PROVISIONAL ANSWER KEY

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Category Code:	590/2024
Exam:	E E G Technician Grade II
Date of Test	27-08-2025
Department	Medical Education

Question1:-The Internal auditory artery is a branch of :

A:-Superior cerebellar artery

B:-Anterior inferior cerebellar artery

C:-Posterior cerebral artery

D:-Posterior inferior cerebellar artery

Correct Answer:- Option-B

Question2:-Which structure is part of Rhombencephalon :

A:-Medulla

B:-Thalamus

C:-Parietal lobe

D:-None of these

Correct Answer:- Option-A

Question3:-Cerebellar dysfunction can cause all of following EXCEPT :

A:-Tremor

B:-Agrammatism

C:-Motor weakness

D:-Dysmetria

Correct Answer:- Option-C

Question4:-Resting membrane potential of human skeletal muscle is about :

A:--70 mV

B:--45 mV

C:--80 mV

D:--90 mV

Correct Answer:- Option-D

Question5:-Jacobson's nerve is a branch of which cranial nerve?

A:-7th

B:-8th

C:-9th

D:-10th

Correct Answer:- Option-C

Question6:-Which of the following is NOT part of basal ganglia?

A:-Caudate nucleus

B:-Substantia nigra

C:-Putamen

D:-Cuneus

Correct Answer:- Option-D

Question7:-All of following are structural proteins of muscle EXCEPT :

A:-Myosin

B:-Desmin

C:-Titin

D:-Filamin

Correct Answer:- Option-A

Question8:-Which area is Brodmann area 39?

A:-Supramarginal gyrus

B:-Angular gyrus

C:-Wernicke's area

D:-Middle temporal gyrus

Correct Answer:- Option-B

Question9:-Which nerve is a branch of posterior cord of brachial plexus :

A:-Median nerve

B:-Ulnar nerve

C:-Radial nerve

D:-Musculocutaneous nerve

Correct Answer:- Option-C

Question10:-All of following are muscles of mastification EXCEPT :

A:-Medial pterygoid

B:-Lateral pterygoid

C:-Masseter

D:-Mylohyoid

Correct Answer:- Option-D

Question11:-Electromagnetic induction was discovered by :

A:-Michael Faraday

B:-James Clerk Maxwell

C:-Albert Einstein

D:-Isaac Newton

Correct Answer:- Option-A

Question12:-Static magnetic fields occur due to all EXCEPT :

A:-Nuclear spin

B:-Orbital momentum

C:-Electron spin

D:-Electric currents

Correct Answer:- Option-D

Question13:-All of following are solid state electronic devices EXCEPT :

A:-Transistor

B:-Vacuum tubes

C:-Integrated circuit

D:-Diode

Correct Answer:- Option-B

Question14:-Which of the following is a Fermion?

A:-Photon

B:-Gluon

C:-Higgs Boson

D:-Lepton

Correct Answer:- Option-D

Question15:-All are fundamental forces of nature EXCEPT :

A:-Gravitational force

B:-Weak nuclear force

C:-Electromagnetic force

D:-Frictional force

Correct Answer:- Option-D

Question16:-The father of Artificial Intelligence is :

A:-Charles Babbage

B:-Alan Turing

C:-John McCarthy

D:-Nikola Tesla

Correct Answer:- Option-C

Question17:-All of following are contributions of Albert Einstein EXCEPT :

A:-Brownian motion

B:-General theory of Relativity

C:-Photoelectric effect

D:-Classical mechanics

Correct Answer:- Option-D

Question18:-Which of following is the common language for Artificial Intelligence?

