OPSC
Asst. Prof.
Previous Year Paper
(Neurology)
11 Sept, 2022

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

T. B. C. : AP(SS) – 6-21/22

Test Booklet Series

A

TEST BOOKLET

ASSISTANT PROFESSOR

(SUPER SPECIALITY)

(NEUROLOGY)

Sl. No. 1197

Time Allowed : 3 Hours

Maximum Marks : 200

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF THE SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C** OR **D**, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. **YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.**
5. This Test Booklet contains **200** items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses (answers) **ONLY** on the **separate Answer Sheet** provided by **using BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. **For each wrong answer, 0.25 marks shall be deducted from the marks awarded for correct answer.**
8. Before you proceed to mark (darken) in the Answer Sheet the responses (answers) to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the *Answer Sheet* issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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SEAL

1. A 80-year-old male with cough and fever for 3 days followed by abnormal behaviour for 1 day. Call was sent for neurologic assessment by attending physician. The attending neurologist made the diagnosis of Delirium. Which of the following is true regarding Delirium ?

(A) In elderly patients metabolic disturbances, infection, stroke and drugs are most common causes of delirium. Among the young patients drug abuse and alcohol withdrawal are common causes.

(B) Delirium and dementia seldom occur together. One should be cautious while diagnosing delirium in a demented patient.

(C) 80-90% patients experience delirium after open heart surgery or coronary bypass grafting.

(D) Fluctuating attentional deficits are red flag signs in delirium and should be investigated for underlying CNS infection.

2. A female patient aged 56 years presented to emergency with acute onset vertigo for last 5 hours. All of the following points on examination favour central vertigo rather than peripheral vertigo in this patient except :

(A) Direction changing nystagmus

(B) Vertical nystagmus

(C) Skew deviation

(D) Positive head thrust

3. A 55-year old female presents to your office with a complaint of weakness which came on gradually over the last several months. She has difficulty raising her arms and walking up stairs. Her examination demonstrates significant proximal arm and leg weakness with forearm flexors spared. Creatine kinase is 2500. She has a rash around her eyes and on her knuckles. Electromyography demonstrates small motor units with ample fibrillations and positive sharp waves seen in proximal muscles and paraspinal muscles. What pattern of abnormalities would be expected on this patient's muscle biopsy ?

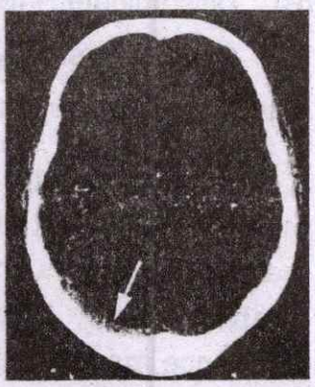
(A) Endomysial inflammatory infiltrate with CD8 T-cells

(B) Endomysial inflammatory infiltrates with cytoplasmic inclusions and rimmed vacuoles

(C) Perimysial infiltrate with perifascicular atrophy

(D) Nests of angular atrophic muscle fibers with fiber type grouping

4. A 25 year old female, 1 week postpartum presented to emergency with history of headache for 3 days. Her CT head image done in emergency is given below. What is true regarding this condition ?



(A) Patient can be discharged with antimigraine prophylaxis.

(B) IV tPA can be given for opening venous sinuses in such cases.

(C) IV heparin or SC LMWH followed by warfarin is recommended.

(D) Prophylactic antibiotics and anti-seizures prophylaxis is recommended in all patients.

5. Which of the following is not a hereditary disorder of myelin metabolism ?

(A) Alexander disease

(B) Adrenoleukodystrophy

(C) Marchiafava-Bignami syndrome

(D) Canavan disease

6. A 58-year-old man with a history of depression, hypertension, and asthma presents to clinic for tremor that began gradually. His tremor will often worsen with stress or anxiety, and will improve slightly with a glass of wine. His wife also notes an occasional head tremor, mostly at the end of the day. On examination, there is an action tremor bilaterally, occuring mostly in the distal extremities. Further, there is slight imbalance with tandem gait and mild hearing loss. There is no evidence of a resting component to his tremor, nor loss of dexterity or rigidity with activating manoeuvres. Which of the following is considered the best first-line agent to treat this patient ?

(A) Carbidopa / levodopa

(B) Clonazepam

(C) Propranolol

(D) Primidone

7. A 33-year-old female with a history of prior Deep Venous Thrombosis (DVT), ischemic stroke, and antiphospholipid antibody syndrome presents to the office for an evaluation. She has concerns about her medical history because she would like to become pregnant. Which of the following medications would be the safest for stroke prevention ?

(A) Warfarin

(B) Dabigatran

(C) Low molecular weight heparin

(D) Aspirin

8. Myelin increases the speed of an action potential by doing which of the following ?

(A) Reducing membrane capacitance and increasing membrane resistance

(B) Reducing membrane capacitance and reducing membrane resistance

(C) Increasing membrane capacitance and increasing membrane resistance

(D) Increasing membrane capacitance and reducing membrane resistance

9. A 60-year-old man notes increasingly severe pain on the left side of his midface for about 3 days, followed by the eruption of a vesicular lesion on the side of his nose. Which of the following may he be at increased risk of experiencing ?

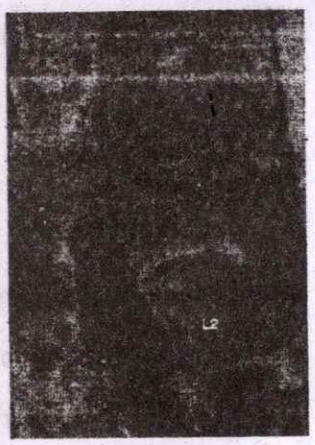
(A) Ocular complication

(B) Disseminated infection

(C) Cavernous sinus invasion

(D) Infectious meningitis

10. A 30-year-old man has a severe motorcycle accident while driving in the rain. He suffers an injury to his lumbar spine, the magnetic resonance image for which is shown here. Which of the following is not a likely component of his clinical examination upon arrival to the hospital ?



(A) Bladder and bowel dysfunction

(B) Hyperreflexia

(C) Flaccid paraplegia

(D) Saddle anesthesia

11. Which of the following medications has the highest risk of fetal malformation ?

(A) Carbamazepine

(B) Valproic acid

(C) Phenytoin

(D) Phenobarbital

12. Non motor features of PD include all except :

(A) Anosmia

(B) Sensory disturbances

(C) Postural instability

(D) Sleep disturbances

13. Which of the following represents the actions of the superior oblique muscle ?

(A) The primary action is eye intorsion and secondary action is depression.

(B) The primary action is eye depression and secondary action is extorsion.

(C) The primary action is eye elavation and secondary action is extorsion.

(D) The primary action is eye depression and secondary action is intorsion.

14. A 58-year-old man presents with a left-sided headache and neck pain that occurred during weight lifting. He was concerned because he felt like his left eye was "droopy".

One examination, you confirm that he has slight ptosis of the left eye. What diagnostic investigation would you like to do next in this patient ?

(A) NCCT head

(B) Transcranial doppler

(C) MRI brain with venography

(D) CT angiography neck vessels

15. A 61-year-old woman with a history of diabetes, hyperlipidemia and hypertension presents to the emergency department with double vision that she woke up with this morning. On examination, you find that she has a complete left oculomotor nerve palsy with intact pupillary function. Which of the following is the most likely cause of her examination findings ?

(A) Myasthenia gravis

(B) Brainstem infarction involving the midbrain

(C) Diabetic oculomotor nerve palsy

(D) Aneurysmal compression of the oculomotor nerve

16. Which of the following cranial nerves would most likely be affected in a patient presenting to your office with papilledema, headache and significant obstructive hydrocephalus ?

(A) Facial nerve

(B) Abducens nerve

(C) Trochlear nerve

(D) Trigeminal nerve

17. A 39-year-old woman presents to your office with left sided facial weakness involving the entire left half of the face. Taste is impaired and sound is excessively loud in her left ear. She denies problems with dry or runny eyes. A lesion in which of the following facial nerve locations could explain these symptoms ?

(A) The left facial nerve nucleus

(B) Between the geniculate ganglion and the stapedius nerve

(C) Between the chorda tympani and the stylomastoid foramen

(D) Between the stapedius nerve and the chorda tympani

18. Regarding the course of the trigeminal nerve from the cranium, which of the following is incorrect ?

(A) The maxillary division exits through the foramen rotundum.

(B) The ophthalmic division exits through the superior orbital fissure.

(C) The ophthalmic and maxillary divisions are the only trigeminal divisions that travel through the cavernous sinus.

