

पुस्तिका में पृष्ठों की संख्या : 24
Number of Pages in Booklet : 24

पुस्तिका में प्रश्नों की संख्या : 180
No. of Questions in Booklet : 180

प्रश्न-पत्र पुस्तिका संख्या /

Question Paper Booklet No.

5203281

SSAPNu-02

Paper Code : 27

SUBJECT : Neurology

समय : 3.00 घण्टे

Time : 3.00 Hours

परीक्षा दिनांक :- 13/08/2020

परीक्षा समय :- 2:00 To 5:00

अधिकतम अंक : 180

Maximum Marks : 180

प्रश्न-पत्र पुस्तिका एवं उत्तर पत्रक के पेपर सील/पॉलिथीन बैग को खोलने के बाद परीक्षार्थी प्रश्न-पत्र पुस्तिका संख्या को उत्तर पत्रक पर सावधानीपूर्वक अंकित करें। इसमें किसी भी प्रकार की त्रुटि होने पर जिम्मेदारी अभ्यर्थी की होगी।

The candidate fill the Question Paper Booklet No. on Answer Sheet carefully after opening the Paper Seal / Polythene bag. Candidate himself shall be responsible for any error.

परीक्षार्थियों के लिए निर्देश

1. सभी प्रश्नों के उत्तर दीजिए।
2. सभी प्रश्नों के अंक समान हैं।
3. प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
4. एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
5. प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः 1, 2, 3, 4 अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर पत्रक पर नीले बॉल प्वाइंट पेन से गहरा करना है।
6. OMR उत्तर पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्र निकाल कर ध्यान से केवल नीले बॉल पॉइंट पेन से विवरण भरें।
7. प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा। गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
8. मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
9. कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानीपूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।

चेतावनी: अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

INSTRUCTIONS FOR CANDIDATES

1. Answer all questions.
2. All questions carry equal marks.
3. Only one answer is to be given for each question.
4. If more than one answers are marked, it would be treated as wrong answer.
5. Each question has four alternative responses marked serially as 1, 2, 3, 4. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
6. The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with blue ball point pen only.
7. 1/3 part of the mark(s) of each question will be deducted for each wrong answer. A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
8. Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
9. Please correctly fill your Roll Number in O.M.R. Sheet. 5 Marks can be deducted for filling wrong or incomplete Roll Number.

Warning : If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।

Do not open this Test Booklet until you are asked to do so.

27 - □



1. The mechanism of motor dysfunction produced by Botulinum toxin is
 - (1) Failed ACh release from the presynaptic nerve terminal
 - (2) Anterior horn cell destruction
 - (3) Inhibition of intracellular protein production
 - (4) Muscle inflammation

2. What medical condition is associated with and can directly contribute to idiopathic intracranial hypertension (IIH)?
 - (1) Obesity
 - (2) Hyperthyroidism
 - (3) Migraine headache disorder
 - (4) Diet controlled non-insulin dependent diabetes mellitus

3. 22-year-old woman presents to your clinic. She describes 2 months of decreased vision in her left eye. Her vision declined over several days and by one week she had lost all vision out of the left eye. She has mild associated periorbital pain. She has had no recovery of her vision since this time. Physical exam of the left eye shows light perception only with a relative afferent pupillary defect. Which of the following characteristics of this case make it atypical for optic neuritis?
 - (1) Age
 - (2) Lack of spontaneous recovery
 - (3) Gender
 - (4) Periorbital pain

4. What additional deficit would be expected in patients with a lesion that involves nucleus of the right cranial nerve 6?
 - (1) A right facial palsy
 - (2) A left gaze paralysis
 - (3) A right gaze preference
 - (4) An isolated abduction deficit in the right eye

5. Of the muscles listed below, which one remains uninvolved in a median nerve lesion proximal to the elbow?
 - (1) Flexor carpi ulnaris
 - (2) Pronator teres
 - (3) Flexor carpi radialis
 - (4) Flexor pollicis longus

6. A 60-year-old female with blepharospasm returns to your clinic 1.5 months after your injection with botulinum toxin type A. She reports the squeezing of her eyes shut is much improved but she continues to have problems with her eyes not wanting to open. What is the most likely cause of her sub-optimal response to her botulinum toxin injection?
 - (1) Concomitant dry eye
 - (2) Apraxia of eyelid opening
 - (3) Inadequate dose of botulinum toxin
 - (4) Endogenous antibodies to botulinum toxin type A

7. Natalizumab targets which of the following?
 - (1) Sphingosine-1-phosphate receptor
 - (2) CD20+ cells
 - (3) Alpha-4-integrin
 - (4) Membrane attack complex (complement)

8. What is the mechanism of action of tiagabine ?
- (1) Sodium channel blocker
 - (2) Direct interaction with the GABA-A receptor
 - (3) Inhibition of GABA reuptake
 - (4) Calcium channel blocker
9. Which of the following has NOT been associated with increased disability in patients with multiple sclerosis ?
- (1) Hypertension
 - (2) Hypovitaminosis D
 - (3) Cannabis Indica use
 - (4) Obesity
10. What is the mechanism of action of vigabatrin ?
- (1) Inhibition of GABA transaminase
 - (2) Sodium channel blocker
 - (3) Calcium channel blocker
 - (4) Blockade of NMDA receptors
11. Which of the following anti-epileptic medications acts by promoting slow inactivation of voltage-gated sodium channels ?
- (1) Carbamazepine
 - (2) Lacosamide
 - (3) Lamotrigine
 - (4) Sodium valproate
12. Which of the following neurological complications has been associated with Zika virus infection ?
- (1) Myasthenia gravis
 - (2) Guillain-Barre syndrome
 - (3) Acute myositis
 - (4) Optic neuritis
13. Which of the following language deficits classically follows lesions of the dominant inferior parietal lobule, involving the angular gyrus ?
- (1) Broca's aphasia
 - (2) Alexia with agraphia
 - (3) Alexia without agraphia
 - (4) Pure word deafness
14. Which of the following carries a black box warning for increased risk of suicidal ideation ?
- (1) Tetrabenazine
 - (2) Aspirin
 - (3) Naprosyn
 - (4) Pantoprazole
15. Which of the following is true about the use of dimethyl fumarate in the treatment of multiple sclerosis ?
- (1) Flushing and gastrointestinal problems are its most common side effects
 - (2) It is the only oral medication approved for treatment of primary progressive multiple sclerosis
 - (3) It was the first oral medication approved for the treatment of multiple sclerosis
 - (4) It is a pill taken once daily
16. All of the following are common side effects of stimulant medications, EXCEPT
- (1) appetite suppression
 - (2) hypertension
 - (3) loss of vision
 - (4) delayed onset of sleep