A:-Java

B:-Python

C:-Lisp

D:-PHP

Correct Answer:- Option-B

Question19:-The magnitude of Earth's magnetic field at surface :

A:-1 to 10 G

B:-0.25 to 0.65 G

C:-0.1 to 0.15 G

D:-2 to 6 G

Correct Answer:- Option-B

Question20:-ChatGPT was developed by :

A:-Google

B:-OpenAI

C:-Meta

D:-Baidu

Correct Answer:- Option-B

Question21:-EEG machine is a _____

A:-Differential amplifier

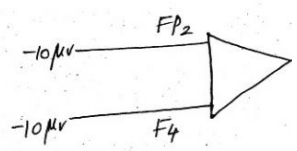
B:-Transconductance amplifier

C:-Vacuum tube amplifier

D:-None

Correct Answer:- Option-A

Question22:-If input 1 is - 10 µV and input 2 is - 10 µV What will be the channel output?



A:-

B:-

C:-

D:-

Correct Answer:- Option-C

Question23:-Which among the following is not a component of EEG machine?

A:-Recording electrodes

B:-Differential amplifier

C:-Digital to analog converter

D:-Display and storage device

Correct Answer:- Option-C

Question24:-Disc electrodes used in EEG recording are usually coated with

A:-Silver chloride

B:-Sodium chloride

C:-Silver sulphate

D:-Sodium sulphate

Correct Answer:- Option-A

Question25:-High pass filter is also known as

A:-High frequency filter

B:-Low frequency filter

C:-Notch filter

D:-None of the above

Correct Answer:- Option-B

Question26:-For ideal proper recording, the impedance between skin and electrodes should be below

A:-5 ohm (5 Ω)

B:-50 ohm (50 Ω)

C:-50 K ohm (50 KΩ)

D:-5 K ohm (5 kΩ)

Correct Answer:- Option-D

Question27:-When the external noise and power line potentials are similar in both inputs, which of the following removes it from the output?

A:-Common mode rejection

B:-Source based artefact rejection

C:-Automatic artefact rejection

D:-None

Correct Answer:- Option-A

Question28:-What is the usual sampling rate of most commercially available EEG instruments?

A:-2.4 Hz

B:-2.4 KHz

C:-24 KHz

D:-240 Hz

Correct Answer:- Option-D

Question29:-Which among the following should be routinely done to ensure electrical safety?
i. regular equipment maintenance
ii. use ground electrode
iii. connect electrodes to appropriate jack of input jack box
iv. use extension cords

A:-i, ii, iii, iv

B:-i, ii, iii

C:-i, iii, iv

D:-i, iv

Correct Answer:- Option-B

Question30:-Skin and subcutaneous tissues act as _____

A:-High frequency filter

B:-Low frequency filter

C:-Amplifier

D:-None

Correct Answer:- Option-A

Question31:-Eliciting which of the following waveforms do not require a supramaximal stimulation?

A:-H reflex

B:-F wave

C:-Both

D:-None

Correct Answer:- Option-A

Question32:-Preferred interelectrode distance between active and reference recording electrodes in sensory and mixed nerve recordings inorder to avoid lower amplitude potentials due to cancellation effect

A:-0.1-0.2 cm

B:-3-4 cm

C:-0.5 cm

D:-7.5 cm

Correct Answer:- Option-B

Question33:-Which of the following does not require an additional reference electrode to be placed while performing EMG recording?

A:-Concentric needle

B:-Monopolar needle

C:-Both

D:-None

Correct Answer:- Option-A

Question34:-Which of the following units is approximately equal to 6.24×10^{18} electrons?

A:-1 ohm

B:-1 coulomb

C:-1volt

D:-none

Correct Answer:- Option-B

Question35:-Which of the following law states that I = E/R or current equals voltage divided by resistance?

A:-Ohm's law

B:-Coulomb's law

C:-Faraday's law

D:-Kirchhoff's law

Correct Answer:- Option-A

Question36:-Net resistance is the sum of individual resistances, when resistors are connected?

A:-in parallel

B:-in series

C:-both

D:-none

Correct Answer:- Option-B

Question37:-In property of an electrical circuit that causes it to oppose any change in current is known as _____

A:-Resistance

B:-Capacitance

C:-Inductance

D:-None

Correct Answer:- Option-C

Question38:-Electrodiagnostic studies like nerve conduction should never be performed on patients with

A:-implanted pacemaker

B:-implanted cardioverter difibrillator

C:-external pacing wire

D:-recent open heart surgery

Correct Answer:- Option-C

Question39:-EEG depth electrodes may transmit which of the following diseases?