(D) The three divisions of the trigeminal nerve arise from the sphenopalatine ganglion.

19. A 65-year-old patient with diabetes presents with a TIA. According to the ABCD2 score that assesses stroke risk in someone with TIA, which of the following is not used as predictor of occurrence of a stroke ?

(A) Diabetes

(B) Hypertension

(C) Duration of neurologic symptoms

(D) Hyperlipidemia

20. A 42-year-old woman with diabetes, hypertension and hyperlipidemia is brought to the emergency department for "unresponsiveness". An MRI was obtained and is shown below. Which of the following will most likely be encountered in this patient ?

(A) Quadriplegia with impaired horizontal gaze

(B) Vertical gaze impairment

(C) Hemisensory symptoms

(D) Hemiparesis

21. A 49-year-old woman presents with acute onset of hemiplegia, progressing to quadriplegia over the next 2 hours. On examination she seems awake; however, she is unable to verbalize and has increased oral secretions. She cannot move her eyes horizontally but is able to move them vertically and blink. Which of the following is the most likely cause ?

(A) Bilateral thalamic infarcts

(B) Infarct affecting the base of the pons bilaterally

(C) Lateral medullary infarct

(D) Top of the basilar occlusion

22. Which of the following is correct regarding thrombosis of the venous sinuses ?

(A) Seizures are more common in venous infarcts as compared to arterial infarcts.

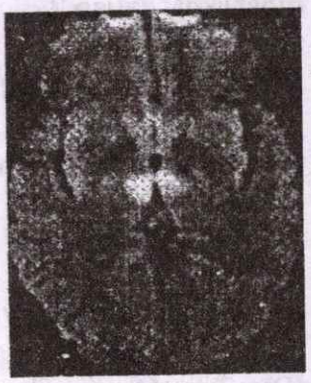
(B) Diplopia with sixth cranial nerve palsy is specific for cavernous sinus thrombosis.

(C) Headache is present in less than 50% of cases.

(D) Increased intracranial pressure is uncommon.

23. A 61-year-old woman presents with altered mental status.

There is restricted diffusion on the MRI which is shown in figure. Which of the following is the most likely diagnosis ?



(A) Bilateral anterior choroidal artery stroke

(B) Stroke from occlusion of the recurrent artery of Heubner

(C) Stroke from occlusion of the artery of Percheron

(D) Stroke from occlusion of the pericallosal artery

24. A 49-year-old woman with anxiety, depression, hypertension and diabetes presents to the emergency department with a sensory deficit affecting her right face, arm, trunk and leg, which started yesterday in the evening. The symptoms reached their peak on the morning of presentation. There are no motor deficits on examination. Which of the following is correct ?

(A) No further work up is needed and the patient can be discharged from the emergency department.

(B) Given the lack of motor deficits, her symptoms are most likely related to anxiety.

(C) The most likely location of the lesion is in the cortex.

(D) Small vessel disease is the most likely etiology.

25. A 51-year-old man with hypertension and diabetes presents with left-leg weakness associated with urinary incontinence. This patient was known to have a normal circle of Willis based on a previous MRA perfomed for other persons. Where is the most likely vascular occlusion ?

(A) Right ACA proximal to the origin of anterior communicating artery

(B) Right ACA distal to the origin of the anterior communicating artery

(C) Anterior communication artery

(D) Superior division of the right MCA

26. You are asked to see a 42-year-old right-handed woman with diabetes and dilated cardiomyopathy who developed acute "Confusion". On examination, she does not follow commands and is speaking fluently and saying multiple phrases that do not make sense. She seems to have a visual defect in the right hemifield. An MRI is obtained and shows evidence of a stroke. Where is the most likely vascular occlusion ?

(A) Trunk of the left MCA prior to the bifurcation

(B) Lenticulostriate branches of the left MCA

(C) Superior division of the left MCA

(D) Inferior division of the left MCA

27. What syndrome can you expect in a patient presenting with acute stroke and with the MRA shown in figure below ?

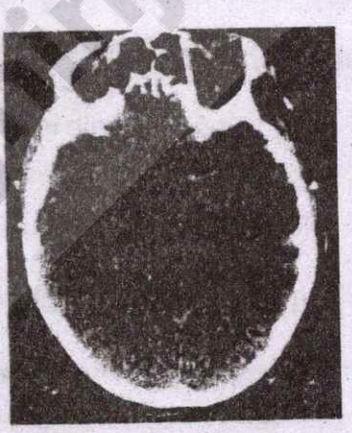
(A) Wallenberg's syndrome

(B) Parinaud's syndrome

(C) A left MCA syndrome

(D) Locked-in syndrome

28. A 52-year-old woman presents to the emergency department with acute onset of right hemiparesis. A CT scan is obtained and is shown in figure. Which of the following is correct ?



(A) The patient has an MCA occlusion.

(B) This patient is at risk of vasospasm.

(C) The cause of the symptoms is a lacunar stroke.

(D) The patient may need suboccipital craniectomy for decompression

29. A 49-year-old woman presents with acute onset of left hemiplegia and right side facial weakness, involving the upper and lower facial movements. Which of the following is the most likely diagnosis ?

(A) Right pontine infarct

(B) Left pontine infarct

(C) Right midbrain infarct

(D) Left midbrain infarct

30. A 59-year-old man presents with sudden onset of right hemiparesis and aphasia. The National Institute of Health Stroke Scale (NIHSS) score is 18. A brain CT scan is obtained and you calculate the Alberta Stroke Program Early CT Score (ASPECTS). Which of the following is correct ?

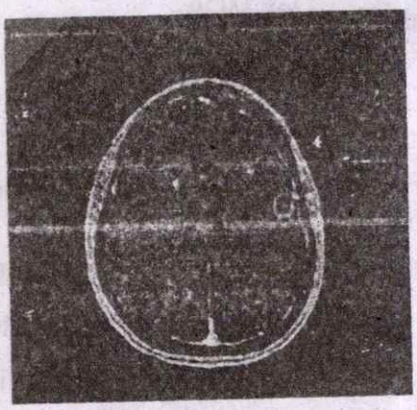
(A) A score of 3 supports the use of intravenous tissue plasminogen activator (tPA).

(B) Three CT scan slice cuts are required to calculate this score.

(C) The maximum score is 20.

(D) A score of 7 or less is associated with increased dependence and death.

31. A 62-year-old patient is found to have a brain mass. An image of his MRI is shown in figure below. Which of the following is true regarding the cerebral edema in this condition ?



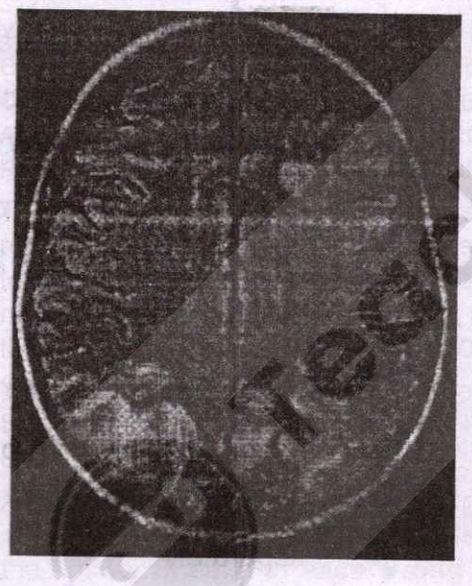
(A) It is vasogenic edema.

(B) It is caused by disruption of the CSF flow.

(C) It occurs from Na+ K+ ATPase pump failure.

(D) It is cytotoxic edema.

32. A 45-year-old patient with history of hypertension and end-stage renal disease on hemodialysis presents with altered mental status and a blood pressure of 210/118 mm Hg. While in the emergency room he has a generalized tonic-clonic seizure and requires endotracheal intubation. He is then admitted to the neurocritical care unit. His brain MRI is shown below. Which of the following is the most likely diagnosis ?



(A) Embolic strokes

(B) Posterior reversible encephalopathy syndrome

(C) Acute disseminated encephalomyelitis

(D) Intracerebral hemorrhage

33. Corticosteroids are used for the treatment of intracranial hypertension associated with which of the following etiologies ?

(A) Traumatic brain injury

(B) Intracerebral hemorrhage

(C) Acute obstructive hydrocephalus

(D) Brain tumors

34. A 30-year-old man presents with ascending paralysis occurring 2 weeks after a diarrheal illness. On examination, he has weakness of all four limbs, more distally than proximally, and deep tendon reflexes are absent. Analysis of CSF shows 4 WBC/microL (normal up to 5 lymphocytes / microL) and a protein level of 110 mg/dL(normal up to 45 mg/dL). Regarding this condition, which of the following is incorrect ?

