Neurology MCQs

1) **In hereditary sensori-motor neuropathy types I+II (Charcot-Marie-Tooth)**
   a) the axonal form (type II) is characterised by very slow motor nerve conduction
   b) the axonal form is associated with hypertrophic peripheral nerves commonly palpable clinically
   c) both forms are usually inherited as an autosomal dominant condition
   d) pes cavus is a frequent clinical finding
   e) positive sensory symptoms, e.g. paraesthesia, are commonly prominent despite only minor sensory nerve action potential disturbance

2) **Autonomic neuropathy**
   a) is associated with a fall in systolic pressure of > 30 mmHg
   b) is associated with pupillary constriction with 2.5% methylcholine in each eye
   c) is associated with no change in heart rate when deep breathing at 6 breaths per minute
   d) associated with prolonged breath holding
   e) can be caused by Chaga’s disease

3) **Acute post infective polyneuropathy (Guillain-Barré syndrome) is characteristically associated with**
   a) an increased number of polymorphonuclear white cells in the CSF
   b) some disturbance of sensation
   c) marked muscle wasting
   d) reduced nerve conduction velocity
   e) extensor plantars

4) **Diabetic neuropathies which have a good prognosis and may resolve completely include**
   a) autonomic neuropathy
   b) proximal motor neuropathy
   c) mononeuritis involving cranial nerves
   d) entrapment neuropathies
   e) mixed sensory motor neuropathy

5) **Perforating ulcers of the foot occur in**
   a) varicose veins
   b) sickle-cell disease
   c) tuberculoid leprosy
   d) diabetes mellitus
   e) lead neuropathy

6) **Accepted features of niacin deficiency include**
   a) peripheral neuropathy
b) glossitis  
c) dermatitis  
d) depression  
e) congestive cardiac failure  

7) **Laurence-Moon-Biedl syndrome is characterised by**  
a) peripheral neuropathy  
b) obesity  
c) retinitis pigmentosa  
d) hyperlipaemia  
e) mental retardation  

8) **Recognised complications of chronic renal failure include**  
a) sensory-motor neuropathy  
b) pruritis  
c) metastatic calcification  
d) menorrhagia  
e) proximal myopathy  

9) **Recognised features of giant cell (cranial) arteritis include**  
a) male preponderance  
b) peripheral neuropathy  
c) weight loss  
d) myocardial ischaemia  
e) stroke  

10) **The following may be associated with hypocalcaemia**  
a) convulsions  
b) psychosis  
c) “restless legs”  
d) peripheral neuropathy  
e) papilloedema  

11) **Vitamin B12 deficiency may result in**  
a) sensory ataxia  
b) optic neuritis  
c) psychosis  
d) ‘glove + stocking’ anaesthesia  
e) increased urinary methylmalonyl CoA excretion  

12) **The following anatomical considerations are correct**  
a) optic chiasma lesions characteristically produce a bitemporal hemianopia  
b) central scotoma occurs early in papilloedema  
c) in cortical blindness pupillary reactions are abnormal  
d) optic tract lesions produce an ipsilateral homonymous hemianopia  
e) optocokinetik nystagmus is found with bilateral infarction of the parieto-occipital lobes
13) Peripheral constriction of the visual fields is a recognised feature of
a) optic atrophy secondary to papillaoedema
b) retrobulbar neuritis
c) retinitis pigmentosa
d) compression of the optic chiasma
e) hysterical states

14) The following are recognised manifestations of neurofibromatosis (von Recklinghausen’s disease)
 a) optic atrophy
 b) pigmentation
 c) paroxysms of hypertension
 d) albuminuria
 e) plexiform neuromata

15) The following neurological conditions and signs are correctly matched
 a) Wernike’s encephalopathy: VIth nerve palsy
 b) subacute combined degeneration of the spinal cord: central scotoma
 c) vitamin E deficiency: exagerrated tendon reflexes
 d) hypervitaminosis A: papilloedema
 e) pyridoxine toxicity: optic atrophy

16) Subacute combined degeneration of the cord
 a) is associated with optic atrophy
 b) usually presents with numbness and paraesthesia in the feet
 c) shows brisk abdominal reflexes
 d) produces motor abnormalities which resolve more completely than sensory ones
 e) commonly presents with a spastic paraparesis

17) A quadrantic hemianopia can arise from
 a) a lesion of the occipital cortex
 b) a lesion of the optic chiasma
 c) bilateral diabetic retinopathy
 d) tobacco amblyopia
 e) chloroquine poisoning