A:-AD (Alzheimer's dementia)

B:-CID (Creutzfeldt-Jakob disease)

C:-Stroke

D:-Multiple sclerosis

Correct Answer:- Option-B

Question40:-If input 1 is -70 mV and input 2 is - 50 mV, the channel output will show _____

A:-upward negative deflection

B:-downward positive deflection

C:-isoelectric line

D:-grant positive wave

Correct Answer:- Option-A

Question41:-Which among the following statement is correct regarding the generation of EEG Waveform?

A:-EEG records the action potential generated at the apical dendrites of pyramidal cells of the cerebral cortex

B:-EEG records the post-synaptic potential generated at the apical dendrites of pyramidal cells of the cerebral cortex

C:-EEG records action potentials generated at the dendrites of the molecular layer of the cerebral cortex

D:-EEG records the postsynaptic potentials generated at the dendrites of the molecular layer of the cerebral cortex

Correct Answer:- Option-B

Question42:-A seven-year-old girl who was diagnoed with moyamoya disease presented with new onset focal seizures. Which among the following activation procedure is contraindicated while performing an EEG?

A:-Sleep deprivation

B:-Intermittent Photic stimulation

C:-Hyperventilation

D:-Fixation off sensitivity

Correct Answer:- Option-C

Question43:-Who was the first person to record EEG in the human brain in 1924?

A:-Richard Caton

B:-Hans Berger

C:-Frederic Gibbs

D:-Baldev Singh

Correct Answer:- Option-B

Question44:-What is the definition of Sharp wave?

A:-Transient discharge with a duration of 20-70 msec.

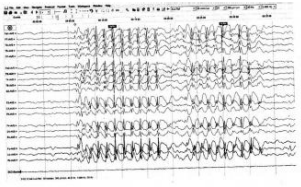
B:-Transient discharge with a duration of 70-200 msec.

C:-Transient discharge with a duration of 30-70 msec.

D:-Transient discharge with a duration of 200-300 msec.

Correct Answer:- Option-B

Question45:-A 7 year old boy with normal development presented with multiple staring episodes. He was evaluated with an EEG and the waveforms are depicted below. What will be the probable diagnosis?



A:-Juvenile myoclonic Epilepsy

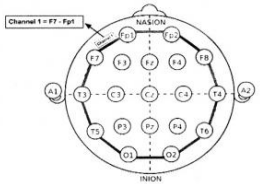
B:-Childhood absence Epilepsy

C:-Myoclonic astatic Epilepsy

D:-Doose syndrome

Correct Answer:- Option-B

Question46:-Name the montage system with which the electrodes are being connected?



A:-Double banana Montage

B:-Referential Montage

C:-Transverse Bipolar Montage

D:-Circumferential Montage

Correct Answer:- Option-D

Question47:-Which among the following statement is true regarding the frequency of EEG waveforms?

A:-Delta < Theta < Alpha < Beta

B:-Theta < Delta < Alpha < Beta

C:-Delta < Alpha < Theta < Beta

D:-Delta < Theta < Beta < Alpha

Correct Answer:- Option-A

Question48:-A 15 year old girl presented with focal seizure with aura. She was evaluated with an EEG which is shown below. Comment on the focus of the origin of epileptic activity.

A:-Left temporal

B:-Right temporal

C:-Right occipital

D:-Left occipital

Correct Answer:- Option-B

Question49:-Which among the following is not true regarding Mu rhythm?

A:-Centrally located alpha rhythm

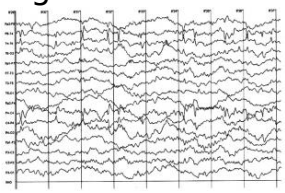
B:-Occipital predominant delta waves

C:-It has a frequency of 7-11 Hz

D:-It is blocked by movement of extremity

Correct Answer:- Option-B

Question50:-A 6 year old girl with normal development presented with episodes of transcient facial deviation associated with drooling of saliva and speech arrest without loss of awareness. These episodes are predominantly described in the night. An EEG was done and is depicted below. What will be the probable diagnosis?