17. Which of the following statement defines prosody ?
- (1) A combination of individual sound units
 - (2) The rhythm and intonation of speech
 - (3) The smallest unit of written language that conveys unique information
 - (4) The meaning of language
18. All of the following have been demonstrated to be effective treatment for obsessive-compulsive disorder (OCD), EXCEPT
- (1) clomipramine
 - (2) cognitive behavioral therapy
 - (3) deep brain stimulation
 - (4) propranolol
19. Which of the following drugs is a mixed agonist-antagonist commonly used in the treatment of chronic pain and opiate addiction ?
- (1) Tramadol
 - (2) Buprenorphine
 - (3) Morphine
 - (4) Pregabalin
20. Which of the following are true of action for mannitol ?
- (1) Mannitol acts to increase the osmotic gradient across the blood-brain barrier (BBB)
 - (2) Mannitol transiently increases intravascular volume
 - (3) Mannitol decreases blood viscosity
 - (4) All of the above
21. Carbidopa is administered in combination with levodopa in patients with Parkinson's disease for which of the following reasons ?
- (1) It is a potent inhibitor of aromatic amino acid decarboxylase
 - (2) It is a potent inhibitor of dopamine-B hydroxylase
 - (3) It promotes central nervous system tyrosine hydroxylase activity
 - (4) It promotes dopamine-B hydroxylase activity
22. All of the following are listed in the diagnostic criteria for behavioral variant of frontotemporal dementia (bvFTD), except
- (1) behavioral disinhibition
 - (2) perseverative or compulsive behaviours
 - (3) frontal atrophy on brain imaging
 - (4) score of ≤ 25 on the mini-mental state examination
23. A seven-year-old girl is referred for brief spells of eye fluttering and inattention, Routine EEG shows 3 Hz spike and wave provoked by hyperventilation, which coincided with a typical spell. The first line anti-epileptic medication for this condition acts on which molecular target ?
- (1) Voltage-gated sodium channel
 - (2) GABA-A Receptor
 - (3) SV2A Protein
 - (4) T-type Calcium Channel

24. In which of the vitamin deficiency spinal MRI shows T2 signal abnormalities in the lateral or posterior columns ?
- (1) Vitamin A deficiency
 - (2) Vitamin B1 deficiency
 - (3) Vitamin B12 deficiency
 - (4) Vitamin B9 deficiency
25. Which interventions have been shown to improve the behavioral symptoms of autistic spectrum disorders ?
- (1) Applied behavior analysis
 - (2) Habit reversal therapy
 - (3) Second generation antipsychotic medications
 - (4) (1) and (3)
26. Which of the following is most frequent type of migraine ?
- (1) Migraine without aura
 - (2) Migraine with aura
 - (3) Complicated migraine
 - (4) None of the above
27. Which of following are risk factors for epilepsy ?
- (1) Alzheimer's disease
 - (2) Major depression
 - (3) Chronic alcohol intake
 - (4) All of the above
28. Causes of seizure related deaths include
- (1) deaths from status epilepticus
 - (2) accidents due to seizures
 - (3) SUDEP
 - (4) All of the above
29. Which of the following drugs acts by irreversibly inactivating its target ?
- (1) Levetiracetam
 - (2) Valproic acid
 - (3) Vigabatrin
 - (4) Carbamazepine
30. Hyperthymia, considered a state on the mania spectrum, is associated with all of the following, EXCEPT
- (1) elevated activity
 - (2) excessive optimism
 - (3) psychosis
 - (4) hypertalkative
31. Which of the following is true regarding speech and language ?
- (1) Language is the use of spoken, written, and/or other symbols to express, represent, or receive communication
 - (2) Language is the mechanical production of verbal output
 - (3) Speech refers to the meaning of language
 - (4) Disorders of speech and language are rarely comorbid
32. Which of the following genetic profiles connotes the greatest risk for the development of early onset Alzheimer disease ?
- (1) Apolipoprotein $\epsilon 4$ (APOE $\epsilon 4$) homozygous carrier
 - (2) Triggering receptor expressed on myeloid cells 2 (TREM2) mutation
 - (3) Presenilin 1 mutation
 - (4) Microtubule-associated protein tau (MAPT) mutation



33. Which of the following interferon, used as a disease-modifying treatment in multiple sclerosis, has the least frequent dosing schedule ?
- (1) Low-dose interferon beta-1 a
 - (2) High-dose interferon beta-1 a
 - (3) Interferon beta-1 b
 - (4) Pegylated interferon
34. Which of the following is an effective reversal agent for rivaroxaban ?
- (1) Protamine sulfate
 - (2) Vitamin K
 - (3) Andexanet alfa
 - (4) Tranexamic acid
35. Fingolimod targets which of the following ?
- (1) CD20 B-cells
 - (2) CD4 and CD8 T-cells
 - (3) Membrane attack complex (complement)
 - (4) Sphingosine-1-phosphate receptor
36. All of the following modifiable risk factors impact one's risk for Alzheimer disease (AD), except
- (1) Cigarette smoking
 - (2) Diabetes
 - (3) Physical inactivity
 - (4) Traumatic brain injury
37. Baclofen is helpful in the treatment of spasticity via which of the following mechanisms of action ?
- (1) Competitive agonist at the benzodiazepine site
 - (2) Glutamic acid decarboxylase inhibitor
 - (3) NMDA inhibitor
 - (4) Competitive agonist at GABA-B receptors
38. The anticoagulant effect of warfarin is mediated via which of the following mechanisms of action ?
- (1) Vitamin K epoxide reductase inhibition
 - (2) Cyclooxygenase inhibition
 - (3) Direct factor 10 a inhibition
 - (4) Direct thrombin inhibition
39. Which of the following is true regarding relapses in multiple sclerosis ?
- (1) They consist of new worsening symptoms lasting more than 10 hours.
 - (2) MRI evidence of relapse is contrast enhancing lesion
 - (3) They often occur in the presence of fever or infection
 - (4) Because by definition they are transient, they do not result in progression of disability
40. Which of the following medications is a non-competitive antagonist at AMP A receptors ?
- (1) Clobazam
 - (2) Perampanel
 - (3) Pregabalin
 - (4) Levetiracetam
41. Which of the statement is true regarding Alcoholic neuropathy ?
- (1) It is a mixed sensory & motor disorder of large & small diameter nerve fibers
 - (2) It is a sensory neuropathy
 - (3) It is a motor neuropathy
 - (4) None of the above