18) Complications of Behçet’s syndrome include
 a) thrombophlebitis
 b) ulcerative colitis
 c) erythema marginatum
 d) retrobulbar neuritis
 e) hyperuricaemia
19) **Polymorphonuclear leucocytosis in the CSF may be a feature of**
   a) carcinomatosis of the meninges  
   b) tabes dorsalis  
   c) acute infective polynuritis  
   d) tuberculous meningitis  
   e) acute poliomyelitis

20) **Decreased glucose and high polymorphonuclear cell count in the CSF may be seen in**
   a) Echo virus meningitis  
   b) early tuberculous meningitis  
   c) E. coli meningitis  
   d) meningococcal meningitis  
   e) cryptococcal meningitis

21) **A CSF protein of greater than 1.5 g/l is a characteristic feature of**
   a) multiple sclerosis  
   b) viral meningitis  
   c) acoustic neuroma  
   d) trigeminal neuralgia  
   e) Guillain-Barre syndrome

22) **Herpes simplex encephalitis**
   a) shows a peak incidence in the Autumn  
   b) is associated with a polymorphonuclear pleocytosis in the CSF  
   c) produces a diffuse, evenly distributed inflammation of cerebral tissues  
   d) produces a diagnostic EEG pattern with lateralised periodic discharges at 2 Hz  
   e) should be treated with acyclovir as soon as the diagnosis is confirmed by urgent CSF viral antibody titres

23) **Hypothyroidism**
   a) is more common than hyperthyroidism  
   b) is associated with low serum carotene  
   c) is a cause of pericardial effusion  
   d) may present with cerebellar ataxia  
   e) is associated with a reduced CSF protein

24) **The following are features of encephalitis**
   a) herpes simplex has a reasonably good prognosis in the young  
   b) varcella zoster virus encephalitis is predominantly ‘cerebellar’  
   c) mumps encephalitis can cause unilateral nerve deafness  
   d) herpes simplex predominantly affects the temporal lobe  
   e) herpes simplex encephalitis causes a blood stained CSF

25) **Which of the following may present with epilepsy?**
   a) subdural haematoma
b) alkalosis
c) paragonimiasis
d) hypertension
e) cadmium poisoning

26) **Under the following circumstances patients with fairly well controlled epilepsy are more likely than usual to have seizures:**-

a) after 8 pints of beer  
b) while hard at work in the office  
c) while watching television in the evening  
d) two days preceding menstruation  
e) during a violent argument

27) **Temporal lobe epilepsy is particularly associated with**

a) dreamy states  
b) an olfactory aura  
c) euphoria  
d) repetitive conjugate movements of the eyes  
e) visual hallucinations

28) **Cerebral tumours**

a) situated in the posterior fossa are more likely to be associated with epilepsy than supratentorial tumours  
b) occasionally cause overlying scalp tenderness  
c) are more likely to cause epilepsy if rapidly growing  
d) situated in the cerebellum, do not usually cause papilloedema except in terminal stages  
e) may cause positional vertigo if situated in the region of the fourth ventricle

29) **Phenothiazine derivatives**

a) have an antihistaminic effect  
b) act as local anaesthetics  
c) potentiate the effects of morphine  
d) may cause light hypersensitivity  
e) may precipitate fits in those prone to epilepsy

30) **Which of the following are recognised associations with coeliac disease**

a) temporal lobe epilepsy  
b) milk intolerance  
c) Hashimoto’s thyroiditis  
d) hyposplenism  
e) gastric lymphoma

31) **Myoclonus is caused by**

a) hypercalcaemia  
b) sodium valproate therapy
c) disorders of the olivodentate system
d) subacute sclerosing panencephalitis
e) epilepsy

32) **Motor neurone disease**
a) affects men more commonly than women
b) causes marked slowing of motor nerve conduction velocity
c) affects the bladder and rectal sphincter in the later stages
d) may be mimicked by neurosyphilis
e) may cause early morning headache

33) **The following cranial nerves carry pre-ganglionic parasympathetic nerves**
a) oculomotor nerve
b) trigeminal nerve
c) facial nerve
d) vagus nerve
e) trochlear (IV) nerve

34) **The phrenic nerve**
a) arises predominantly from the third cervical nerve
b) is a purely motor nerve
c) enters the thorax lying on the lateral aspect of the vertebrae
d) runs in front of the root of the lung
e) innervates the diaphragm from below

35) **A lesion of the sciatic nerve causes**
a) loss of sensation along the medial border of the foot
b) loss of ankle jerk
c) loss of knee jerk
d) diminished power of knee flexion
e) an inability to stand on the heels of the affected foot

36) **The following are features of ulnar nerve entrapment at the elbow**
a) it occurs more commonly in women
b) weakness of grip
c) wasting of the thenar eminence
d) symptoms and signs are more obvious when the elbow is flexed
e) pain in the arm is exacerbated by repetitive supination and pronation