A:-BECTS

B:-Panaytopaulose syndrome

C:-Childhood absence Epilepsy

D:-Occipital Epilepsy

Correct Answer:- Option-A

Question51:-Which among the following is not true regarding PSOY?

A:-These are occipital predominant alpha waves

B:-These are commonly seen in young children

C:-These are occipital predominant delta waves

D:-These are rarely seen before 2 years and after 21 years

Correct Answer:- Option-A

Question52:-Frequency of posterior rhythm reaches the adult frequency by the age?

A:-6-7 years

B:-3-6 years

C:-9-10 years

D:-14-15 years

Correct Answer:- Option-C

Question53:-Which among the following statement is not true regarding IED (Interictal Epileptiform discharges)?

A:-Sleep is a natural activator of IEDs

B:-IEDs are maximally activated in Stage 3 and 4 of NREM sleep

C:-IEDs are maximally activated in REM sleep

D:-Sleep activates IEDs in both focal and generalized Epilepsy

Correct Answer:- Option-C

Question54:-A 15-year-old girl with normal growth and development was admitted with the first episode of GTCS. While asking history she had a past history of myoclonic jerks and falls. The EEG recording is shown below. What will be the probable diagnosis?

A:-Juvenile absence Epilepsy

B:-Juvenile myoclonic Epilepsy

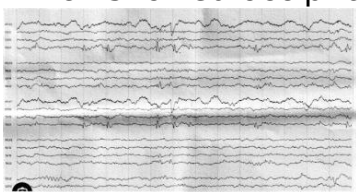
C:-Temporal lobe Epilepsy

D:-Frontal lobe Epilepsy

Correct Answer:- Option-B

Question55:-A 15-year-old girl with normal growth and development was brought to the Emergency department at around 5 a.m. According to her father, she woke up from sleep and complained of tummy ache and vomited once following which she became pale and floppy and lost consciousness. She was evaluated with an EEG

which showed occipital spikes. What will be the probable diagnosis?



A:-Childhood Epilepsy with centrotemporal spikes

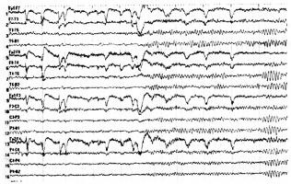
B:-Childhood Absence Epilepsy

C:-Panayiotopoulos Syndrome

D:-Idiopathic Occipital Epilepsy of Gestaut

Correct Answer:- Option-C

Question56:-Comment on the state of the patient based on the following, EEG?



A:-Awake and active state

B:-Drowsy state

C:-Sleep state

D:-Deep sleep

Correct Answer:- Option-A

Question57:-Which among the following is not true regarding SREDA?

A:-Most commonly seen in the elderly

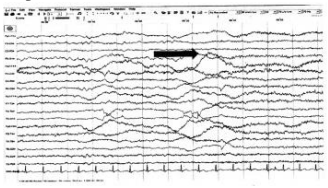
B:-Usually, benign

C:-Always Pathological

D:-Usually seen in the posterior Parieto temporal region

Correct Answer:- Option-C

Question58:-A 45-year-old lady presented with new onset seizures and autonomic dysfunction. Her EEG is shown below. What is your comment about the EEG?



A:-Electrocerebral dysfunction

B:-Sweat artifact

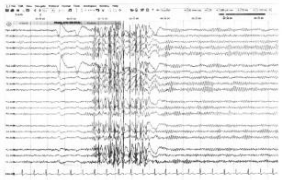
C:-Alpha coma

D:-ORIDA

Correct Answer:- Option-B

Question59:-20-year-old girl was admitted for the evaluation of drug refractory

seizures. An EEG was performed and whilegiving photic stimulation the following response was obtained. Comment on the abnormality.



