.

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QUESTION 4 SINGLE CHOICE

A 30-year-old woman complains of weakness, brittle nails, and a craving to eat raw meat. Laboratory findings show: Hb 85 g/L, serum iron 7 μmol/L, total iron-binding capacity (TIBC) increased, ferritin decreased. The most likely diagnosis is:

A **Iron-deficiency anemia**

B Vitamin B12-deficiency anemia

C Hemolytic anemia

D Aplastic anemia

E Anemia of chronic disease

ANSWER **A**

WHY The combination of low serum iron, increased TIBC, decreased ferritin, microcytosis, and the classic clinical clues (koilonychia / brittle nails, pagophagia — craving for raw meat or ice) is characteristic of iron-deficiency anemia. In vitamin B12 deficiency, iron parameters are normal and neurological symptoms predominate. In anemia of chronic disease, ferritin is normal or increased and TIBC is decreased. Hemolytic and aplastic anemias have different mechanisms and lab patterns.

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QUESTION 5 SINGLE CHOICE

A pregnant woman at 34 weeks of gestation presents with sudden painless vaginal bleeding, a soft non-tender uterus, and a high fetal presentation. The most likely diagnosis is:

A Premature placental abruption

B Placenta previa

C Uterine rupture

D Vasa previa

E Cervical insufficiency

ANSWER B

WHY Painless vaginal bleeding in the second half of pregnancy with a soft, non-tender uterus and a high-lying or malpositioned presenting part is the classic presentation of placenta previa. Premature placental abruption is painful with a tense, tender uterus and dark venous bleeding. Uterine rupture is associated with sudden severe pain, loss of fetal station, and hemodynamic shock. Vasa previa causes bleeding only with rupture of membranes and fetal bradycardia. Cervical insufficiency produces painless cervical dilation without significant bleeding.

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QUESTION 6 SINGLE CHOICE

A 25-year-old patient develops jaundice, dark urine, and enlarged tender liver 6 weeks after a transfusion. Markers show HBsAg positive, anti-HBc IgM positive, HBeAg positive. The most likely diagnosis is:

A **Acute hepatitis B**

B Chronic hepatitis B (replicative phase)

C Acute hepatitis A

D Acute hepatitis C

E Hepatitis B carrier state

ANSWER A

WHY The combination of HBsAg positivity with anti-HBc IgM indicates recent/acute infection with hepatitis B virus; HBeAg indicates active viral replication. Anti-HBc IgM is a marker of acute infection — its presence excludes the chronic/carrier state, which is characterized by anti-HBc IgG. The post-transfusion timing (incubation of hepatitis B is 1.5–6 months) and absence of anti-HAV IgM rule out hepatitis A. Anti-HCV would be required to diagnose acute hepatitis C.

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QUESTION 7 SINGLE CHOICE

A 67-year-old man with hypertension suddenly develops right-sided hemiparesis, aphasia, and deviation of the eyes to the left. The most likely site of the lesion is the:

A Right frontal lobe

B Left middle cerebral artery territory

C Brainstem (pons)

D Cerebellum

E Left anterior cerebral artery territory

ANSWER **B**

WHY Contralateral hemiparesis (right-sided weakness), aphasia, and conjugate gaze deviation toward the side of the lesion are hallmark signs of an ischemic stroke in the left middle cerebral artery (MCA) territory, which supplies the lateral surface of the left hemisphere including Broca's and Wernicke's areas and the motor cortex of the face and upper limb. The anterior cerebral artery supplies mainly the lower limb. Brainstem strokes produce cranial nerve deficits and crossed signs. A right frontal lesion would produce left-sided weakness without aphasia in a right-handed patient.

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QUESTION 8 SINGLE CHOICE

A 3-year-old child presents with high fever, repeated vomiting, hemorrhagic rash on the trunk and limbs, and signs of shock. The most likely causative agent is:

A Streptococcus pneumoniae

B Neisseria meningitidis

C Haemophilus influenzae type b

D Staphylococcus aureus

E Pseudomonas aeruginosa

ANSWER B

WHY The combination of acute high fever, hemorrhagic (petechial/purpuric) rash, vomiting, and rapid progression to infectious-toxic shock in a young child is most characteristic of meningococcemia caused by Neisseria meningitidis. Pneumococcal and H. influenzae infections can cause meningitis but typically do not produce such an acute hemorrhagic rash with shock. Staphylococcal and pseudomonal infections are not typical causes of this presentation.

QUESTION 9 SINGLE CHOICE

A 55-year-old man is brought to the emergency department 30 minutes after the sudden onset of tearing, ripping chest pain radiating to the back, with a blood pressure of 200/110 mmHg in the right arm and 140/80 mmHg in the left arm. The most likely diagnosis is:

A Acute myocardial infarction

B Aortic dissection

C Pulmonary embolism

D Acute pericarditis

ANSWER B

WHY Sudden tearing chest pain radiating to the back with a significant (>20 mmHg) interarm blood pressure differential and severe hypertension is the classic presentation of aortic dissection. Acute MI typically presents with crushing substernal pain; pulmonary embolism with pleuritic pain, dyspnea and hemoptysis; pericarditis with positional sharp pain relieved by leaning forward.