42. Which of the following medications carries an elevated risk of widening the QRS complex and prolonging the QTc interval ?
- (1) Carbamazepine
 - (2) Levetiracetam
 - (3) Pregabalin
 - (4) Topiramate
43. A 50-year-old woman was diagnosed with clinically isolated syndrome following an episode of optic neuritis 1 years ago. Which of the following factors increases her risk of later developing MS ?
- (1) Absence of a gadolinium-enhancing lesions on brain MRI
 - (2) Absence of unique oligoclonal bands on CSF evaluation
 - (3) Female gender
 - (4) Higher number of T2 lesions on brain MRI
44. Which of the following is true about multiple sclerosis ?
- (1) Men and women are equally affected.
 - (2) In familial cases, multiple sclerosis follows a non-Mendelian pattern of inheritance.
 - (3) Several genetic loci have been associated with a higher risk for developing multiple sclerosis, most of these with roles in the immune system.
 - (4) Several antigens that trigger inflammation in multiple sclerosis have been identified.
45. Which of the following are epilepsy mimics ?
- (1) Breath holding spells
 - (2) Limb shaking TIA
 - (3) Stereotypies
 - (4) All of the above
46. All of the following are risks associated with use of rivastigmine for the treatment of dementia, except
- (1) physiologic dependence
 - (2) nausea and vomiting
 - (3) conduction blocks
 - (4) vivid dreams
47. Which of the following statements regarding West Nile neuroinvasive disease (WNND) is accurate ?
- (1) Cerebrospinal fluid analysis is often normal
 - (2) Steroids, if started early enough, hastens recovery
 - (3) Approximately 50% of patients with WNND do not survive the illness
 - (4) Abnormalities on MRI are best detected on flair and involve basal ganglia thalamus and cerebellum
48. All of the following are components of the DSM-V diagnostic criteria for major depressive disorder, EXCEPT
- (1) persistence of depressive symptoms for a continuous period of at least 3 months
 - (2) diminished interest in most, if not all, activities most days
 - (3) feelings of worthlessness or excessive guilt
 - (4) recurrent thoughts of death or suicidal ideation

49. Which of the following tests evaluates primarily attention ?
- (1) Boston naming test
 - (2) Montreal cognitive assessment
 - (3) Spell word backwards
 - (4) Clock drawing
50. Which of the following medications is most likely to be beneficial in a patient with hepatic encephalopathy ?
- (1) Rifaximin
 - (2) Oral vancomycin
 - (3) Flumazenil
 - (4) Naloxone
51. Which of the following treatments/interventions has been shown to decrease the future risk of dementia due to Alzheimer disease or slow progression of disease ?
- (1) Daily physical exercise
 - (2) Daily use of partial NMDA-receptor antagonists (e.g. memantine)
 - (3) Daily use of cholinesterase inhibitors (e.g., donepezil)
 - (4) Dietary supplementation with turmeric
52. A 40-year-old woman with secondary progressive multiple sclerosis complains of urinary urgency. Which of the following is the most appropriate for an initial therapeutic trial ?
- (1) Botulinum toxin
 - (2) Darifenacin
 - (3) Mirabegren
 - (4) Oxybutynin CR
53. A 64-year old woman presents with a language deficit following a stroke. Her main deficit is impaired repetition. Fluency is minimally impaired with some paraphasic errors. Naming is mostly normal. Comprehension is intact. What is the classic localization of her deficit ?
- (1) Left posterior inferior frontal lobe
 - (2) Left thalamus
 - (3) Arcuate fasciculus
 - (4) Left caudate head and surrounding white matter
54. What is the mechanism of action of phenobarbital ?
- (1) Calcium channel blocker
 - (2) Sodium channel blocker
 - (3) NMDA Receptor
 - (4) By enhancing GABA
55. Which of the following medications used in the management of multiple sclerosis has been associated with a rebound increase in disease activity after discontinuation of treatment ?
- (1) Glatiramer acetate
 - (2) Interferon beta
 - (3) Natalizumab
 - (4) Teriflunomide
56. Tobacco alcohol amblyopia is a
- (1) Centrocecal scotoma
 - (2) Quadrantanopia
 - (3) Hemianopia
 - (4) None of the above

57. Which of the following neurotransmitters is incorrectly paired with the amino acid it is synthesized from?
- (1) Norepinephrine and tyrosine
 - (2) Serotonin and tryptophan
 - (3) GABA and aspartate
 - (4) Histamine and histidine
58. Optic neuritis and longitudinally extensive transverse myelitis are cardinal features of NMO. All of the syndromes below satisfy clinical criteria for neuromyelitis optica, except
- (1) cerebellar vermis syndrome
 - (2) cerebral symptoms
 - (3) brainstem syndrome
 - (4) area postrema syndrome
59. What is the target antigen of NMO-IgG?
- (1) Double-stranded DNA
 - (2) Aquaporin-4
 - (3) Leucine rich glioma inactivated 1 (LGI1)
 - (4) Muscle specific kinase
60. What is the mechanism of action of Memantine?
- (1) AMPA receptor antagonist
 - (2) Cholinesterase inhibitor
 - (3) NMDA receptor antagonist
 - (4) histone deacetylase inhibitor
61. All of the following are side effects of intravenous mannitol, except
- (1) Renal failure
 - (2) Liver failure
 - (3) Rebound intracranial hypertension
 - (4) Hyponatremia
62. All of the following are true of lithium, EXCEPT
- (1) The half-life of lithium allows for once daily dosing
 - (2) A practical disadvantage to lithium use in the bipolar population is its narrow therapeutic index
 - (3) Common side effects of lithium include tremor and weight gain
 - (4) Common side effects of lithium include hypothyroidism and polyuria
63. Which of the following presentations of multiple sclerosis (MS) affects men and women at similar rates?
- (1) Primary-progressive MS
 - (2) Relapsing-remitting MS
 - (3) (1) and (2)
 - (4) None of the above
64. In restless leg syndrome all are true except
- (1) It is most common movement disorder
 - (2) It is lifelong sensory-motor neurological disorder
 - (3) These patients do not have periodic leg movements
 - (4) Prevalence is greater in women
65. All of the following factors are well-recognized risk factors for the development of Alzheimer disease, except
- (1) female gender
 - (2) age
 - (3) APOE4 allele
 - (4) occupation