A:-Photic drive

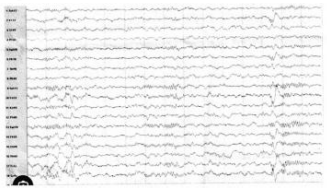
B:-Photomyogenic response

C:-Photoparoxysmal response

D:-Normal Sleep EEG

Correct Answer:- Option-C

Question60:-Comment about the following EEG.



A:-Normal awake EEG

B:-Normal sleep EEG

C:-Abnormal awake EEG

D:-Abnormal sleep EEG

Correct Answer:- Option-B

Question61:-F wave study from right median nerve in a patient shows a potential with constant latency and morphology located between the M and the F waves. Which of the following is TRUE regarding this potential?

A:-The presence of this wave confirms that supramaximal stimulus was used

B:-The wave becomes more prominent with increasing the stimulation current

C:-This waveform points to a proximal (root lesion) than distal lesion in the nerve

D:-Collateral sprouting during reinnervation is responsible for this waveform

Correct Answer:- Option-D

Question62:-Henneman's size principle refers to which of the following statements?

A:-The orderly recruitment of motor units from the smallest to the larger motor neurons with increasing force of contraction

B:-The property of depletion of the energy from the smallest storage source to the largest with increasing duration of activity

C:-Innveration of specific sensory receptors by nerve fibres in relation to the diameter of the nerve fibre

D:-The activation of neurons of the cerebral cortex in response to a stimulus follows an orderly fashion

Correct Answer:- Option-A

Question63:-Which of the following technical pitfalls may result in a falsely high decremental response in slow (3 Hz) repetitive nerve stimulation test for myasthenia gravis?

A:-Low skin temperature

B:-Use of submaximal stimulus

C:-Study of distal rather than proximal nerves

D:-Not withholding choline esterase inhibitors prior to the study

Correct Answer:- Option-B

Question64:-Which of the following nerve conduction features in a severely affected limb favour root avulsion as the etiology of a suspeced traumatic brachial plexus injury when performed 6 weeks after the injury?

i. Normal motor conduction studies
ii. Normal sensory conduction studies
iii. Fibrillations in the ipsilateral cervical paraspinal muscles

A:-Both (i) and (ii)

B:-Both (ii) and (iii)

C:-Both (i) and (iii)

D:-All of (i), (ii) and (iii)

Correct Answer:- Option-B

Question65:-What is the pathophysiological basis for contractures in the glycogen storage disease, McArdle's disease?

A:-Excessive inflow of calcium into sarcoplasmic reticulum

B:-Excessive outflow of sodium from myoplasm to the extracellular space

C:-Failure of relaxation due to ATP deficiency

D:-Failure to actin to move to active position

Correct Answer:- Option-C

Question66:-What is the EMG finding in a patient who has weakness due to an upper motor neuron dysfunction?

A:-Reduced activation

B:-Early recruitment

C:-Reduced recruitment

D:-Early activation

Correct Answer:- Option-A

Question67:-Which examination table (for patients) is preferable for nerve conduction studies and why?

A:-A metal table as it acts as an additional ground for the patient

B:-A metal table as it allows the positioning of the cot for patient transfer

C:-A wooden table as it is electrically safe and does not conduct electricity

D:-A wooden table as it acts as a thermal insulator

Correct Answer:- Option-C

Question68:-A patient has difficulty in relaxing hand muscles and stiffness of muscles. He is dignosed to have myotonic dystrophy type 1. What is the origin of the abnormal EMG insertional/spontaneous activity in this patient?

A:-Depolarization of a single muscle fibre and ephaptic spread to other fibres

B:-Irregular firing of denervated motor axons

C:-Spontaneous discharge of muscle fibres due to membrane hyper-excitability

D:-Spontaneous depolarization in demyelinated nerve segments

Correct Answer:- Option-C

Question69:-Which of the following is true regarding blink reflex study?

A:-The affarent is the supratrochlear nerve and efferent is the facial nerve

B:-It is ideal to record in repetitive stimulation mode

C:-A delay of R1, ipsilateral R2 and contralateral R2 indicates an ipsilateral facial neuropathy

D:-R2 latencies vary in the morphology and latency from stimulus to stimulus

Correct Answer:- Option-D

Question70:-What is the principle behind electronic averaging?