(A) Corticosteroids not indicated

(B) Vital capacity should be measured frequently.

(C) Hypercapnia on arterial blood gas is the most sensitive indicator of the need for intubation.

(D) Blood pressure and heart rate monitoring is necessary in these patients.

35. A 54-year-old woman with myasthenia gravis gets admitted to the hospital with cough, diarrhea and generalized weakness. On examination, her heart rate is 56, blood pressure is 120/68 mm Hg, she is alert and oriented, but looks anxious and sweaty, her pupils are small and sluggish, extraocular movements are normal, there is generalized weakness and she has muscle fasciculations. Which of the following is the most likely diagnosis ?

(A) Myasthenic crisis

(B) Botulism

(C) Cholinergic crisis

(D) Adrenergic crisis

36. Which of the following findings will be seen in a comatose patient with brainstem lesion and pinpoint pupils ?

(A) No response to pain on motor examination and ataxic breathing

(B) Apneustic breathing pattern

(C) Hyperventilation pattern with decorticate posture

(D) Cheyne-Stokes breathing

37. Largest portion of rhombencephalon is :

(A) Thalamus

(B) Cerebellum

(C) Hippocampus

(D) Pons

38. Which of the following is true about Broca's aphasia ?

(A) Broca's aphasia is due to a lesion involving posterior perisylvian speech areas.

(B) Non-essential words are frequently included in speech.

(C) Written language is preserved and patient can write and communicate himself / herself.

(D) Patients are aware of their deficit and frustrated by their difficulty speaking.

39. Foster-Kennedy syndrome :

(A) First described by two clinicians Foster and Kennedy separately

(B) Most common cause for anosmia in young females

(C) Consists of anosmia, unilateral optic atrophy and contralateral papilloedema

(D) Caused by trauma or iatrogenic injury to optic nerve

40. Horner's syndrome :

(A) Classical traid of mydriasis, hyperhidrosis and facial flushing.

(B) Interruption of pathways between hypothalamus and spinal cord causes third order Horner's syndrome.

(C) The lower lid is frequently elevated 1-2 mm because of lack of sympathetic input.

(D) Cocaine is used to differentiate first and second order neurons.

41. Unilateral paralysis of all or most of cranial nerves is called :

(A) Collet-Sicard syndrome

(B) Foix-Jefferson syndrome

(C) Tapia's syndrome

(D) Garcin's syndrome

42. Sural nerve is a branch of

(A) Femoral nerve

(B) Peroneal nerve

(C) Both femoral and peroneal nerves give a branch to form sural nerve

(D) Both tibial and peroneal nerves give a branch to form sural nerve

43. Pronator drift :

(A) Occurs due to injury to pronator teres and demnstrates irreversible damage to muscle

(B) Pronation, elbow flexion and downward drift can occur while demonstrating for pronator drift.

(C) Specific for syringomyelia or cervical myelopathy.

(D) Pronator drift is seen when Corticospinal and posterior column lesions when occur together.

44. In an electroencephalogram (EEG), increasing the high-pass filter will result in which of the following ?

(A) Reducing Electromyography (EMG) artifact

(B) Reduce sweat artifact

(C) Reduce amplitude of all waveforms

(D) Increase amplitude of all waveforms

45. Decerebrate rigidity :

(A) Vestibular nuclei enhance extensor tone and integrity of vestibular nuclei is necessary for decerebrate rigidity.

(B) Presence of decerebrate rigidity has distinctively good prognosis.

(C) Methanol poisoning is the most common cause of decerebrate rigidity.

(D) Decorticate rigidity is same as decerebrate rigidity.

46. All of the following signifies meningeal inflammation except :

(A) Brudzinski sign

(B) Schultze's sign

(C) Guilland sign

(D) Edelman great toe phenomenon

47. Rapidly progressive dementia :

(A) Defined as dementia onset within previous 1 mouth

(B) Most common cause is neurocysticercosis in India

(C) Small cell lung cancer is commonest cause of rapidly progressive dementia worldwide

(D) CJD, chronic meningitis and subdural hematoma can present as rapidly progressive dementia

48. Cause of Dropped Head syndrome are all except :

(A) Myasthenia gravis

(B) Amyotrophic lateral sclerosis

(C) Dysferlinopathy

(D) Mitochondrial myopathy

49. All of the following are referred as Ramsay Hunt syndrome except :

(A) Juvenile Parkinson's disease

(B) Deep palmar branch ulnar neuropathy

(C) Vesicles in the external ear canal associated with facial nerve palsy

(D) Horner's with seventh cranial nerve palsy

50. True about clinical examination of myasthenia gravis :

(A) Peek sign if present excludes myasthenia gravis

(B) Manual elevation of more ptotic lid causes worsening of ptosis of contralateral eye

(C) Marcus gunn pupil can occur in myasthenia

(D) Bow tie nystagmus when seen in myasthenia indicates poor prognosis

51. A patient can't identify a comb on seeing it but he can match two combs and also identify the comb when it is held in hands, this is called :

(A) Visual agnosia

(B) Optic ataxia

(C) Oculomotor apraxia

(D) Asimultagnosia

52. The normal optic fundus, true is :

(A) If venous pulsations seen it is suggestive of papilledema.

(B) Nasal edge of the disc may be less clearly demarcated in normal persons.

(C) Three central retinal arteries supply the optic nerve head.

(D) Drusen present at optic nerve head suggests onset of optic neuritis.

53. Which of the following is antigen target of NMO antibodies ?

(A) Desmosome

(B) Gramicidin

(C) Aquaporin 4

(D) ATPase

54. Corticobulbar and corticospinal pathways, false is :

(A) VII CN, fibres to lower face contralaterally innervated

(B) XI nerve : UMN fibres supply sternocleidomastoid on its own side and uppar trapezius on contralateral side

(C) Arm fibres decussate above than leg fibres in medulla

(D) Corticospinal tracts terminate in cervical spinal cord at C5 level

55. Contraindications to lumbar puncture are all except :

(A) Local infection

(B) Suspected ICSOL and raised intracranial pressure

(C) Bacterial meningitis

(D) Local spinal deformity

56. Which of the following is true ?

(A) Lead poisoning affect anterior interosseous nerve and causes wrist drop.

(B) Tardy ulnar nerve palsy can falsely produce weakness in radial nerve innervated muscles

(C) Carpal tunnel syndrome can present as pure motor as well as pure sensory syndrome.

(D) Axillary nerve arises from lateral division of medial cord or brachial plexus.

57. Facioscapulohumeral dystrophy, false is :

(A) Pseudohypertrophy is common and diagnostic feature

(B) Normal lifespan and intelligence

(C) Males, females equally affected autosomal dominant

(D) Occasionally autosomal recessive

58. Perinaud syndrome consists of paralysis of upward gaze and accommodation; it is caused due to lesion at :

(A) Base of pons

(B) Dorsal midbrain

(C) Lateral tegmentum of medulla

(D) Base of midbrain

59. Following are the metabolic diseases which can increase the risk of stroke except :

(A) Homocystinuria

(B) Fabry's disease

(C) Sulphite oxidase deficiency

(D) Lafora body disease

60. True about acute ischaemic stroke :

(A) Thrombectomy can be done upto 48 hours in selected patients.

(B) Can be thrombolysed only within 1 hour window period.

(C) Alteplase is given 10 mg instramuscular followed by IV infusion over 1 hour.

(D) NCCT head is enough to decide regarding thrombolysis in emergency.

61. Osmotic demyelination syndrome :

(A) Occurs when hypocalcemia is corrected rapidly.

(B) MRI brain shows a typical appearance in pons.

(C) IVIG is treatment of choice.

(D) Females affected more than males.

62. Artery of Adamkiewicz :

(A) Another name of posterior spinal artery

(B) Branch of renal artery supplying spinal cord

(C) Radiculomedullary artery at T10-L1 level

(D) Branch of vertebral artery at its origin

63. Which of the following is not a disorder of neuromuscular junction ?

(A) Myasthenia gravis

(B) Neurotoxic snake bite

(C) Lambert-Eaton myasthenic syndrome

(D) Kearns-Sayre syndrome

64. A 30 year old female presented with worst headache of her life, what will not be included in her management ?

(A) NCCT head

(B) MRI Brain

(C) Give analgesics, IV fluids and wait for any recurrence or worsening sensorium

(D) Lumbar puncture

65. Subacute combined degeneration of spinal cord :

(A) Caused by deficiency of iron and folic acid.

