



श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेंद्रम , केरल- 695 011
(एक राष्ट्रीय महत्व का संस्थान, विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार)
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Entrance Examination 2020- DM _ Neurology (Padiatrics)

Sl No	Question	Answer	OptionA	OptionB	OptionC	OptionD
1	Which of the following investigation is gold standard for diagnosis of isolated CNS angitis?	B	MRI with contrast	Meningocortical biopsy	Cerebral angiogram	High resolution MR-vessel wall imaging
2	Which among the following inherited disease can be associated with non-atheromatous vasculopathies and young stroke?	B	MELAS	Ehlers Danlos type IV	Protein C deficiency	Homocystinuria
3	Which among the following is NOT a component of ABCD2 score used for risk stratification of TIA?	A	Age 50 or above	Diabetes mellitus	Duration of symptoms	Clinical –weakness/speech impairment
4	Commonest site of hypertensive intracerebral bleed	B	Caudate	Putamen	Thalamus	internal capsule
5	Which among the following is a primary hemostatic disorder due to platelet adhesion defect?	C	Scott's syndrome	Glanzmann's thrombaesthesia	Von Willebrand disease	Afibrinogenemia
6	Assymmetric tonic neck reflex disappears in an infant by ----- months of age.	C	2 months	3 months	4 months	5 months
7	Sleep related rhythmic movements like head banging and body rocking are observed in children between -----age	A	3 months-12 months	1-3 years	3-5 years	>6 years of age
8	Taste sensation from the anterior two-thirds of the tongue courses through all the following nerves EXCEPT:	A	Greater (Superficial) Petrosal nerve	Lingual nerve	Chorda tympani	Nervus intermedius
9	Which among the following is the principal neurotransmitter involved in the basal ganglia output to the thalamus and brainstem?	D	Dopamine	Glutamic Acid	Glycine	Gamma Amino Butyric Acid
10	Which among the following gene mutations cause early onset Parkinsonism with pyramidal signs?	C	LRRK2	SNCA	FBX07	PARKIN
11	Which among the following is a dimorphic fungus?	C	Aspergillus	Rhizopus	Candida	Cryptococcus
12	Which among the following is the first-line / primary drug of choice for the treatment of aspergillosis?	A	Voriconazole	Amphotericin B	Fluconazole	Flucytosine
13	Which among the following antihypertensive medications has been shown to have efficacy as prophylactic medication against migraine?	B	Cilnidipine	Candesartan	Clonidine	Captopril
14	Which among the following is the preferred target for Deep Brain Stimulation in patients with generalized dystonia?	C	Dorsolateral Putamen	Head of Caudate Nucleus	Globus Pallidus internus	Red nucleus
15	Which among the following medications is used as the preferred treatment for Paroxysmal Kinesigenic Dyskinesia (PKD)?	B	Levodopa	Carbamazepine	Anticholinergics	Tetrabenazine
16	Gray platelet syndrome is caused by:	C	Absence of ATP containing granules	Congenital absence of metalloproteinase	Absence of platelet alpha granules	Antibodies against metalloproteinase
17	Which among the following is the most common pathological correlate of HIV-associated nephropathy?	D	Membranous glomerulopathy	Membranoproliferative glomerulopathy	Interstitial nephropathy	Focal segmental glomerulosclerosis
18	The most likely diagnosis in a seven year old girl with normal development who has periods of inattention and poor performance in school is due to:	D	Complex partial seizure.	Rasmussen encephalitis	Progressive myoclonus epilepsy.	Childhood absence epilepsy
19	A single normal electroencephalogram (EEG) in a person thought to have complex partial seizures	D	Can rule out a diagnosis of epilepsy	Indicates that a patient does not have mesial temporal sclerosis	Suggests a diagnosis of generalized epilepsy	Should be repeated if clinically indicated
20	Which of the following agents had by far the greatest incidence of fatal rhabdomyolysis?	A	Cerivastatin	Lovastatin	Simvastatin	Atorvastatin
21	Cyanotic or blue breath-holding attacks occurs due to	B	breath holding that occurs during inspiration	breath holding that occurs during expiration	neurally mediated vagal discharge	hyperventilation
22	Most of the identified genes associated with epilepsy are	A	Ion channels and neurotransmitter receptors	Ion channels and neurotransmitter receptors	Protease inhibitors	Cell growth promoters
23	Frontotemporal dementia has been associated with mutations in the gene coding for which of the following?	B	α-Synuclein	Tau protein	Amyloid precursor protein	Superoxide dismutase
24	Which of the following genetic tests would best detect a balanced chromosomal translocation ?	C	Chromosomal microarray	Whole exome sequencing	Karyotype	Multiplies ligation dependent probe amplification