66. Which of the following is true regarding varicella-zoster virus ?
- (1) It is an enterovirus
 - (2) After primary infection the virus usually becomes latent in anterior horn cells
 - (3) Reactivation of the virus causes varicella ("chickenpox")
 - (4) A decline in virus-specific cell-mediated immunity leads to reactivation
67. Which of the following drugs used in the disease-modifying treatment of multiple sclerosis has the best safety rating during pregnancy ?
- (1) Teriflunomide
 - (2) Fingolimod
 - (3) Dimethyl fumarate
 - (4) Glatiramer acetate
68. Which of the following anti-hypertensives has evidence supporting its use in migraine prevention ?
- (1) Atenolol
 - (2) Amlodipine
 - (3) Telmisartan
 - (4) Hydrochlorothiazide
69. Which one of the following medications causes slow inactivation of voltage-gated sodium channel as a mechanism of antiepileptic action ?
- (1) Pregabalin
 - (2) Perampanel
 - (3) Lacosamide
 - (4) Clobazam
70. All of the following are signs/symptoms included in the diagnostic criteria for attention deficit hyperactivity disorder, EXCEPT
- (1) often does not seem to listen when spoken to directly
 - (2) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort
 - (3) is often forgetful in daily activities
 - (4) improvement of symptoms with stimulant medication
71. All of the following life-style factors represent potentially reversible modifiers of dementia risk, EXCEPT
- (1) midlife hypertension
 - (2) consumption of diet sodas
 - (3) smoking
 - (4) diabetes mellitus
72. Which of the following changes in CSF biomarkers best predicts cognitive impairment in patients with Alzheimer disease ?
- (1) Decreases in amyloid-beta-42
 - (2) Increases in CSF tau proteins
 - (3) Increase in 14-3-3
 - (4) (1) and (2)
73. In about how many of patients with epilepsy first EEG is normal ?
- (1) 30%
 - (2) 40%
 - (3) 50%
 - (4) 60%
74. Which of the following medications is a good alternative to ibuprofen in handling both the headaches and the menstrual cramping in a woman with migraine attacks ?
- (1) Oxycodone
 - (2) Naproxen
 - (3) Acetaminophen
 - (4) Butalbital, acetaminophen, caffeine

75. You are asked to evaluate a 16-month-old girl for seizures. She developed normally until she was 12 months old and then lost verbal and motor skills. Her mother describes frequent hand wringing and inconsolable crying.

What is true of this child's disorder ?

- (1) Autosomal dominant
- (2) Autosomal recessive
- (3) Occurs almost exclusively in females
- (4) X-linked recessive

76. A 7-year-old patient has episodes of uncontrollable laughter. She has history of early pubertal changes. In the last month, there have been new convulsive events. A brain MRI is done, given your strong clinical suspicion for which of the following ?

- (1) Cortical tubers
- (2) Hypothalamic hamartoma
- (3) Mesial temporal lobe sclerosis
- (4) Multiple sclerosis

77. One type of congenital myasthenic syndrome is the slow channel syndrome. "Slow channel" refers to which of the following ?

- (1) Prolonged open time of acetylcholine receptor channel
- (2) Prolonged slow inactivation of nicotinic acetylcholine receptor
- (3) Slow opening of acetylcholine receptor
- (4) Slow opening of voltage-gated sodium channel

78. All of the following are required for a diagnosis of acute disseminated encephalomyelitis, EXCEPT

- (1) feve, encephalopathy, and multifocal presentation
- (2) multifocal T2 lesions predominantly affecting white matter of both brain and spinal cord and great majority of them enhance
- (3) CSF showing low sugar
- (4) multifocal central nervous system event following exposure to virus or receipt of vaccine

79. A 19 year-old man presents for evaluation of abnormal behaviors in sleep. One to two times per week he will go to sleep in wake up in a different part of the house with no recollection of how he got there.

Which of the following characteristics would favor a diagnosis of a NREM parasomnia over nocturnal seizures ?

- (1) Stereotyped events
- (2) Distinct onset and offset
- (3) Long duration (greater than 5 minutes)
- (4) Exacerbation by sleep deprivation

80. Which of the following is the advantage of VNS over antiepileptic drugs ?

- (1) Causes hoarseness of voice
- (2) Causes coughing
- (3) It does not cause sleepiness, dizziness, cognitive dysfunction
- (4) Causes worsening of obstructive sleep apnea

81. The posterior fontanel is formed by the junction of which sutures ?

- (1) Lambdoid and coronal
- (2) Lambdoid and metopic
- (3) Sagittal and coronal
- (4) Sagittal and lambdoid



82. Which antiepileptic drug is not an appropriate choice when rapid onset of action is needed ?
- (1) Lamotrigine
 - (2) Oxcarbazepine
 - (3) Levitiracetam
 - (4) None of the above
83. A 6-year-old girl is referred to your clinic for nocturnal episodes. Which features frontal lobe seizures as the etiology of these events, rather than night terrors ?
- (1) Extremely inconsolable with thrashing movements and complete amnesia to the event
 - (2) Multiple family members have exhibited the same behavior
 - (3) Occurs multiple times per night, nearly every night
 - (4) Typically occurs 2 to 4 hours after sleep onset
84. Becker muscular dystrophy is distinguished from Duchenne muscular dystrophy by which of the following findings ?
- (1) Preserved ambulation beyond 15 years of age
 - (2) CK values under 5,000 IU/L
 - (3) Absence of cardiomyopathy
 - (4) Normal pulmonary function
85. Which of the following conditions shows a complete response to indomethacin ?
- (1) Cluster headache
 - (2) Migraines
 - (3) Hypnic headache
 - (4) Paroxysmal hemicrania
86. Deficiency of copper classically leads to
- (1) myelopathy or myeloneuropathy
 - (2) encephalopathy
 - (3) myopathy
 - (4) None of the above
87. Which of the following is TRUE about short-lasting unilateral neuralgiform headache attacks with conjunctival injection and lacrimation (SUNCT) ?
- (1) The pain most commonly involves the second division of the trigeminal nerve (V2)
 - (2) Attacks can be triggered by alcohol consumption
 - (3) It is highly responsive to treatment with indomethacin
 - (4) Secondary forms are seen with posterior fossa and pituitary lesions
88. At what age are cafe-au-lait patches typically visible and sufficient in number to meet the diagnostic criteria for neurofibromatosis ?
- (1) At birth
 - (2) By age six years
 - (3) By the end of puberty
 - (4) By age 25 years
89. Which of the following skin findings is not associated with tuberous sclerosis ?
- (1) Ash-leaf spots
 - (2) Cafe Au lait spots
 - (3) Angiofibromas of the nail beds
 - (4) A rubbery patch of skin over lower trunk