A:-Low noise to signal ratio

B:-Electrode impedance mismatch in recording and ground electrodes

C:-Differential amplification

D:-Randomness of electrical noise

Correct Answer:- Option-D

Question71:-Motor conduction study of ulnar nerve with forearm extended at elbow will result in

A:-Falsely high conduction velocity across elbow

B:-Falsely slow conduction velocity across elbow

C:-Partial conduction block across elbow

D:-Temporal dispersion across elbow

Correct Answer:- Option-B

Question72:-A markedly higher amplitude of ulnar motor conduction distally (at wrist) than proximally (below elbow) usually occurs with

A:-Conduction block of ulnar nerve across the below and above elbow sites

B:-Co-stimulation of median nerve at below elbow stimulation site

C:-A Martin-Gruber anastomosis with crossing fibres innervating hypothenar muslces

D:-Submaximal stimulation at the wrist and below elbow sites

Correct Answer:- Option-C

Question73:-Which of the following factors have led to the replacement of single

fibre EMG needle electrodes by concentric needle electrodes in jitter studies?

A:-Smaller surface area of recording of pediatric concentric needle

B:-Concentric needles are disposable

C:-Shorter time for recordings using concentric needles

D:-More reliable values of mean consecutive difference with concentric needle

Correct Answer:- Option-B

Question74:-Which component of motor unit potential (MUP) is maximally affected by the proximity of the muscle fibres of a motor unit to the needle?

A:-Amplitude

B:-Duration

C:-Phases

D:-Stability

Correct Answer:- Option-A

Question75:-A diabetic patient needs evaluation for autonomic neuropathy. Which of the following settings for nerve conduction study is the most appropriate one for the testing of sympathetic function from his hand?

A:-Time base 5 ms/division, Sensitivity 5 mV/division, Filters 2 Hz - 10 kHz

B:-Time base 1 ms/division, Sensitivity 29 µV/division, Filters 20 Hz - 30 kHz

C:-Time base 1000 ms/division, Sensitivity 500 µV/division, Filters 0.1 Hz - 500 kHz

D:-Time base 10 ms/division, Sensitivity 500 µV/division, Filters 2 Hz - 3 KHz

Correct Answer:- Option-C

Question76:-A 50% reduction in sensory nerve amplitudes across two sites of stimulation is not considered conduction block because

A:-Sensory nerves do not manifest demyelinating pathology

B:-The normal temporal dispersion and phase cancellation in sensory nerves can produce marked reduction in amplitude

C:-The amplitudes of sensory nerve potentials are inadequate to do multiple site stimulation

D:-Collision of antidromic and orthodromic stimuli will markedly reduce the sensory nerve amplitude

Correct Answer:- Option-B

Question77:-At what age in children does conduction velocities of limbs reach adult values?

A:-2-3 years

B:-3-5 years

C:-5-7 years

D:-8-10 years

Correct Answer:- Option-B

Question78:-Which of the following recordings should be performed at submaximal stimulation?

A:-H reflex

B:-F wave study

C:-Collision studies

D:-Mixed nerve conduction study

Correct Answer:- Option-A

Question79:-An abnormality due to low temperature is identified with the combination of

A:-Low amplitude, prolonged peak latency, low conduction velocity

B:-Low amplitude, shortened peak latency, high conduction velocity

C:-High amplitude, prolonged peak latency, low conduction velocity

D:-High amplitude, shortened peak latency, high conduction velocity

Correct Answer:- Option-C

Question80:-Which of the following exercise tests simulates fast repetitive nerve stimulation?

