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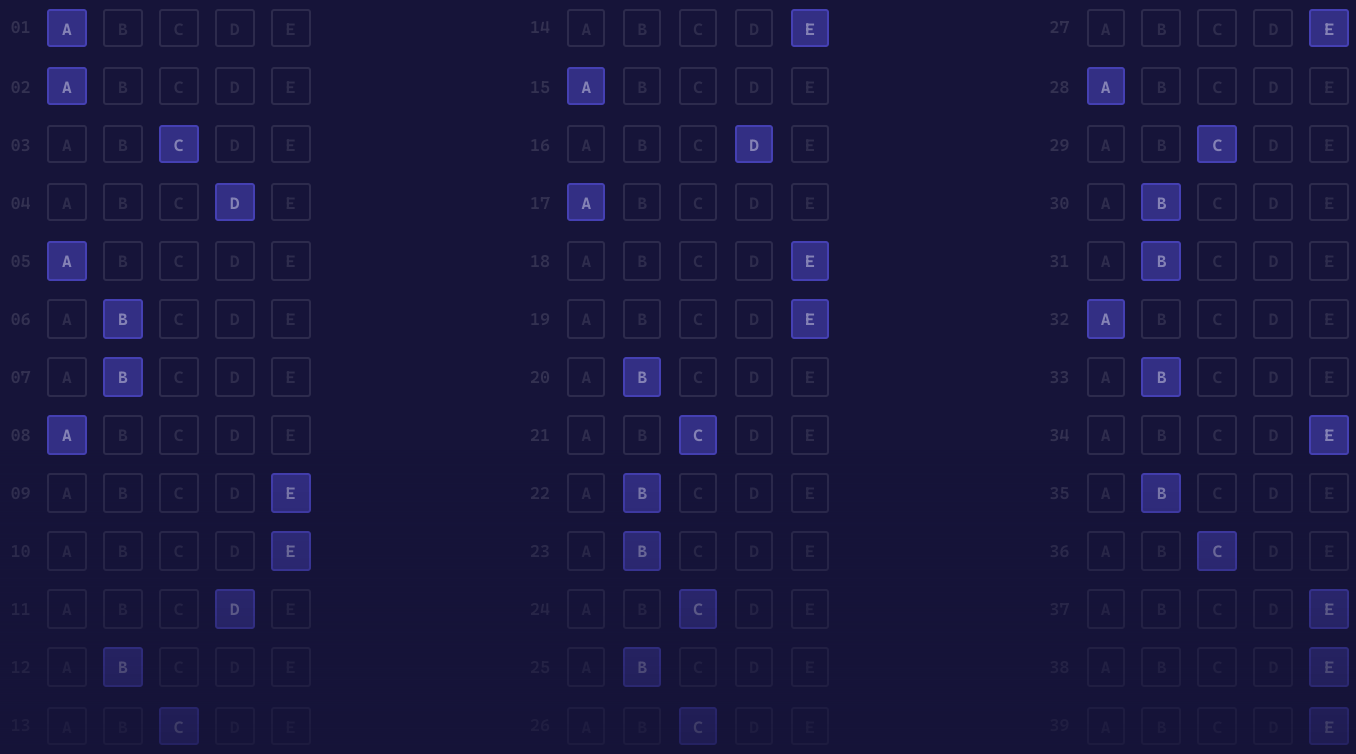

PRACTICE QUESTIONS

AAET - The Nerve Conduction Association

RNCST

AAET National Registry Exam for Nerve Conduction Studies

EDITION	QUESTIONS	ISSUED
Demo	9	September 4, 2026

WEB www.mometrix.net

SUPPORT support@mometrix.net

Before you begin

What this is

9 practice questions for AAET - The Nerve Conduction Association `RNCST`, 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, `RNCST`
- the question number
- the email address on your order

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

Licence

QUESTION 1 SINGLE CHOICE

A technologist is performing a routine motor nerve conduction study. Which electrode configuration is used to record the compound muscle action potential (CMAP)?

A **Active (E1) electrode placed over the muscle belly, reference (E2) over the tendon of the muscle**

B Active electrode placed over the nerve, reference electrode over a distant bony prominence

C Both active and reference electrodes placed directly over the muscle belly at the motor point

D Active electrode on the antagonist muscle, reference electrode on the agonist muscle

ANSWER **A**

WHY Standard CMAP recording uses an active electrode (E1) over the muscle belly near the motor point and a reference electrode (E2) over the tendon of the same muscle. This bipolar arrangement yields an initial negative deflection when stimulating a motor nerve.

QUESTION 2 SINGLE CHOICE

During a sensory nerve conduction study, the technologist notes excessive stimulus artifact obscuring the response. Which adjustment is most appropriate to reduce the stimulus artifact?