(B) Copper deficiency can cause SACD like illness.

(C) Vitamin E supplementation also needed for proper absorption of B12.

(D) Associated visual impairment if present rules out B12 deficiency

66. Which of the following is not a neuroectodermoses ?

(A) Mobius syndrome

(B) Tuberous sclerosis

(C) Ataxia telengiectasia

(D) Progressive facial hemiatrophy

67. A single motor unit comprises of all except :

(A) Anterior horn cell

(B) Alpha motor neuron

(C) Neuromuscular junction

(D) Gamma motor neuron

68. Acetylcholine is stored in :

(A) Neuromuscular junction

(B) Axon terminal

(C) Synaptic vesicle

(D) Voltage gated calcium channel

69. All of the following diseases involves pathology of neuromuscular junction except :

(A) Myasthenia gravis

(B) Lambert-Eaton myasthenic syndrome

(C) Organophosphorus poisoning

(D) Amyotrophic lateral sclerosis

70. Regarding cerebellar anatomy, which of the following statements is correct ?

(A) Purkinje cells are excitatory ; their neurotransmitter is glutamate.

(B) The inferior cerebellar peduncle carries the majority of cerebellar efferents.

(C) Cerebellar hemisphere lesions lead to predominantly ipsilateral clinical signs.

(D) Climbing fibers originating from the medullary pyramids constitute a large component of cerebellar afferents.

71. Clinical presentations of disorders affecting NMJ are :

(A) Pure motor symptoms, however paresthesias can be present

(B) Involuntary muscles are severely affected

(C) Fluctuating weakness

(D) Distal muscle involvement is classifically seen

72. Diurnal variation is seen classically in :

(A) Amyotrophic lateral sclerosis

(B) Mononeuritis multiplex

(C) Polymyositis

(D) Ocular myasthenia gravis

73. True about MuSK antibody positive myasthenia :

(A) Usually females < 40 yrs

(B) Bulbar symptoms not present

(C) Usually in males > 60 yrs

(D) Sensitive to treatment

74. Dalfampridine is a medication that :

(A) Reduces pseudobulbar effect in patients with neurologic injury.

(B) Reduces relapses in patients with relapsing-remitting multiple sclerosis.

(C) Is FDA approved to improve visual contrast senstitivity in multiple sclerosis.

(D) Is FDA approved to improve the speed of walking in multiple sclerosis.

75. All of the following tests are used in the diagnosis of Myasthenia gravis except ?

(A) Ice pack test

(B) Rapid nerve stimulation test

(C) Tensilon test

(D) Routine electromyography

76. All of the following statements are true about ocular myasthenia except :
(A) Progression to generalized myasthenia occurs in 50% cases.
(B) Generalization occurs in highest frequency in first 2 yrs in about 80%.
(C) Corticosteroids must be started in all cases as early as possible.
(D) 10% of patients without any treatment go to remission.

77. All are primary headache except ?
(A) Migraine without aura
(B) Vestibular migraine
(C) Medication overuse headache
(D) Tension type headache

78. Pain sensitive structures are all except :
(A) Proximal large arteries
(B) Cerebral venous sinuses
(C) III cranial nerve
(D) Corticospinal tracts

79. All are triggers for migraine except :
(A) Smell of perfumes
(B) Red wine
(C) Sleep
(D) Fasting

80. In the 10-20 system, T3-T4 electrodes represent which region ?
(A) Anterior temporal
(B) Mid temporal
(C) Posterior temporal
(D) Parieto-temporal

81. The diagnostic criteria for migraine includes all of the following except :
(A) Headache lasting 4-72 houurs
(B) Band like pain
(C) Unilateral headache
(D) Photophobia or phonophobia

82. A 35-year-old woman presents with an excruciating headache 3 days after delivering her first baby. Her only complication was mild postpartum vaginal hemorrhage, which was easily controlled but documented one episode of hypotension at that time that responded to fluids. She reports inability to breastfeed since delivery and complains of polydipsia and polyuria. Her brain imaging is given below. Which of the following is the correct diagnosis ?

(A) Cerebral venous sinus thrombosis
(B) Postpartum angiopathy
(C) Sheehan syndrome
(D) Postepidural spinal headache

83. If vertigo and a right beating nystagmus are observed 30 seconds after performing a Dix-Hallpike maneuver with the right ear towards the ground, what is the most likely localization of the patient's underlying problem ?

(A) Left posterior semicircular canal

(B) Left lateral semicircular canal

(C) Right posterior semicircular canal

(D) Right lateral semicircular canal

84. All are true about cluster headache except :

(A) Very severe intensity, unilateral pain

(B) Lasting 15-180 minutes

(C) Photophobia or phonophobia

(D) Ipsilateral eyelid edema, facial swelling

85. Which of the following neurotransmitters is considered neurotoxic at excessive concentrations ?

(A) Acetylcholine

(B) Glutamate

(C) Dopamine

(D) Serotonin

86. All of the following interventions have been proven to prolong survival in Amyotrophic Lateral Sclerosis (ALS) except :

(A) Riluzole

(B) Treatment in a multidisciplinary clinic

(C) Bilevel positive airway pressure when forced vital capacity is below 50%

(D) Dextromethorphan and quinidine

87. A 20-year-old man is noted to be febrile and have a depressed level of consciousness. His roommate brings him to the emergency room in his car and while en route, he has a generalized tonic-clonic seizure. By the time he reaches the emergency room, he has been seizing for 35 minutes. In addition to ventilatory and hemodynamic support, the initial treatment of this patient should have the following sequence :

(A) Lorazepam → Levitiracetam → Pentobarbital → Phenytoin

(B) Fosphenytoin → Lorazepam → Phenobarbital → Repeat Fosphenytoin

(C) Lorazepam → Fosphenytoin → Propofol → Pentobarbital

(D) Propofol → Fosphenytoin → Pentobarbital → Lorazepam

88. Which of the following is the best predictor of outcome from cardiac arrest between days 1 and 3 after the event ?

(A) Bilateral absence of the N20 response on somatosensory evoked potentials with median nerve stimulation

(B) Creatine kinase BB isoenzyme

(C) Duration of cardiopulmonary resuscitation

(D) Absent ocular movements within the first 24 hours

89. A 71-year-old man suffers a massive intracranial hemorrhage and no brainstem reflexes are present on examination. The following is not consistent with a diagnosis of brain death :

(A) No respiratory movements on apnea test with a core body temperature of 31°C

(B) Absent brainstem reflexes

(C) Cerebral angiography showing absent filling of contrast in the circle of Willis

(D) No cerebral electrical activity on an EEG recorded for 30 minutes

90. Which of the following correlates with decorticate rigidity ?

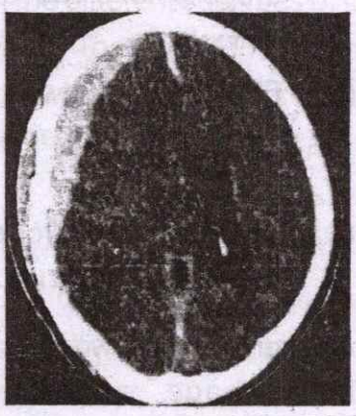
(A) It is always associated with pinpoint pupils

(B) Lesion below the vestibular nucleus with facilitation of the rubrospinal tract

(C) Lesion below the level of the red nucleus with facilitation of the vestibulospinal tract

(D) Disinhibition of the red nucleus with facilitation of the rubrospinal tracts

91. What types of herniation is shown in the CT scan shown below ?



(A) Uncal herniation

(B) Subfalcine herniation

(C) Tonsillar herniation

(D) Central transtentorial herniation

92. Which of the following is incorrect regarding ICP, intracranial volume and cerebral blood flow ?

(A) Hypercapnia produces an increase in ICP.

(B) Mean arterial pressure and ICP determine the cerebral perfusion pressure.

(C) The relationship between intracranial volume and ICP is linear.

(D) Vasodilatation of intracranial vessels increase the ICP.

93. Which of the following is correct regarding status epilepticus in adults ?

(A) Continuous seizures lead to pharmacoresistance and neuronal damage.

(B) Noncompliance with antiepileptic drugs is not a cause of status epilepticus.

(C) Febrile seizures is a major cause of status epilepticus in adults.

(D) Status epilepticus is not associated with mortality.

94. A patient presents with subarachnoid hemorrhage and undergoes endovascular coiling of the ruptured aneurysm. He has a complicated course in the ICU, remaining intubated on mechanical ventilation and with high intracranial pressures. On day 7 his neurologic examination deteriorates and an angiogram is obtained and cause was ascertained. Which is the most likely diagnosis ?