37) **The facial nerve**
a) carries preganglionic parasympathetic fibres to the submandibular gland
b) the nucleus receives fibres from both cerebral cortices
c) supplies taste sensation to the posterior 1/3 of the tongue
d) supplies motor fibres to the stapedius muscle
e) supplies touch sensation to the external auditory meatus

38) **The action of noradrenaline released at sympathetic nerve endings is terminated by**
   a) enzymatic decarboxylation
   b) enzymatic inactivation by catechol-O-methyl transferase
   c) re-uptake of noradrenaline by the axonal terminals
   d) oxidative deamination by monoamine oxidase
   e) its removal by the circulating blood

39) **In a IIIrd nerve palsy there is**
   a) ptosis
   b) a constricted pupil
   c) a convergent squint
   d) increased lacrimation
   e) enophthalmos

40) **The median nerve supplies**
   a) the lateral two interossei
   b) half flexor digitorum profundus
   c) abductor pollicis longus
   d) medial lumbricals
   e) flexor pollicis brevis

41) **The ulnar nerve**
   a) innervates the first dorsal interosseus muscle
   b) originates from the medial cord of the brachial plexus
   c) has no branches above the elbow
   d) innervates the medial half of the flexor digitorum profundus
   e) innervates the adductor pollicis muscle

42) **Which of the following may cause a phrenic nerve palsy?**
   a) aortic aneurysm
   b) pericardial cyst
   c) dermoid
   d) ganglioneuroma
   e) sarcoidosis

43) **Pneumococcal meningitis**
   a) has its peak age incidence in childhood
   b) has subarachnoid block as a recognised complication
   c) is a recognised late sequel to splenectomy in children
   d) should be treated with 100 000 units benzyl penicillin intrathecally daily for seven days
   e) can be effectively treated with chloramphenicol in patients hypersensitive to penicillin
44) **Decreased glucose and high polymorphonuclear cell count in the CSF may be seen in**
   a) Echo virus meningitis  
   b) early tuberculous meningitis  
   c) E. coli meningitis  
   d) meningococcal meningitis  
   e) cryptococcal meningitis

45) **Pyogenic meningitis**
   a) is commonly a result of meningococcal infection in the UK  
   b) due to meningococcal infection is very rare in those aged less than 1 year old  
   c) is associated with raised levels of IgM in the cerebrospinal fluid  
   d) due to haemophilus influenzae is prone to run a subacute course in children, with the development of subdural effusion  
   e) is complicated by cranial nerve lesions

46) **Polymorphonuclear leucocytosis in the CSF may be a feature of**
   a) carcinomatosis of the meninges  
   b) tabes dorsalis  
   c) acute infective polyneuritis  
   d) tuberculous meningitis  
   e) acute poliomyelitis

47) **Inappropriate ADH is associated with**
   a) purulent meningitis  
   b) head injury  
   c) pulmonary TB  
   d) acute intermittent porphyria  
   e) subarachnoid haemorrhage

48) **Recognised associations of Mycoplasma Pneumonia include:**
   a) Guillan-Barre Syndrome  
   b) Coombs positive haemolytic anaemia  
   c) ITP  
   d) Bullous myringitis  
   e) cryoglobulinaemia

49) **Mental retardation is an expected finding in**
   a) glycogen storage disease  
   b) alkaptonuria  
   c) lactose intolerance  
   d) maple syrup urine disease  
   e) cystinuria

50) **Parkinsonism may result from**
   a) lead poisoning
b) Wilson’s disease  
c) mercury poisoning  
d) carbon dioxide retention  
e) kernicterus

51) **Idiopathic hypoparathyroidism is associated with**  
a) increased incidence of Addison’s disease  
b) chronic mucocutaneous candidiasis  
c) basal ganglia calcification, commonly causing parkinsonism  
d) short 4th + 5th metacarpals  
e) good response of hypocalcaemia to calcium and vitamin D treatment

52) **Benign essential tremor**  
a) is worsened by alcohol  
b) runs in families  
c) is greater in the lower limbs than the upper limbs  
d) occurs in head  
e) occurs at rest

53) A man aged 40 is found to be uraemic. The following facts might give a useful lead to the aetiology  
a) he had haematuria as a child  
b) he works in an iron foundry  
c) three of his children had haemolytic disease of the newborn  
d) he has taken tablets regularly for fibrositis  
e) he suffers from migraine

54) Which of the following would be expected to follow a unilateral right hemi-transection of the spinal cord at L1?  
a) lack of pain sensation in the left ankle  
b) diminished 2 point discrimination on the right  
c) inability to determine temperature with the right foot  
d) a right extensor plantar response  
e) absent vibration sense at the right tibial tuberosity