25	In the spinal cord, motor neuron cell bodies are located in	C	Lamina II.	Lamina V.	Lamina IX	Lamina I.
26	Food is prevented from entering the larynx during the pharyngeal phase of swallowing by	A	constriction of the laryngeal entrance.	upward movement of the epiglottis.	downward movement of the larynx.	increase in respiratory rate
27	Which brain structure is typically involved in periodic alternating nystagmus?	C	Middle cerebellar peduncle	Flocculus	Nodulus	Fastigial nucleus

28	The frontal circuit associated with motivational behaviour is	D	Supplementary motor circuit	Dorsolateral prefrontal circuit	Orbitofrontal circuit	Anterior cingulate circuit
29	Limbic encephalitis presentation is classical for all the following antibody mediated/associated encephalitis EXCEPT	C	GABA B encephalitis	LG11 encephalitis	mGluR1 encephalitis	Anti-Hu antibody mediated encephalitis
30	A 25-year-old male presented with bilateral ptosis, facial weakness, distal upper limb weakness and difficulty in releasing grip. His father has bilateral ptosis. What is the genetic test of choice?	C	Clinical exome sequencing	Multiple ligase-dependent probe amplification	Triplet repeat primed PCR	Targeted gene sequencing
31	Acute necrotizing myopathy is causally linked to which of the following drugs?	D	Cochicine	Chloroquine	Amiodarone	Statins
32	Which of the following statements is FALSE about ostium secundum atrial septal defect?	D	Second heart sound has a wide fixed split during all phases of respiration	Closure is advisable for asymptomatic patients with right ventricular hypertrophy	Risk of arrhythmia is higher in adults undergoing ASD repair	Isolated defects are less common than syndromic forms
33	Which of the following statements is TRUE regarding pregnancy and systemic lupus erythematosus?	C	Risk of fetal loss is not influenced by disease activity	Co-existence of anti-La antibodies increase the risk of congenital heart block in the newborn	Hydroxychloroquine therapy reduces the risk of fetal congenital heart block in future pregnancies	Azathioprine is absolutely contraindicated during pregnancy
34	The following are true of antiphospholipid antibodies(aPLs) except	D	Patients with Sneddon syndrome harbour aPLs	They can present with multiinfarct dementia	Cardiac valvular lesions are seen in patients with aPLs	Chorea is one of the commonest presentation in patients with aPLs
35	Quadruple sectoranopia is diagnostic of infarction in territory of	A	Anterior choroidal artery	Posterior choroidal artery	Proximal posterior cerebral artery	Thalamogeniculate artery
36	Regarding endothelin receptor antagonist, which of the following is true	C	Bosentan and Macitentan are endothelin A selective receptor antagonist	Ambrisentan is a nonselective receptor antagonist	Ambrisentan was studied in ARIES -1 trial	Bosentan was studied in ARIES 1 trial
37	The following are true of newborn eye except	B	The cornea is smaller than that of adult	Most infants are myopic	Tears are not present with crying until 1-3 months of age	Iris color may change in the first several months of age
38	A 1 year old child has ascending paralysis with peripheral neuropathy.CSF study shows normal cells with raised protein.Which bacteria can precipitate this syndrome	C	Corynebacterium diphtheria	Clostridium botulinum	Campylobacteria jejunei	Shigella dysenteria serotype 1
39	The following are true of olfactory dysfunction in COVID 19 except	D	The incidence of olfactory dysfunction in COVID 19 varies from 30-70%	Anosmia is a prominent sign of SARS-CoV2 infection	Patients with COVID 19 can present with anosmia without any other symptoms	Recovery from anosmia is poor in Covid 19
40	Which of the following solutes is present in higher concentrations in CSF than serum,	D	Calcium	Chloride	Magnesium	Both b and c