(A) Embolic occlusion of the right MCA

(B) Contrast extravasation

(C) Intracranial carotid artery dissection

(D) Vasospasm

95. A 34-year-old overweight woman presents with a severe migraine that began 2 days ago but is now gone. She has not identified any triggers since these headaches began 2 years ago, has tried to avoid stress, and has kept a headache diary prior to her visit with you today. She averages about six migraines per month, each lasting 1 to 2 days. What is the best choice of treatment at this time, assuming there are no contraindications ?

(A) Prescribe sumatriptan and a non-steroidal anti-inflammatory drug (NSAID) to take immediately today.

(B) Prescribe sumatriptan to use as needed, as well as a preventative agent prescribe a preventative agent.

(C) Give her a Dihydroergotamine (DHE) infusion today in the office to prevent recurrence.

(D) Follow her over the next couple of months before prescribing anything.

96. The triptan medications are effective in treatment of migraine because they work at which of the following subreceptors ?

(A) Agonism at 5HT-2B, 5HT-2D

(B) Antagonism at 5HT-1B, 5HT-1D

(C) Agonism at 5HT-1B, 5HT-2D

(D) Agonism at 5HT-1B, 5HT-1D

97. The autonomic features of lacrimation, rhinorrhea and nasal congestion seen in the trigeminal autonomic cephalalgias are due to the activation of which nucleus ?

(A) Parasympathetic outflow from the Superior Salivatory Nucleus (SSN)

(B) Sympathetic outflow from the SSN

(C) Parasympathetic outflow from the nucleus solitarius

(D) Parasympathetic outflow from the Trigeminal Nucleus Caudalis (TNC)

98. Which of the following headache types is not currently considered a "trigeminal autonomic cephalalgia" ?

(A) Paroxysmal hemicrania

(B) Trigeminal neuralgia

(C) Cluster headache

(D) Short-lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT)

99. Which of the following headache disorders is not a primary headache disorder but is a secondary headache disorder ?

(A) Hemicrania continua

(B) Headache attributed to Idiopathic Intracranial Hypertension (IIH)

(C) New daily persistent headache

(D) Hypnic headache

100. What is the most prevalent primary headache disorder in the general population ?

(A) Migraine with aura

(B) Migraine without aura

(C) Tension-type headache

(D) Cluster headache

101. The prototype of pure upper motor neuron type of Motor neuron disease is :

(A) Primary lateral sclerosis

(B) Amyotrophic lateral sclerosis

(C) Spinomuscular atrophy

(D) MMNCB

102. Fasciculations are seen in all of the following except :

(A) ALS

(B) SMA

(C) Succinyl choline overdose

(D) Hereditary spastic paraparesis

103. Which of the following is a marker of UMN involvement ?

(A) Wasting

(B) Hyperreflexia

(C) Weakness

(D) Fibrillation potential

104. Most common cause of death in patients of motor neuron disease is :

(A) Respiratory failure

(B) Cardiac arrest

(C) Seizure

(D) Coma

105. Most common vaccinations associated with ADEM are :

(A) Measles, Mumps, Rubella

(B) Japanese B encephalitis

(C) Rabies, Hepatitis B, Influenza

(D) Diptheria / Pertussis / Tetanus

106. Which of the following AEDs is associated with weight loss ?

(A) Pregabalin

(B) Gabapentin

(C) Topiramate

(D) Carbamazepine

107. A 12-year-old boy presents to your office with a history of progressively worsening frequency and severity of daily myoclonic seizures. His mitochondrial testing has so far been negative, although you suspect a Progressive Myoclonic Epilepsy (PME) of some type. What would be the best antiepileptic medication to try first, given there are no contraindications ?

(A) Carbamazepine

(B) Phenytoin

(C) Oxcarbazepine

(D) Valproic acid

108. Which of the following choices is a characteristic associated with fosphenytoin as compared with phenytoin ?

(A) Faster rate of IV administration is possible

(B) Does not cause dizziness or nystagmus

(C) More cardiovascular side effects

(D) Achieves therapeutic plasma concentrations faster

109. Which of the following is the least likely to be associated with worsening of myoclonic seizures ?

(A) Topiramate

(B) Carbamazepine

(C) Lamotrigine

(D) Pregabalin

110. Which of the following electro-encephalographic findings would be associated with the highest incidence of seizures ?

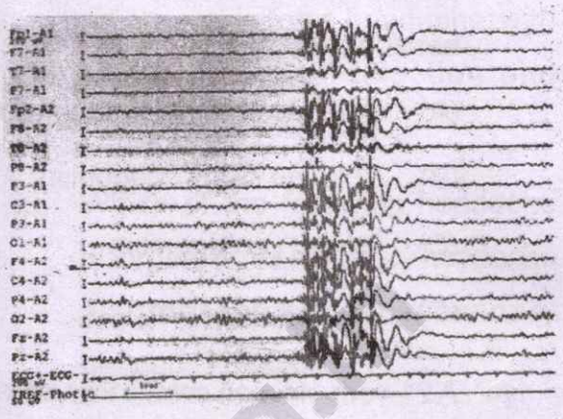
(A) Small sharp spikes

(B) 6-Hz spike and wave

(C) Wicket spikes

(D) 3-Hz spike and wave

111. A 12-year-old boy with complaints of early morning falls, clumsiness and dropping objects presents with a Generalized Tonic-Clonic (GTC) seizure. His EEG is shown in figure below. Which of the following is the most likely diagnosis ?



(A) Juvenile myoclonic epilepsy

(B) Absence epilepsy

(C) Myoclonic epilepsy

(D) Benign childhood epilepsy with centrotemporal spikes (benign rolandic epilepsy of childhood)

112. Which of the following is not a common long-term side effect of chronic phenytoin use ?

(A) Hirsutism

(B) Osteoporosis

(C) Gingival hyperplasia

(D) Cortical atrophy

113. Which of the following is a mechanism of action of benzodiazepines ?

(A) Chloride channel antagonism

(B) Chloride channel agonism

(C) GABAA antagonism

(D) GABAA agonism

114. A 21-year-old man comes to the clinic because he has been having spells in which he suddenly stops what he was previously doing and stares for about a minute, sometimes picking at his nose and his shirt. He cannot recall what happens during the spell itself. He says, however, that he knows when a spell is going to happen because he experiences a warm sensation in his epigastric region, followed by a sensation of fear and a rapid recollection of episodes of past life experiences along with palpitations. He may have postictal confusion. His EEG shows focal spikes. Which of the following best describes the type of seizure this patient has ?

(A) Temporal lobe seizures

(B) Frontal lobe seizures

(C) Absence seizures

(D) Occipital lobe seizures

115. A 32-year-old woman has seizures in which her left arm becomes dystonic, while she exhibits automatisms with the right arm. Where is the most likely location of the seizure focus ?

(A) Right temporal lobe

(B) Left temporal lobe

(C) Left frontal lobe

(D) Hypothalamus

116. Regarding the anatomy of the basal ganglia, which of the following statements is correct ?

(A) The striatum consists of the caudate and globus pallidus.

(B) The lenticular nucleus consists of the putamen and caudate.

(C) The major outflow of the basal ganglia arises in the globus pallidus.

(D) The globus palidus projects to the subthalamic nucleus which, in turn, projects to multiple cortical areas.

117. Which of the following statements is correct regarding the direct and indirect circuits of the basal ganglia ?

(A) Hyperkinetic movement disorders result from increased activity in the indirect pathway.

(B) Hypokinetic movement disorders result from increased activity in the direct pathway.

(C) The net effect of normal activity in the indirect pathway is to increase movement.

(D) Hyperkinetic movement disorders result from reduced activity in the indirect pathway

118. Regarding the clinical features of idiopathic Parkinson's Disease (PD), which of the following statements is correct ?

(A) The tremor is typically a fast, predominantly kinetic tremor.

(B) Postural tremor is exceedingly rare and should suggest an alternate diagnosis.

(C) Frequent falling is not a typical feature of early PD but rather occurs later on in the disease course.

(D) Loss of postural reflexes is common and seen clinically early on in the disease course.

119. Which of the following Parkinson's disease medication – mechanism of action pairs is incorrect ?

(A) Carbidopa – Dopa-decarboxylase inhibitor

(B) Ropinirole – Agonist at D2 and D3 receptor

(C) Rasagiline – Monoamine oxidase type B inhibitor

(D) Entacapone – Nonspecific monoamine oxidase inhibitor

120. Which of the following statements is correct regarding chorea ?

(A) Sydenham's disease is best treated with antistreptococcal agents.