90. Common comorbidities requiring multi-disciplinary care in Duchenne muscular dystrophy include all of the following except
- (1) impaired pulmonary function
 - (2) cardiomyopathy
 - (3) scoliosis
 - (4) seizures
91. Which of the following is true of the ABC/2 method in intracerebral haemorrhage (ICH) ?
- (1) This is an accurate way to assess for the "spot sign"
 - (2) This is best done using T2 weighted MRI sequences
 - (3) Slices where the hematoma is < 25% of the reference slice should not be counted in the calculation
 - (4) None of the above
92. An 8-year-old boy presents for evaluation of abnormal movements. For the past 6 months, he has experienced episodes suggestive of foot dystonia. He is unable to use his leg during an episode, which can last 1-2 minutes. The episodes always start when he stands up quickly. He does not lose consciousness. There is no reported worsening throughout the course of the day. Electroencephalogram during a spell is normal. His father had a similar problem as a child.
- Which of the following is true about his condition ?
- (1) Carbamazepine is contraindicated for treatment of his condition
 - (2) It is associated with mutations in the PRRT2 gene
 - (3) It is associated with mutations in the SCN1A gene
 - (4) It is inherited in an X-linked dominant fashion
93. A 17-year-old man with epilepsy describes seizures characterized by intermittent, brief arm jerking episodes after waking in the morning which have caused him to spill his coffee and break cups in the past. What type of seizure is this description most consistent with ?
- (1) Atonic
 - (2) Tonic
 - (3) Clonic
 - (4) Myoclonic
94. Which of the following tests are recommended as part of the standard evaluation when diagnosing epilepsy in adults ?
- (1) Electroencephalography only
 - (2) Brain imaging only
 - (3) Electroencephalography and brain imaging, preferably computerized tomography of the head
 - (4) Electroencephalography and brain imaging, preferably magnetic resonance imaging of the brain
95. What is the most common cause of neonatal seizures ?
- (1) Congenital malformation
 - (2) Hypoxic-ischemic encephalopathy
 - (3) Idiopathic
 - (4) Meningitis/sepsis
96. Which of the following is true regarding Cluster Headaches ?
- (1) It affects women more than men
 - (2) It is a holocranial headache disorder
 - (3) It is the most painful recurrent headache
 - (4) The majority of patients have the chronic form



97. A surgery resident is about to start working the night shift (7 PM to 7 AM) over the next 14 days.

Which of the following measures may help her adjust to her new work schedule ?

- (1) Bright light in the morning on the way home from work
- (2) Bright light at night on her way to work and during the beginning of the work period
- (3) High dose melatonin before work
- (4) Alcohol before bedtime

98. A 30 year old woman with migraine episodes 5-6 time per month is taking Naprosyn as and when required.

What is the next best step in treatment ?

- (1) Add combination acetaminophen, caffeine
- (2) Admit the patient to the hospital for dihydroergotamine infusion
- (3) Change to rizatriptan
- (4) Start preventive therapy

99. Which of the following medications is approved for treatment of daytime sleepiness in narcolepsy-cataplexy ?

- (1) Eszopiclone
- (2) Venlafaxine
- (3) Imipramine
- (4) Modafinil

100. Which statement is true about ITH ?

- (1) It occurs more frequently in obese women than men
- (2) It occurs more frequently in men than women
- (3) It occurs more frequently in children
- (4) None of the above

101. A 30 year-old woman presents with 14 months of headaches. She has some degree of mild-moderate left temporal pain all the time which is tolerable, but 4-5 times per month she has exacerbations of severe pain in the same area associated with photophobia limited to the left eye and nausea. She also notices a foreign-body sensation in her left eye and that her left nostril feels stuffy during exacerbations. These attacks last up to 48 hours without treatment. Alcohol does not trigger her headaches.

Which of the following headache disorders is this patient most likely suffering from ?

- (1) Cluster headache
- (2) Migraine headache
- (3) Hemicrania continua
- (4) Trigeminal neuralgia

102. Brachycephaly is caused by premature fusion of which suture ?

- (1) Coronal
- (2) Lambdoid
- (3) Metopic
- (4) Sagittal

103. Oral bioavailability of the following is high :

- (1) Ethosuccimide
- (2) Valproate
- (3) Clobazam
- (4) All of the above

104. Which of the following headache can also occur during sleep in addition to daytime ?

- (1) Cluster headache
- (2) Migraine
- (3) Chronic paroxysmal hemicranias
- (4) All of the above

105. A ten-year-old girl has malignant hyperthermia during a routine surgical procedure. Her grandparents report that several family members, both male and female, have had muscle weakness since childhood. What disease are these family members most likely to have ?

- (1) Nemaline rod myopathy
- (2) Centronuclear myopathy
- (3) Central core myopathy
- (4) Becker muscular dystrophy

106. Cortex remains smooth in which of the developmental disorder ?

- (1) Lissencephaly
- (2) Microcephaly
- (3) Schizencephaly
- (4) None of the above

107. Which of the following are paroxysmal movement disorders that can be confused with epilepsy ?

- (1) Hyperekplexia
- (2) Paroxysmal dyskinesia
- (3) Non epileptic myoclonus
- (4) All of the above

108. Which of the following is associated with medication induced intracranial hypertension ?

- (1) Initiation of high-dose corticosteroids
- (2) Tetracycline
- (3) Fluoxetine
- (4) Topiramate

109. When evaluating a patient with a spell of loss of consciousness differentiating between seizures and syncope can present a clinical challenge. Which of the following features would typically argue in favor of seizure (as opposed to syncope) in any given case ?

- (1) Staring with cry
- (2) Prodromal pallor and diaphoresis
- (3) Being preceded by a feeling lightheaded
- (4) Biting of the tip of the tongue

110. Acetylcholinesterase inhibitors have been shown to reduce psychosis in which of the following neurodegenerative disorders ?