A Increase the low-frequency filter cutoff

B **Rotate the stimulating cathode position away from the recording electrodes**

C Decrease the stimulus duration

D Increase the amplifier gain

ANSWER **B**

WHY Stimulus artifact is reduced by ensuring the stimulating cathode is positioned away from the recording electrodes and by keeping the stimulating and recording leads perpendicular to each other. Filter, gain, and duration adjustments do not eliminate the artifact caused by physical proximity of the stimulating and recording circuits.

QUESTION 3 SINGLE CHOICE

When performing a median motor nerve conduction study at the wrist, where is the active recording electrode placed?

A **Over the abductor pollicis brevis (APB) muscle belly**

B Over the flexor carpi radialis muscle belly

C Over the first dorsal interosseous muscle belly

D Over the thenar eminence tendon insertion

ANSWER **A**

WHY The median motor study records from the abductor pollicis brevis (APB), which is the primary median-innervated thenar muscle. The reference electrode is placed over the APB tendon at the interphalangeal joint of the thumb.

QUESTION 4 SINGLE CHOICE

In a routine peroneal (fibular) motor nerve conduction study, which muscle is used as the recording site?

A Tibialis anterior

B **Extensor digitorum brevis**

C Gastrocnemius

D Peroneus longus

ANSWER **B**

WHY The extensor digitorum brevis (EDB) is the standard recording muscle for peroneal motor nerve conduction studies, with the active electrode over the EDB muscle belly and the reference over the lateral aspect of the fifth toe.

QUESTION 5 SINGLE CHOICE

A patient's skin temperature over the hand is measured at 28 °C prior to a median nerve study. According to standard NCS practice, what should the technologist do first?

A Proceed with the study; 28 °C is within acceptable limits

B Warm the limb to at least 32 °C before proceeding

C Cool the limb further to slow conduction for clearer waveforms

D Cancel the study and refer the patient for EMG only

ANSWER B

WHY Skin/limb temperature below approximately 32 °C slows nerve conduction velocity and prolongs distal latencies, which can produce falsely abnormal results. The limb must be warmed to at least 32 °C (and typically 33–34 °C for the hand) before testing.

QUESTION 6 SINGLE CHOICE

Which waveform measurement represents the latency from the stimulus artifact to the initial negative deflection of a CMAP?

A Distal motor latency

B Proximal motor latency

C Conduction velocity

D Amplitude peak-to-peak

ANSWER A

WHY Distal motor latency is the time interval between the stimulus artifact (onset) and the initial departure of the CMAP waveform from baseline (onset latency), measured in milliseconds. It reflects the conduction time along the distal motor nerve segment.

QUESTION 7 SINGLE CHOICE

Before attaching surface electrodes and stimulating a patient, what minimum patient information and preparation step is essential?

A Confirm the patient has eaten within the last hour

B **Verify patient identity, indication for the study, and obtain informed consent**

C Administer a topical anesthetic to the stimulation sites

D Obtain a full-body MRI to rule out metallic implants

ANSWER B

WHY Standard NCS practice requires verifying patient identity, confirming the clinical indication for the study, reviewing relevant contraindications (e.g., implanted devices, anticoagulation at needle sites), and obtaining informed consent before any testing is performed.

QUESTION 8 SINGLE CHOICE

A nerve conduction study demonstrates prolonged distal motor latency of the median nerve at the wrist with normal forearm conduction velocity and normal ulnar studies. These findings are most consistent with which condition?

A Generalized peripheral polyneuropathy

B **Carpal tunnel syndrome (median neuropathy at the wrist)**

C Cubital tunnel syndrome (ulnar neuropathy at the elbow)

D Cervical radiculopathy at C6

ANSWER B

WHY An isolated prolonged median distal motor latency with preserved forearm conduction velocity and normal ulnar nerve parameters localizes the abnormality to the wrist segment, consistent with carpal tunnel syndrome (median neuropathy at the wrist).

QUESTION 9 SINGLE CHOICE

Before initiating a nerve conduction study, the technologist reviews the patient's referral and history. Which of the following is the MOST important contraindication to confirm has been screened before stimulating over a limb?

A A history of mild seasonal allergies

B **A pacemaker or implanted cardiac defibrillator (ICD) when stimulating near the device**

C Patient preference for a morning appointment

D Recent consumption of a caffeinated beverage

ANSWER **B**

WHY Implanted cardiac devices (pacemakers, ICDs) are a recognized contraindication or require special precautions when electrical stimulation is applied near the device because the stimulus current can be interpreted as intrinsic cardiac activity. The other items are not meaningful contraindications to nerve conduction studies.