55) Within the spinal cord  
a) the posterior spino-cerebellar tract carries impulses from the opposite side of the body  
b) the lateral spino-thalamic tract carries fibres for pain and temperature sensation  
c) the pyramidal tract becomes progressively larger from above downwards  
d) the posterior columns terminate in the gracile and cuneate nuclei  
e) the efferent autonomic pathway lies anterior to the pyramidal tract

56) Immediately after complete spinal cord section in the lower cervical region one would expect  
a) increased muscle tone in the legs  
b) loss of reflexes governing bladder emptying
c) increased tendon jerks
d) a fall in arterial pressure
e) extensor plantar responses

57) The corticospinal tract
a) runs on the anterior aspect of the medulla
b) originates predominantly from the cortical cells of the precentral gyrus
c) does not run in the posterior limb of the internal capsule
d) runs in the pyramid
e) decussates in the midbrain

58) Subacute combined degeneration of the cord
a) is associated with optic atrophy
b) usually presents with numbness and paraesthesia in the feet
c) shows brisk abdominal reflexes
d) produces motor abnormalities which resolve more completely than sensory ones
e) commonly presents with a spastic paraparesis

59) Extensor plantar reflexes with absent knee jerks may occur in
a) Spinal cord compression at the 3rd and 4th lumber levels
b) Friedreich’s ataxia
c) pernicious anaemia
d) multiple sclerosis
e) taboparesis

60) The following neurological conditions and signs are correctly matched
a) Wernicke’s encephalopathy: VIth nerve palsy
b) subacute combined degeneration of the spinal cord: central scotoma
c) vitamin E deficiency: exagerrated tendon reflexes
d) hypervitaminosis A: papilloedema
e) pyridoxine toxicity: optic atrophy

61) Characteristic features of Friedreich’s ataxia include
a) autosomal dominant trait
b) areflexia
c) extensor plantar response
d) hypertrophic obstructive cardiomyopathy
e) DNA-triplet repeat sequences

62) Cerebellar ataxia is a recognised complication of the following
a) varicella
b) falciparum malaria
c) paratyphoid fever
d) legionnaire’s disease
e) Isospora belli infection
63) **Distal occlusion of the posterior cerebral artery may produce**
   a) contralateral hemiplegia
   b) homonymous hemianopia
   c) dysarthria
   d) cerebellar ataxia
   e) palatal palsy

64) **Claw feet deformities are seen with**
   a) Wernicke’s encephalopathy
   b) Charcot’s arthropathy
   c) syringomyelia
   d) Friedreich’s ataxia
   e) peroneal muscular atrophy

65) **The following are features of encephalitis**
   a) herpes simplex has a reasonably good prognosis in the young
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   d) herpes simplex predominantly affects the temporal lobe
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66) **Recurrent sterile meningitis is recognised with:**
   a) Behcet disease
   b) Guillain-Barre syndrome
   c) Sarcoidosis
   d) Tuberculosis
   e) Lepromatous leprosy

67) **The following are recognised causes of bilateral lower motor neurone lesion of the seventh cranial nerve:**
   a) Guillain-Barre syndrome
   b) Sarcoidosis
   c) Leprosy
   d) Myaesthenia gravis
   e) Pseudobulbar palsy

68) **The Arnold-Chiari malformation:**
   a) Produces hydrocephalus
   b) Is often associated with syringomyelia
   c) Is associated with lumbosacral spina bifida
   d) Is associated with congenital heart lesions
e) Produces bladder dysfunction

69) **Cerebrospinal fluid protein of 3g/litre (300mg%) is a finding in:**

a) Beriberi polyneuritis  
b) General paresis of the insane  
c) Subdural haematoma  
d) Tuberculous meningitis  
e) Congenital toxoplasmosis

70) **Complications of meningococcal meningitis include:**

a) Hydrocephalus  
b) Paraparesis  
c) Cortical blindness  
d) Deafness  
e) Peripheral neuropathy

71) **Retrobulbar neuritis:**

a) Typically produces enlargement of the blind spot  
b) Is caused by disseminated sclerosis  
c) Is caused by pentavalent tryparsamides  
d) Is caused by congenital toxoplasmosis  
e) Is caused by B12 deficiency

72) **Mydriasis is found in:**

a) Oculomotor nerve paralysis  
b) Horner’s syndrome  
c) Retrobulbar neuritis  
d) Iritis  
e) Holmes-Adie pupil syndrome

73) **Dementia is a recognised feature of:**

a) Pick’s disease  
b) A meningioma  
c) Parkinson’s disease  
d) Normal pressure hydrocephalus  
e) Motor neurone disease