- (1) Alzheimer disease (AD)
- (2) Parkinson disease (PD)
- (3) Dementia with Lewy bodies (DLB)
- (4) All of the above

111. What is true about prion diseases ?

- (1) A group of uniformly fatal neurodegenerative diseases
- (2) Most patients survive
- (3) Few patients die
- (4) None of the above

112. What is not true about palatal myoclonus ?

- (1) It is also classified as segmental myoclonus
- (2) Affects man & women equally
- (3) Patients complain of audible ear clicks
- (4) Easy to treat

113. Cerebellar ataxia can be caused by

- (1) alcohol
- (2) hypothyroidism
- (3) anticonvulsants drug toxicity
- (4) All of the above



114. A 62-year-old gentleman presents to the emergency department after a 20-minute episode of left sided weakness which completely resolved prior to arrival. An MRI of the brain demonstrates a punctate area of restricted-diffusion in the right internal capsule.
- Which of the following is the correct diagnosis in this case ?
- (1) Transient ischemic attack
 - (2) Hemorrhagic stroke
 - (3) Ischemic stroke
 - (4) Complicated migraine
115. Which of the following are autosomal recessive ataxias ?
- (1) Friedreich ataxia
 - (2) Abetalipoproteinemia
 - (3) Ataxia telangiectasia
 - (4) All of the above
116. All of the following are arboviruses associated with neurologic disease in humans except
- (1) West Nile virus
 - (2) Dengue virus
 - (3) Zika virus
 - (4) Poliovirus
117. Which of the following is most common malignancy associated with paraneoplastic neuropathies ?
- (1) Small cell carcinoma of lung
 - (2) Carcinoma of breast
 - (3) Carcinoma of ovaries
 - (4) Hodgkin and non-hodgkin lymphoma
118. Which of the following genes is not linked to autosomal recessive Parkinson disease ?
- (1) PRKN
 - (2) PINK1
 - (3) DJ-1
 - (4) MAPT
119. A twelve-year-old girl loses control of her bicycle while riding downhill and reaches for a tree branch with her right arm to stop herself. She is sent by her neurosurgeon for EMG four weeks later with a suspected Klumpke brachial plexus injury. All the following would be consistent with this diagnosis, except
- (1) right Horner's syndrome
 - (2) absent ulnar sensory nerve action potential
 - (3) fibrillations and positive sharp waves in the brachioradialis
 - (4) fibrillations and positive sharp waves in the abductor pollicis brevis
120. Beyond genetic testing, which of the following diagnostic tests is often used when considering a diagnosis of Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy (CADASIL) ?
- (1) Liver biopsy
 - (2) Skin biopsy
 - (3) Muscle biopsy
 - (4) Nerve biopsy

121. A 27 year-old previously healthy woman presents to the emergency room complaining of right-sided headache and neck pain which started suddenly during her yoga class. On examination she appears in pain but the exam is otherwise notable only for ptosis and miosis on her right side. Which of the following diagnoses is most likely in this case ?
- (1) Cerebral venous sinus thrombosis
 - (2) Subarachnoid hemorrhage
 - (3) Migraine with brainstem aura
 - (4) Carotid artery dissection
122. Which nucleus innervates the left superior rectus muscle and which nucleus innervates the left superior oblique muscle (respectively) ?
- (1) The right 3rd nerve nucleus; the right 4th nerve nucleus
 - (2) The left 3rd nerve nucleus; the left 4th nerve nucleus
 - (3) The right 3rd nerve nucleus; the left 4th nerve nucleus
 - (4) The left 3rd nerve nucleus; the right 4th nerve nucleus
123. The ICH score was designed as a clinical grading tool to estimate which of the following ?
- (1) 90-day modified Rankin score
 - (2) probability of herniation
 - (3) risk for hematoma expansion
 - (4) 30-day mortality
124. What is the mechanism of action of Tetanus toxin ?
- (1) Disinhibition of anterior horn cells and autonomic neurons
 - (2) Anterior horn cell destruction/dysfunction
 - (3) Inhibition of intracellular protein production
 - (4) Direct myotoxicity with secondary inflammation
125. Brief episodes of vertigo lasting for seconds to minutes occurring suddenly without any apparent trigger are known as
- (1) Vestibular paroxysmia
 - (2) BPPV
 - (3) Menieres disease
 - (4) None of the above
126. Which of the following are variants of Guillian Barre syndrome ?
- (1) Miller Fisher syndrome
 - (2) Acute ataxic neuropathy
 - (3) Acute pandysautonomia
 - (4) All of the above
127. A 20-year-old male with a history of hypertension and bilateral carpal tunnel syndrome presents to the sleep clinic for evaluation of suspected sleep apnea based on symptoms of loud snoring, waking up gasping during the night and daytime sleepiness. His examination is notable for frontal bossing, an enlarged tongue, enlarged thyroid and large hands and feet. Which of the following tests would be most appropriate in the evaluation of this patient ?
- (1) Insulin like growth factor-1
 - (2) Prolactin
 - (3) Cortisol
 - (4) Thyroid stimulating hormone
128. Antibodies targeting the aquaporin-4 (AQP4) protein have been implicated in the pathogenesis of neuromyelitis optica. AQP4 is thought to be primarily localized to which cell type of the central nervous system ?
- (1) Neurons
 - (2) Oligodendrocytes
 - (3) Astrocytes
 - (4) Endothelial cells



129. Damage to the MLF results into

- (1) INO
- (2) 6th nerve palsy
- (3) 3rd nerve palsy
- (4) lateral gaze palsy

130. Which is the most common antecedent event of Guillian Barre syndrome ?

- (1) Respiratory illness
- (2) Gastro intestinal illness
- (3) Surgery
- (4) Vaccination

131. Everolimus is approved for, and has demonstrated efficacy in treating, which type of tumor ?

- (1) Epithelioma
- (2) Cortical tuber
- (3) Subependymal giant cell astrocytoma
- (4) Plexiform neurofibroma

132. Indications for cEEG monitoring in the ICU are

- (1) Status epilepticus
- (2) Screening for NCSE among high risk patients
- (3) To characterize 'spells' suspected to represent seizures
- (4) All of the above

133. 3Hz spike & wave paroxysms on EEG occur in

- (1) absence epilepsy
- (2) myoclonic epilepsy
- (3) complex partial epilepsy
- (4) all of the above

134. If 30-year-old lady presents with recurrent episodes of dizziness and vertigo. The episodes come on gradually over a period of approximately 15 minutes, last 4-5 hours, then spontaneously resolve. Which of the following additional symptoms would most strongly suggest a diagnosis of vestibular migraine ?