(B) Chorea following streptococcal infection with rheumatic fever (Sydenham's disease) always occurs within 2 weeks of the infection.

(C) Occurrence of chorea during pregnancy (chorea gravidarum) usually implies a hormonal aetiology to the chorea.

(D) Sydenham's disease is best treated with Botulinum toxin agents.

121. All are true about myasthenia gravis except :

(A) Most common disorder affecting NMJ

(B) Immune mediated disorder

(C) Antibodies against muscle specific kinase

(D) Treatment with steroids is not needed unless patient is in crisis

122. Which of the following statements is correct regarding the spinocerebellar ataxias ?

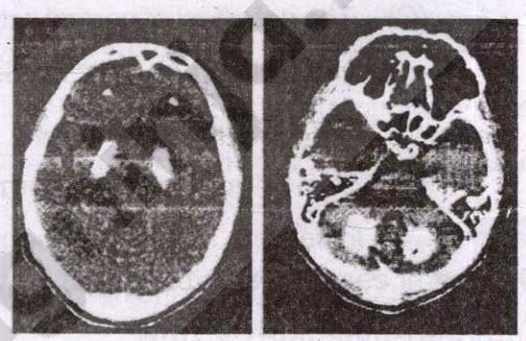
(A) They typically present in the seventh to eighth decades of life.

(B) The most common forms are X-linked.

(C) Cerebellar atrophy is usually restricted to the vermis without involvement of other structures.

(D) They are genetically heterogeneous group of disorders but most are due to trinucleotide repeat expansions.

123. A 72-year-old man is brought to the clinic by his family for slowness of movement of several years duration. On examination, he has moderate dysarthria, bilateral rigidity and bradykinesia. Tremor is absent. An image from his brain CT scan is shown below. Which of the following statements regarding this patient's disorder is incorrect ?



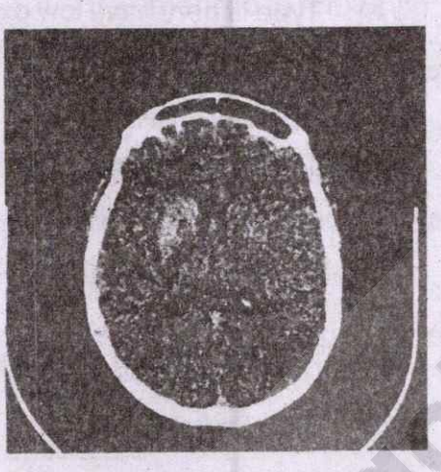
(A) He has bilateral basal ganglia and cerebellar hemorrhages leading to his Parkinsonism

(B) The genetic disorders that can lead to these CT scan findings may be autosomal dominant or recessive.

(C) Hyperparathyroidism can lead to this finding.

(D) Parkinsonism, cerebellar signs, and dysarthria are the most common clinical findings seen.

124. A 52-year-old woman with diabetes presented with involuntary movements of her left arm and leg. Examination shows hemichorea with some ballistic movements involving the left arm and leg. Serum glucose is 420 mg/dL. An image from her MRI is shown in figure. What is the most likely etiology of her presentation and imaging findings ?



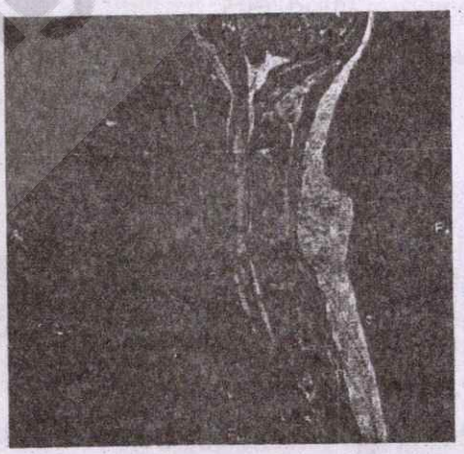
(A) Acute infarct

(B) Acute hemorrhage

(C) Nonketotic hyperglycemia

(D) Sydenham's chorea

125. A 45-year-old man developed a nearly complete loss of vision in the left eye 2 months back, which has not resolved despite intravenous steroids and a tapering course of oral steroids. Two weeks ago, he developed visual loss in the right eye, which has persisted. He has burning paresthesias of both feet and some urinary urgency, both of which have been present for 1 year. His MRI of the cervical cord is given below. His spinal fluid shows 50 WBCs/mm^3, with 45% neutrophils and 55% lymphocytes, protein of 75 mg/dL and negative oligoclonal banding. CSF VDRL is negative, HIV negative, HTLV I and II are negative and Vitamin B_{12} level is normal. ANA is moderately elevated at a titer of 1:128 :



Which of the following is the most likely diagnosis ?

(A) Lupus myelitis

(B) Fulminant multiple sclerosis

(C) Neuromyelitis optica

(D) Subacute combined degeneration

126. Seronegative Myasthenia gravis :

(A) MUSK / AChR antibody negative

(B) AchR antibody negative but MUSK positive

(C) Antibodies negative in serum but present in CSF

(D) Treatment not needed

127. Regarding needle EMG, which of the following is incorrect ?

(A) Insertional activity is increased in denervated muscles.

(B) Fibrillation and fasciculation potentials are examples of spontaneous activity.

(C) Short-duration Motor Unit Potentials (MUPs) are seen more frequently in myopathic processes.

(D) Large polyphasic MUPs are seen in acute neuropathic lesions.

128. A patient with lung cancer is being evaluated for Lambert-Eaton myasthenic Syndrome (LEMS). Which of the following is correct ?

(A) Needle EMG is usually abnormal in LEMS.

(B) Rapid repetitive stimulation (20 to 50 Hz) results in an incremental response of the CMAP amplitudes.

(C) Increased CMAP amplitude at rest is commonly seen in LEMS.

(D) Slow repetitive stimulation (2 to 3 Hz) results in an incremental response of the CMAP amplitudes.

129. Regarding the types of skeletal muscle fibers, which of the following is correct ?

(A) Type I fibers have low oxidative capacity and fast ATPase activity.

(B) Type IIa fibers are fast with large glycolytic capacity.

(C) Type I fibers are large in diameter.

(D) Type IIb fibers are fast with high oxidative capacity.

130. Regarding innervation of the upper extremity, which of the following is correct ?

(A) The brachial plexus is formed from the posterior rami of the C2 to T1 nerve roots.

(B) The lower (inferior) trunk is formed from the C3 and C4 roots.

(C) The dorsal scapular nerve is the only nerve that branches directly off the nerve roots.

(D) The middle trunk is formed from the C7 cord.

131. Which of the following is incorrect regarding electrophysiologic studies of the peripheral nervous system ?

(A) SNAP amplitude is a measure of the number of axons that conduct between the stimulation and recording sites.

(B) Sensory distal latency is the time it takes for the action potential to travel between the nerve stimulation site and the recording site.

(C) Axon loss lesions are invariably associated with reduced conduction velocities.

(D) CMAP amplitude depends on the status of the motor axons, neuromuscular junctions and muscle fibers.

132. Patient is referred for an EMG/NCS for a possible diagnosis of a neuromuscular junction disorder. Which of the following is correct ?

(A) CMAP increment after high-frequency repetitive stimulation is a feature of Myasthenia Gravis (MG)

(B) CMAP increment after brief exercise is a feature of MG.

(C) A decrement in the CMAP during 2 to 3 Hz repetitive stimulation is consistent with MG.

(D) Abnormal jitter on single-fiber EMG is very specific finding for the diagnosis of MG.

133. All of the following are characteristics of a persistent vegetative state except :

(A) No sustained voluntary responses to stimuli

(B) No evidence of language comprehension

(C) Preserved bowel and bladder continence

(D) Preserved cranial nerve reflexes

134. Regarding the various manifestations of the different subtypes of Charcot-Marie-Tooth (CMT), which of the following statements is incorrect ?

(A) Hammertoes and spine deformities are more prominent in CMT1 than CMT2.

(B) CMT2 typically has a later age of onset as compared to CMT1.

(C) CMT3, or Dejerine-Sottas syndrome, presents in infancy and typically leads to disabling weakness.

(D) Respiration muscle involvement is characteristics of the most common type of CMT.

135. A 62-year-old man presents with sensory ataxia, painful paresthesias and sensory deficits in his hands and feet. He is found to have a lung mass and biopsy shows a small cell neoplasm. Which of the following antibodies will most likely be positive ?