A:-20 minutes exercise test

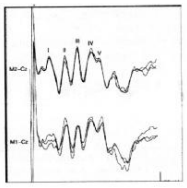
B:-5 minutes exercise test

C:-1 minute exercise test

D:-10 second exercise test

Correct Answer:- Option-D

Question81:-Identify this wave form



A:-Visual evoked potential

B:-Brainstem Auditory Evoked potentials

C:-Somatosensory Evoked Potentials

D:-Motor Evoked Potentials

Correct Answer:- Option-B

Question82:-A 17 year old girl presented with progressive numbness and weakness of her left hand of 1 year duration. No history of neck pain or bladder involvement. On examination there was prominent wasting and weakness of the thenar and less prominently, the hypothenar muscles with weakness of left thumb abduction. Sensation was impaired over little finger, ring finger, medial forearm and arm. Nerve conduction study showed low CMAP amplitude in both the median and ulnar motor nerves, preferentially affecting the median-innervated thenar muscles. Median and ulnar distal latencies and conduction velocities were slightly slowed. The sensory nerve conduction studies showed normal median SNAP and the ulnar

SNAP is low in amplitude. What is the diagnosis?

A:-C8-T1 Radiculopathy

B:-Upper trunk plexopathy

C:-Ulnar neuropathy

D:-Neurogenic thoraic outlet syndrome

Correct Answer:- Option-D

Question83:-The reasons for a normal SNAP in an area of numbness are all except that

A:-The lesion is a chronic neuropathy

B:-The lesion is hyperacute (i.e. <6-10 days old for sensory fibres)

C:-The lesion is proximal to the dorsal root ganglion, either at the level of the nerve roots or more centrally located in the spinal cord or brain

D:-The lesion is one of proximal demyelination, possibly conduction block, which leaves the axon relatively intact

Correct Answer:- Option-A

Question84:-Prolongation of the absolute latency of the EP (N9) waveform in somatosensory evoked potentials (SSEP) indicates what?

A:-The lesion is in the dorsal column pathway proximal to the brachial plexus but distal to the cervical spinal cord

B:-Peripheral neuropathy

C:-A lesion between the cervical spinal cord and the contralateral somatosensory cortex

D:-The lesion is more proximal, between the medulla and somatosensory cortex likely contra lateral to the side of stimulation

Correct Answer:- Option-B

Question85:-The following are features of primary demyelinating polyneuropathy except

A:-Markedly prolonged distal latencies (> 130% of the upper limit of normal)

B:-Markedly slowed conduction velocities (usually <75% of lower limit of normal)

C:-Markedly prolonged or absent late responses (>130% of the upper limit of normal)

D:-Markedly decreased motor and sensory amplitudes

Correct Answer:- Option-D

Question86:-Which among the following is used intraoperatively to monitor motor pathway such as corticospinal tract?

A:-Motor Evoked Potentials (MEP)

B:-Brainstem Auditory Evoked Potentials (BAEP)

C:-Somatosensory Evoked Potentials (SSEP)

D:-Nerve Conduction Studies and Electromyography

Correct Answer:- Option-A

Question87:-Single-Fiber Electromyography (SFEMG) is used for evaluation of which disease?

A:-Myopathy

B:-Neuropathy

C:-Myasthenia gravis

D:-Amyotrophic lateral sclerosis

Correct Answer:- Option-C

Question88:-Myopathies with denervating features are all except

A:-Polymyositis

B:-Sarcoid myopathy

C:-Inclusion body myositis

D:-Mytonia congenita

Correct Answer:- Option-D

Question89:-Conditions associated with small, short, polyphasic motor unit action potentials are all except

A:-Myopathy

B:-Amyotrophic lateral sclerosis

C:-Myasthenia gravis

D:-Early reinnervation after severe denervation

Correct Answer:- Option-B

Question90:-A 25 year old lady was admitted in intensive care unit for 2 weeks with severe pneumonia and sepsis. She required ventilator support for 1 week. She developed generalized weakness, numbness and wasting. NCS study showed reduced CMAP and SNAP amplitude with normal latency and conduction velocity. RNS was normal. The most suitable diagnosis is

A:-Myasthenia gravis

B:-Motor neuron disease

C:-Critical illness neuropathy

D:-Periodic paralysis

Correct Answer:- Option-C

Question91:-Name the test that measure brain function equivalent to EEG in that the same neuronal sources that generate electrical activity also give rise to magnetic fields.