- (1) Photophobia with throbbing unilateral headache
- (2) Ataxia with tinnitus and headache
- (3) Aural fullness with low-frequency hearing impairment
- (4) Unilateral spontaneously-resolving weakness

135. Which one of the following medications potentiates GAB A effects ?

- (1) Carbamazepine
- (2) Perampanel
- (3) Lacosamide
- (4) Clobazam

136. A 60-year-old man is admitted to the ICU with systolic heart failure (EF of 20%). You are consulted for fluctuating hypersomnolence and periods of complete unresponsiveness. MRI shows acute infarction in the bilateral thalami. Which of these vascular variants is the most likely cause of these infarcts ?

- (1) Persistent trigeminal artery
- (2) Fetal origin of the posterior cerebral artery (PCA)
- (3) Artery of Percheron
- (4) Fenestration of the anterior communicating artery (ACOMM)

137. 7th nerve exits from skull via which of the following foramen ?

- (1) Stylomastoid foramen
- (2) Foramen ovale
- (3) Jugular foramen
- (4) Foramen rotundum

138. Which of the following does NOT contribute to the formation of the blood brain barrier ?

- (1) Astrocytes
- (2) Microglia
- (3) Tight junctions
- (4) Basement membrane

139. Which of the following interventions/factors has NOT been proven to influence the risk of developing a post-lumbar puncture headache ?

- (1) Use of an atraumatic needle
- (2) Bedrest post-procedure
- (3) Replacement of the stylet prior to removal of the needle
- (4) Use of a higher gauge (20 G) needle for the procedure

140. When the brain suffers a concussion, biomechanical forces cause membrane disruption and changes in ionic flux that are most likely to result in which of the following ?

- (1) Efflux of sodium
- (2) Influx of potassium
- (3) Sequestration of calcium into the mitochondria
- (4) Reduced glutamate release

141. Which of the following statements is true regarding giant cell arteritis ?

- (1) It affects small-sized arteries
- (2) It predominantly affects people between 30 and 50 years-old
- (3) Jaw claudication is its most common presenting symptom
- (4) ESR and/or CRP are elevated in 90-95% of cases

142. Which of the following best describes the pattern of relapse rate in multiple sclerosis during pregnancy ?

- (1) Its lowest in the first trimester
- (2) Its lowest in the second trimester
- (3) Its lowest in the third trimester
- (4) It is increased throughout all trimesters of pregnancy compared to prepregnancy rates

143. Which of the following findings on brain magnetic resonance imaging (MRI) is suggestive of spontaneous intracranial hypotension ?

- (1) Leptomeningeal enhancement
- (2) Enlargement of the basal cisterns
- (3) Inferior displacement of optic chiasm
- (4) Collapse of the cerebral venous sinuses

144. Which of the following substances has been implicated as the most likely cause of the imaging findings in hepato cerebral degeneration ?

- (1) Iron
- (2) Aluminum
- (3) Calcium
- (4) Manganese

145. Elevated serum cholesterol is a marker for which of the following disorders ?

- (1) Cerebrotendinous xanthomatosis
- (2) Farber disease (ceramidase deficiency)
- (3) Niemann-Pick, type C
- (4) Smith-Lemli-Opitz disease



146. A 25-year-old woman presents with proximal weakness and a CK of 1,256 IU/L and is found to be seropositive for Jo-1 antibodies. Which of the following tests would be most important to check given the presence of this antibody ?
- (1) A serum aldolase
 - (2) A whole blood aldolase
 - (3) MRI of the wrists and hands to screen for erosive arthritis
 - (4) High resolution chest CT to screen for interstitial lung disease
147. In a patient presenting with optic neuritis, Which of the following features is suggestive of neuromyelitis optica (NMO) as opposed to optic neuritis due to multiple sclerosis (MS) ?
- (1) Abnormal brain magnetic resonance imaging (MRI)
 - (2) Absence of pain with eye movements
 - (3) Complete recovery of vision
 - (4) Bilateral presentation
148. Bilateral independent periodic discharges are most often observed in
- (1) Herpes simplex encephalitis
 - (2) Anoxic encephalopathy
 - (3) (1) and (2)
 - (4) None of the above
149. 20 years old man comes with complaints of 5 -8 episodes of unilateral headache every day localized to Rt orbit. They are associated with lacrimation and nasal congestion. Possible diagnoses are
- (1) Common migraine
 - (2) Classical migraine
 - (3) Cluster headache
 - (4) Tension headache
150. Friedrichs ataxia is caused by mutation of a gene locus on which chromosome ?
- (1) Chromosome 4
 - (2) Chromosome 9
 - (3) Chromosome 19
 - (4) Chromosome 14
151. All of the following are the hallmark symptoms of Narcolepsy except
- (1) daytime sleepiness
 - (2) loud snoring
 - (3) cataplexy
 - (4) sleep paralysis
152. The word epilepsy means "to seize" comes from which language ?
- (1) Greek
 - (2) French
 - (3) Italian
 - (4) Spanish
153. Which one of the following groups of patients who have had symptoms due to carotid stenosis is most likely to benefit from carotid endarterectomy ?
- (1) Patients with 30% or less stenosis
 - (2) Patients with 30-49 % stenosis
 - (3) Patients with 50-69 % stenosis
 - (4) Patients with 70 or more stenosis without near complete occlusion
154. Which one of the following neuroprotective agents has been proven in RCTs to significantly improve clinical outcome after an acute stroke ?
- (1) Calcium channel blocker
 - (2) Citicholine
 - (3) Piracetam
 - (4) None of the above
155. All of the following may be found in lower motor neuron lesions except
- (1) Flaccid weakness
 - (2) Fasciculations
 - (3) Muscle wasting
 - (4) Brisk reflexes
156. 35 year old lady developed dysphagia while eating dinner at home and on arrival to hospital, her jaw was found hanging open. There is history of similar fatigable symptoms in past. The diagnosis is
- (1) MND
 - (2) Hysteria
 - (3) Myasthenia gravis
 - (4) Polyneuropathy

157. What is the most common neurologic presentation of Neurocysticercosis ?

- (1) Hearing loss
- (2) Seizure
- (3) Dementia
- (4) Blindness

158. Where are the DBS leads placed for essential tremors ?

- (1) Thalamus
- (2) Caudate nucleus
- (3) Globus pallidus
- (4) Hypothalamus

159. Muscle cramps occur in which of the following neurogenic disorder ?

- (1) Motor neurone disease
- (2) Radiculopathy
- (3) Polyneuropathy
- (4) All of the above