(A) Anti-voltage-gated calcium channel

(B) Anti-Hu

(C) Anti-Yo

(D) Anti-MAG

136. A 50-year-female presented difficulty in dressing for 6 months, she will wear clothes inside out and will wear clothes on one side of body sometimes. Her symptoms usually localizes to :

(A) Right Parietal Lobe

(B) Left Parietal Lobe

(C) Right Frontal Lobe

(D) Left Temporal Lobe

137. Which of the following is FALSE about Hyperkalemic periodic paralysis ?

(A) Presents in the 4^{th} decade of life

(B) Duration of episodes lasts around 15-60 minutes

(C) Fasting is a trigger

(D) Myotonia may be present

138. A 52-year-old truck driver since his teenage years presents with tingling in the fourth and fifth digits of his left hand. The tingling is mild but annoying to him. On examination, there is reduced sensation to all modalities on the dorsal and palmar aspect of the fourth and fifth digits from the wrist crease to the finger tips, with preserved strength in all muscle groups. Which of the following statements is correct ?

(A) This man has Carpal tunnel syndrome.

(B) This man has an ulnar neuropathy at the elbow.

(C) This man should be referred to a surgeon.

(D) EMG is expected to show fibrillation protentials in the C6 and C7 mytomes.

139. A 30-year-old obese man who works as a mechanic comes for evaluation of pain and numbness in the lateral aspect of his thigh. There are no motor deficits. Which of the following is the most likely structure involved ?

(A) Lateral femoral cutaneous nerve

(B) Femoral nerve

(C) Saphenous nerve

(D) Obturator nerve

140. A 56-year-old man with a history of diarrhea 2 weeks prior presents with 4 days of difficulty walking and diplopia. On examination, he is very unsteady and cannot walk straight. The motor examination shows full strength; however, the ankle and patellar reflexes are absent. Which of the following antibodies may be involved ?

(A) GM1

(B) GD1a

(C) GD1b

(D) GQ1b

141. A 42-year-old woman with chronic asthma has been treated with oral prednisone for over a year, given difficulties in controlling her illness. She presents with proximal weakness and is noticed to have a cushingoid appearance. Which of the following is correct regarding the most likely cause of this patient's weakness ?

(A) EMG shows non-specific findings

(B) Increasing the steroid dose can help the weakness

(C) Creatine kinase levels are usually elevated more than 10 times

(D) A muscle biopsy is likely to show prominent muscle fiber inflammation

142. A 20-year-old man presents for evaluation of weakness of his face and upper extremities, gradually progressive over the past few years. The patient has a nearly expressionless face, with difficulty closing his eyes tightly and pursing his lips. He has asymmetric proximal upper extremity weakness with difficulty lifting his arms above his head. He also has weakness of foot dorsiflexion. On examination, there is muscle atrophy, more prominent proximally in the upper extremities, with evidence of winged scapula. Interestingly, his upper arms seem "thinner" than his forearms, but his deltoids are relatively spared. Creatine kinase is 510 IU/L (normal 220 IU/L). Which muscular dystrophy does he most likely have ?

(A) Becker

(B) Duchenne

(C) Emery-Dreifuss

(D) Facioscapulohumeral

143. Regarding testing of the autonomic nervous system, which of the following statements is incorrect ?

(A) Tilt table testing is a measure of autonomic function and assesses changes in blood pressure and heart rate that occur with changes in posture.

(B) Normally, with assumption of the upright posture, there is transient bradycardia and hypotension followed by normalization of blood pressure and heart rate.

(C) In the evaluation of syncope with upright tilt table testing, a reduction in blood pressure with bradycardia signifies a neurocardiogenic mechanism.

(D) The thermoregulatory sweat test is a qualitative test of sudomotor function, which can identify patterns of sweating abnormalities that may correspond to different forms of dysautonomia.

144. Which of the following is not a common neurological complication of cardiac bypass ?

(A) Stroke

(B) Demyelinating polyneuropathy

(C) Brachial plexopathy

(D) Encephalopathy

145. Which of the following is not a distal muscular dystrophy ?

(A) Dystrophic myotonia type 2 (DM2)

(B) Miyoshi

(C) Welander

(D) Dystrophic myotonia type 1 (DM1)

146. A 49-year-old man, intravenous drug user, HIV seropositive with a CD4 count of 120 and non-compliant with antiretrovirals, develops progressive neurologic symptoms over several months, including ataxia, spastic paraparesis and sensory loss below his waist. After you examine him you suspect that he has a myelopathy. Which of the following is correct regarding HIV-related myelopathy ?

(A) Copper deficiency is the most important factor for the development of this type of myelopathy.

(B) Vitamin B_{12} deficiency is the most important cause of this type of myelopathy.

(C) Pathologic analysis of the spinal cord shows lateral and posterior column demyelination with microvacuolar changes.

(D) Pathologic analysis of the spinal cord show axonal degeneration as the hallmark finding.

147. Regarding the vascular supply of the spinal cord, which of the following is incorrect ?

(A) There is one anterior spinal artery, which supplies the anterior two-thirds of the spinal cord.

(B) There is one posterior spinal artery, which supplies the posterior third of the spinal cord.

(C) Segmental arteries arising from the aorta and internal iliac arteries feed the circulation at the thoracic and lumbar levels.

(D) There is an epidural venous plexus system which connects pelvic venous plexuses and the intracranial venous system.

148. A 50-year-old man presents with gradually progressive weakness in his upper extremities over the past 6 months. A cervical MRI is obtained and shown below. Based on the localization of the lesion, on examination you will find :

(A) Patellar and ankle areflexia

(B) Sensory level below the line of the nipples

(C) Spared superficial abdominal reflexes

(D) Horner's syndrome

149. A 52-year-old patient with HIV on no antiretroviral treatment comes with a history of longstanding pain in his legs, spasticity in his lower extremities, and gait ataxia. Studies obtained show a positive RPR. Regarding spinal cord disease in syphilis, which of the following is correct ?

(A) Spinal meningovascular syphilis can be present as spinal cord infarction.

(B) The tretment of neurosyphilis is Penicillin G 2 million units per day intravenously for 7 days.

(C) Charcot joints occur from invasion of the joints by the spirochetes.

(D) Patients with tabes dorsalis have sensory deficits to pain and temperature without sensory ataxia.

150. Which of the following is not a structure involved in the formation of new memories within the circuit of Papez ?

(A) Mediodorsal nucleus of the thalamus

(B) Hippocampus

(C) Mammillary bodies

(D) Fornix

151. Most common cause of B/L trigeminal neuralgia is :

(A) Multiple sclerosis

(B) Idiopathic

(C) Vascular

(D) Sjogren syndrome

152. Sea saw nystagmus is seen in :

(A) CVJ Anomaly

(B) Craniopharyngioma

(C) Cerebellar dysfunction

(D) Labyrinthits

153. Which of the following structures encompasses the striatum ?

(A) Caudate, putamen

(B) Putamen, globus pallidus

(C) Thalamus, mammillary bodies

(D) Red nuclei, inferior olivary nuclei

154. Best MRI sequence to detect hemorrhage is :

(A) DWI

(B) Susceptibility Weighted Imaging (SWI)

(C) MRS

(D) Proton Density Imaging

155. All of the following are risk factors for the development of thiamine deficiency except :

(A) Hyperemesis gravidarum

(B) Chronic alcoholism

(C) Treatment of tuberculosis

(D) Hemodialysis

156. The following mechanisms have been implicated in migraine except :

(A) Cortical spreading depression

(B) Vasoactive intestinal peptide

(C) CGRP related vascular dilatation

(D) Oxygen levels in blood

157. Which autoimmune antibodies may be associated with facio-brachial dystonic seizures and epilepsy :

(A) NMDA R Antibodies

(B) AMPA R Antibodies

(C) Anti Hu

(D) VGKC complex antibodies

158. Regarding CJD, which of the following is correct ?

(A) Granulovacuolar degeneration and neurofibrillary tangles are seen on histopathologic specimens.

(B) The familial form is autosomal recessive caused by a mutation in the prion protein gene.

(C) It is caused by scrapie prion protein (PrPSc), which has decreased β-sheet content as compared with cellular prion protein (PrPC).

(D) The typical EEG finding shows a repetitive sharp and wave periodic pattern.