A:-Quantitative Electroencephalogram (QEEG)

B:-Amplitude-integrated EEG (aEEG)

C:-Transcranial Magnetic Stimulation (TMS)

D:-Magnetoencephalography (MEG)

Correct Answer:- Option-D

Question92:-Which type of Visual Evoked Potential (VEP) is used for young children or other patients who cannot maintain focus on a checkerboard pattern or patients whose visual acuity is so poor that they cannot differentiate between the dark and the light squares?

A:-Flash VEP

B:-Pattern-reversal VEP

C:-Full field VEP

D:-Pattern onset VEP

Correct Answer:- Option-A

Question93:-What are the EEG criteria to diagnose brain death?
1. The EEG with minimum of eight scalp electrodes and an inter electrode distance of at least 10 cm.
2. EEG should show electro cerebral silence, which necessitates no electrical potentials of more than 5 mV.
3. 30-minute recording of EEG is required.
4. EEG should show electro cerebral silence, which necessitates no electrical potentials of more than 2 mV.

A:-1, 2 and 3

B:-1 and 4

C:-2, 3 and 4

D:-1, 3 and 4

Correct Answer:- Option-D

Question94:-What are true about 'Trace discontinu' in EEG?
1. An important EEG maturational milestone, as it is the first EEG pattern to emerge that differentiates wakefulness from sleep in the premature infant.
2. It consists of bursts of high-amplitude (≤200 μV) activity separated by periods of relative quiescence with amplitudes of less than 25 μV.
3. The bursts are composed of normal theta and delta activity.
4. By 32 to 34 weeks of conceptional age, the trace discontinu pattern is well developed.

A:-1, 2, 3 and 4

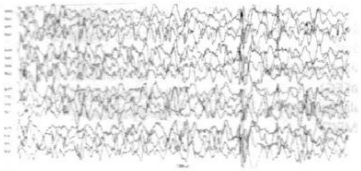
B:-3 and 4

C:-1, 2 and 3

D:-2, 3 and 4

Correct Answer:- Option-A

Question95:-



This is the EEG of a 4 month old child with developmental delay and seizures in the form of flexor spasm. What is the abnormality shown in EEG?

A:-Generalized spike and wave discharges

B:-Hypsarhythmia

C:-Burst suppression

D:-Slow spikewave activity

Correct Answer:- Option-B

Question96:-What are the indications for invasive EEG?

1. To define seizure generator and tailor surgical resection.
2. Mapping of cortical function.
3. Relationship existing between lesion and seizure focus.
4. For prognosis

A:-1, 2 and 3

B:-2, 3 and 4

C:-1, 2 and 4

D:-All

Correct Answer:- Option-D

Question97:-All features are true about triphasic waves except

A:-They are typically bifrontally predominant

B:-On a bipolar montage, they appear as complex discharges that include three phases

C:-They are commonly seen in primary generalized epilepsy

D:-A fronto-occipital delay, or phase lag is often present on longitudinal bipolar montages

Correct Answer:- Option-C

Question98:-What is known as BANCAUD phenomenon?

A:-Focal attenuation of beta activity

B:-Unilateral failure of the alpha rhythm to attenuate with eye opening occurs with posterior subcortical lesions

C:-Unilateral attenuation or absence of alpha rhythm usually occurs with lesions of the occipital cortex and anterior ventral thalamus

D:-Skull defects enhance the scalp-recorded voltage of sleep spindles and vertex waves

Correct Answer:- Option-B

Question99:-What is the average size of cortical sources that produce typical scalp EEG potentials?

A:-$10cm^2$

B:-$4cm^2$

C:-$16cm^2$

D:-$6cm^2$

Correct Answer:- Option-D

Question100:-Weakness or paralysis of the serratus anterior characteristically results in "winging" of the scapula. Which nerve paralysis cause this?

A:-Axillary nerve

B:-Suprascapular nerve

C:-Long thoracic nerve

D:-Spina accessory nerve

Correct Answer:- Option-C