160. All are true for Lambert Eaton syndrome

- (1) normal deep tendon reflexes
- (2) presynaptic disorder of neuromuscular junction
- (3) proximal muscle of lower limb are most commonly involved
- (4) incremental responses on 20-50 Hz repeated nerve stimulation

161. Disorders associated with Myasthenia Gravis are

- (1) Thymoma, thymic hyperplasia
- (2) Hashimoto's thyroiditis, Grave's disease
- (3) SLE, Hypothyroidism
- (4) All of the above

162. Which drug is useful in anti MuSK antibody positive antibody ?

- (1) Tacrolimus
- (2) Rituximab
- (3) Cyclophosphamide
- (4) Azathioprine

163. In myopathy clinical findings include all except

- (1) Proximal limb weakness
- (2) Symmetric limb weakness
- (3) Decreased deep tendon reflexes
- (4) Preserved sensations

164. All are dural venous sinuses except

- (1) Sigmoid sinus
- (2) Frontal sinus
- (3) Transverse sinus
- (4) Straight sinus

165. Short neck, low hairline and block cervical vertebra are features of

- (1) Basilar impression
- (2) Klippel Feil anomaly
- (3) Atlantoaxial subluxation
- (4) Chiari malformation

166. Maxillary division of trigeminal nerve supplies

- (1) Large part of nasal cavity
- (2) Lower teeth
- (3) Part of soft palate
- (4) None

167. What is true about vagus nerve ?

- (1) Supplies anterior 2/3 of the tongue
- (2) Carries parasympathetic fibers
- (3) Has a spinal root
- (4) None

168. Spinal tap is contraindicated in patients with

- (1) acute purulent meningitis
- (2) acute viral meningitis
- (3) encephalitis
- (4) ICSOL



169. An 87-year-old man is hospitalized with a small left frontal cortical acute ischemic stroke. During his hospitalization he is found to have asymptomatic paroxysmal non-valvular atrial fibrillation. Prior to discharge you decide to initiate anticoagulation therapy with apixaban. His weight is 75 kg. His creatinine is 1.0. Which of the following is the most appropriate dose to initiate for secondary stroke prevention in the setting of non-valvular atrial fibrillation for this patient ?

- (1) 25 mg twice daily
- (2) 5 mg twice daily
- (3) 10 mg once daily
- (4) 10 mg PO twice daily × 7 days, then 5 mg twice daily

170. A 72-year-old man is brought to the hospital out of concern for an acute stroke. On examination his pupils are symmetric and reactive to light, extraocular movements are intact, there is no facial weakness, there is rightward deviation of the tongue, he is dysarthric, and there is a left hemiplegia (arm and leg). What "stroke syndrome" the following patient has ?

- (1) Left medial medullary syndrome
- (2) Left ventral medial pons syndrome
- (3) Right medial medullary syndrome
- (4) Right ventral medial pons syndrome

171. A 40-year-old woman with a history of hypertension, hyperlipidemia and migraine headache presents to the emergency department with sudden onset maximal intensity headache that started the evening prior to presentation. Vital signs are BP 172/102, HR 64, RR 18, 100% on room air. Her exam is notable for photosensitivity and mild neck stiffness, but is otherwise normal. Non-contrast head CT is unremarkable. What is the next best step in management ?

- (1) Magnetic resonance imaging of the brain
- (2) Administration of intravenous fluids and intravenous dihydroergotamine
- (3) Digital subtraction angiography
- (4) Lumbar puncture

172. An acute stroke involving the left occipital lobe and splenium of the corpus callosum could theoretically result in which of the following findings ?

- (1) Agraphia, acalculia, finger agnosia, and right-left confusion
- (2) Alexia with agraphia
- (3) Alexia without agraphia
- (4) Visual agnosia with confabulations

173. Which of the following risk factors is associated with an increased risk of detecting atrial fibrillation on prolonged cardiac monitoring following a cryptogenic stroke ?

- (1) First ever stroke/TIA with no radiographic evidence of prior stroke
- (2) Frequent premature atrial contractions on electrocardiogram
- (3) Higher CHADS2 score
- (4) Normal PR interval on electrocardiogram

174. Following resection of a tumor of the anterior portion of the left temporal lobe, what field defect would be expected ?

- (1) A homonymous right inferior quadrantanopia
- (2) A homonymous right superior quadrantanopia
- (3) A monocular right inferior quadrantanopia in the right eye only
- (4) A left afferent pupillary defect

175. Which of the following sensory nerves projects directly to the cerebral cortex without forming synaptic connections in the thalamus ?

- (1) Auditory
- (2) Dural sensory
- (3) Gustatory
- (4) Olfactory

176. Which of the following findings is most likely in a quadriparetic patient with Guillain-Barre syndrome (GBS) two days out from symptom onset ?

- (1) A slow tibial motor conduction velocity in the leg
- (2) Small sural sensory nerve action potential amplitude
- (3) Small distal tibial compound muscle action potential amplitude
- (4) Absent tibial F-waves

177. Which steroid should be given to patients with bacterial meningitis as adjunct therapy ?

- (1) Intravenous methyl prednisolone
- (2) Intravenous dexamethasone
- (3) Oral prednisolone
- (4) None of the above

178. Which of the following statements regarding single fiber electromyography (SFEMG) in the diagnosis of suspected autoimmune myasthenia gravis (MG) is true ?

- (1) It is the most sensitive diagnostic test
- (2) It is the most specific diagnostic test
- (3) It is the most sensitive and the most specific diagnostic test
- (4) It is neither a sensitive nor a specific diagnostic test

179. Which of the following is true regarding the position of nuclei in muscle fibers ?

- (1) Central nuclei are never normal
- (2) Internal nuclei are a finding specific to hereditary myopathies
- (3) Internal nuclei are only present in regenerating muscle fibers
- (4) Myonuclei are located at the periphery of mature, healthy muscle fibers

180. Binding of acetylcholine to the postsynaptic acetylcholine receptor at the neuromuscular junction directly results in which of the following ?

- (1) Opening of ligand-gated sodium channels on the postsynaptic membrane
- (2) Closure of voltage-gated potassium channels on the postsynaptic membrane
- (3) Closure of voltage-gated sodium channels the postsynaptic membrane
- (4) Closure of ligand-gated calcium channels on the postsynaptic membrane

रफ कार्य के लिए स्थान / SPACE FOR ROUGH WORK