159. In HSV encephalitis, which of the following is a characteristics EEG finding ?

(A) Occipital seizures

(B) Triphasic waves

(C) Periodic lateralized epileptiform discharges

(D) 14- and 6-Hz spikes

160. False about Aicardi Goutieres syndrome is :

(A) Encephalopathy is very rare

(B) Neonatal form presents with microcephaly

(C) Extensive calcification on neuroimaging

(D) Associated with dysfunctional DNA repair

161. Cystic white matter degeneration is associated with all except :

(A) Alexander disease

(B) CADASIL

(C) Adult Polyglucosan disease

(D) Cockayne syndrome

162. The most common recognizable cause of recurrent myoglobinuria is :

(A) CPT II deficiency

(B) Myophosphorylase deficiency

(C) Phosphofructokinase deficiency

(D) Phosphoglycerate kinase deficiency

163. False regarding central pontine myelinolysis is :

(A) Prognosis is uniformly bad.

(B) MRI changes may be delayed.

(C) MRI severity is not prognostic.

(D) Sodium rise need not be in excess of 10 mmol/day for the condition to develop.

164. The score 2 in best motor response of Glasgow coma scale is given to :

(A) Extension

(B) Normal flexion

(C) Abnormal flexion

(D) Localizing pain

165. One of these fungal infections does not produce haemorrhagic stroke :

(A) Aspergillus fumigatus

(B) Mucormycosis

(C) Mucorales

(D) Cryptococcus neoformans

166. The diagnostic test of choice to identify varicella zoster vasculopathy in the CNS is :

(A) Immunoassay detection of anti-VZV IgG antibody in the CSF

(B) CSF VZV RT-PCR

(C) DSA

(D) Brain biopsy

167. Symptoms associated with disruption of Anterior Cingulate Circuit are all except :

(A) Akinetic mutism

(B) Apathy

(C) Poor response inhibition

(D) Mood disorder

168. Which of the following anti epileptic drugs causes ADHD ?

(A) Benzodiazepine

(B) Ethosuximide

(C) Sodium Valproate

(D) Vigabatrin

169. Which of the following about Haloperidol is false ?

(A) Extrapyramidal Syndrome

(B) Prolactin elevation

(C) Glucose Dysregulation

(D) Sedation

170. Opercular Syndrome is a :

(A) Bulbar palsy

(B) Pseudobulbar palsy

(C) Extrapyramidal syndrome

(D) Pancerebellar syndrome

171. Pseudo Foster Kennedy syndrome occurs in :

(A) Anterior Ischaemic Optic Neuropathy (AION)

(B) Frontal SOL

(C) Optic neuritis

(D) Glaucoma

172. All of the following are true of Babinski-Nageotte (Hemimedullary) Syndrome except :

(A) Contralateral hemiplegia

(B) Contralateral hemiataxia

(C) Dysphagia, dysarthria

(D) Atherosclerotic occlusion or dissection of intracranial vertebral artery can cause this syndrome

173. Hiccups occur in :

(A) Superior lateral pontine syndrome.

(B) Superior medial pontine syndrome.

(C) Medial medullary syndrome

(D) Lateral medullary syndrome

174. Epilepsy is associated with SCA :

(A) SCA 1

(B) SCA 3

(C) SCA 10

(D) SCA 6

175. In Oculopalatal myoclonus lesion is in :

(A) Cervicomedullary junction

(B) Deep cerebellar nuclei

(C) Guillain-Mollaret triangle

(D) Dorsal midbrain

176. True about clinical presentation of top of Basilar syndrome :

(A) Collier sign, skew deviation

(B) Auditory hallucinations

(C) Cortical blindness

(D) Pseudoabducens palsy

177. Kufor Rakeb Syndrome is associated with which Parkin Gene :

(A) PARK 1

(B) PARK 2

(C) PARK 3

(D) PARK 9

178. Segmental innervation of Extensor Carpi Radialis Longus :

(A) C5

(B) C6

(C) C7

(D) C8-T1

179. Spetzer-Martin Grading Scale is for :

(A) Subarachnoid hemorrhage

(B) Arteriovenous malformations

(C) Dementia

(D) Stoke survival patients

180. Fowler syndrome occurs in :

(A) Young males

(B) Young females

(C) Older males

(D) Older females

181. Gene in incontinentia pigmenti :

(A) COMT

(B) NPE

(C) NEMO

(D) SLITRK-1 gene

182. Work on CSF pressure was done by :

(A) Quincke

(B) Lundborg

(C) Heymann

(D) Schutler

183. Procerus sign is seen in :

(A) Idiopathic Parkinson disease

(B) Dementia of Lewy Body

(C) Progressive supranuclear palsy

(D) MSA

184. Infarct in the territory of tuberothalamic artery causes all except :

(A) Apathy

(B) Anterograde memory loss

(C) Hemisensory loss

(D) Language impairment in left sided lesions

185. Kleine-Levin syndrome, true is :

(A) Periodic insomnia

(B) Hyperphagia

(C) Loss of interest in home made food items

(D) TSH abnormally high without suggestive clinical features

186. All of the following are seen more with carotid endarterectomy in comparison to carotid stenting except :

(A) Periprocedural access site hematoma

(B) Cranial nerve injury

(C) Myocardial infarction

(D) Periprocedural stroke

187. Multifocal motor neuropathy, false is :

(A) Arms are more frequently affected than legs.

(B) More than 75% patients are females.

(C) Anti ganglioside antibodies (GM1) are found in <50% of patients.

(D) Most patients respond to high dose IVIg.

188. One of the differentiating features of memory loss due to thalamic lesion vs medial temporal lesion is :

(A) Thalamic memory loss is associated with less of confabulation.

(B) Visual memory is affected more in thalamic lesions

(C) Thalamic lesions affect anterograde learning more than retrograde memory loss.

(D) Thalamic memory loss affects remote memories the most.

189. Porphyria not associated with peripheral neuropathy :

(A) Acute intermittent porphyria

(B) Hereditary coproporphyria

(C) Variegate porphyria

(D) Porphyria cutanea tarda

190. Following are sets of tumours presenting as paraneoplastic cerebellar ataxia and the antibodies associated with them. Make correct pairs :

Tumours	Antibodies
(a) Ovary	(1) Anti-Ri
(b) Lung	(2) Anti-Tr
(c) Hodgkin's lymphoma	(3) Anti-Yo
(d) Breast	(4) Anti P/Q voltage gated Ca channel

(A) a-2, b-4, c-1, d-3

(B) a-4, b-3, c-1, d-2

(C) a-3, b-4, c-1, d-2

(D) a-3, b-4, c-2, d-1

191. The following phases of valsalva maneuver are associated with rise in blood pressure :

(A) I, II-early, IV

(B) I, II-late, IV

(C) I, II-early, III

(D) I, II-late, III

192. Heart rate response to deep breathing assesses :

(A) Vasomotor function

(B) Adrenergic function

(C) Sudomotor function

(D) Cardiovagal function

193. Vertebral body corresponding to lower thoracic spinal cord level is :

(A) T10-T12

(B) T12-L1

(C) 2-3 levels higher

(D) 2-3 levels lower

194. Tumour with the greatest propensity to metastasize to the brain :

(A) Melanoma

(B) Lung carcinoma

(C) Breast carcinoma

(D) Ovarian carcinoma

195. All are features of late delayed radiotherapy toxicity to the brain except :

(A) Radiation necrosis

(B) Leucoencephalopathy

(C) Focal demyelination

(D) Endocrine dysfunction

196. Which of the following cerebral blood flow levels correlate with impaired but reversible neuronal function ?

(A) 65 mL/100g/min

(B) 45 mL/100g/min

(C) 35 mL/100g/min

(D) 15 mL/100g/min

197. A 55-year-old male presents with an acute stroke in the right fusiform gyrus. Although he has intact visual fields, he is unable to recognize faces. Interestingly, he is able to identify and name people by their voices. Which of the following best describes his condition ?

(A) Optic aphasia

(B) Prosopagnosia

(C) Anomic aphasia

(D) Cortical blindness

198. Features of Kluver-Bucy syndrome may occur as a part of which of the following neurodegenerative disorders ?

(A) Alzheimer's disease

(B) Schizophrenia

(C) Dementia with Lewy bodies

(D) Pick's disease

199. You are consulted on a 69-year-old woman for significant memory loss following an uncomplicated medical procedure. You suspect transient global amnesia. This disorder typically affects what aspect of memory ?

(A) Immediate memory

(B) Procedural memory

(C) Recent (short-term) memory

(D) Remote memory

200. The mechanism of action of memantine is :

(A) NMDA receptor agonist

(B) Acetylcholinesterase and butyrylcholinesterase antagonists

(C) Acetylcholinesterase antagonist and allosteric nicotinic modulator

(D) NMDA receptor antagonist

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