41	glymphatic system promotes elimination of metabolites from which system	D	Upper GI tract	Lower GI tract	Respiratory system	Central Nervous system
42	True about Van der Knaap disease is all except	B	Dysmyelinating disorder	Associated with microcephaly	Anterior temporal subcortical cysts Anterior temporal subcortical cysts	Normal NAA on MRS
43	Which of the following tumors is most commonly associated with opsoclonus-myoelonus?	A	Neuroblastoma	Medulloblastoma	Juvenile pilocytic astrocytoma	Ependymoma
44	Hereditary Neuropathy with liability to Pressure Palsies (HNPP) is associated with	D	MPZ duplication	MPZ deletion	PMP22 duplication	PMP22 deletion
45	18-year-old man presents with 1 month of headaches and 10 days of increasing ataxia. He has a past medical history of renal cysts. There is a strong family history of renal cancer and "brain tumors." Which of the following is his most likely underlying diagnosis?	A	Hemangioblastoma related to Von Hippel-Lindau syndrome	Vestibular schwannoma related to neurofibromatosis 2	Optic glioma related to neurofibromatosis 1	Cerebellar hamartoma related to Cowden syndrome
46	Elastosis perforans serpiginosa (EPS) is a reactive perforating dermatosis associated with	C	Colchicine	Methotrexate	Penicillamine	Cisplatin
47	Cranial nerve XII supplies muscles of the tongue except the ,	B	Intrinsic muscles	palatoglossus	genioglossus	styloglossus
48	Congenital myasthenic syndromes (CMS) with COLQ gene mutation responds to	C	Fluoxetine	Quinidine	Ephedrine	Both A and B
49	All are true about MuSK myasthenia except	A	Donot involve facial and bulbar muscles	One third do not respond well to anticholinesterase drugs	Can develop atrophy of lingual muscles	high frequency of respiratory crisis
50	Which of the following hypothalamic nuclei controls the circadian rhythm?	D	Supraoptic nucleus	Lateral nucleus	Anterior nucleus	Suprachiasmatic nucleus
51	Baroreceptors in each carotid sinus sends information about distention of the vessel wall to the brainstem through	A	Glossopharyngeal nerve	Vagus nerve	C1 and C2 spinal nerves	Trigeminal nerve

52	Which of the following condition is considered as a functional disorder of autonomic nervous system?	D	Multiple system atrophy	Parkinson's disease	Diabetic neuropathy	Complex regional pain syndrome
53	The drug of choice in the treatment of a child with attention deficit hyperactivity disorder	A	Methylphenidate	Duloxetine	Clonazepam	Topiramate
54	Anterior neuropore closes at	C	16 days' gestation	20 days' gestation	24 days' gestation	28 days' gestation
55	Pulvinar sign in MRI brain is seen in	B	Sporadic Creutzfeldt–Jakob disease	Variante Creutzfeldt–Jakob disease	Familial Creutzfeldt–Jakob disease	Iatrogenic Creutzfeldt–Jakob disease
56	The most common gene mutation associated with typical Rett syndrome is	D	Cyclin-dependent kinase-like 5(CDKLS) ☒	Forkhead box protein G1 (FOXP1)	17q21.31 microdeletion	Methyl CpG binding protein 2 (MECP2) ☒
57	The metabolic abnormality detected by amino acid analysis in Maple Syrup Urine Disease is	C	Marked elevation in plasma levels of methionine and homocysteine	Moderate elevation in plasma levels of serine and glycine	marked elevations in plasma levels of leucine, isoleucine and valine	Moderate elevations in plasma levels of threonine and alanine
58	A 40 year-old male patient presented with acute glomerulonephritis, asthma and peripheral eosinophilia. Renal biopsy showed focal segmental necrotizing glomerulonephritis without eosinophils and granulomas. What is the most likely diagnosis ☒	C	Microscopic Polyangiitis ☒	Wegener's granulomatosis	Churg-Strauss Syndrome ☒	Goodpasture's syndrome ☒
59	Which of the following structures concerned with geographic gnosis represents the inferior and anterior continuation of the cingulate gyrus beyond the splenium of the corpus callosum?	D	Lingual gyrus	Occipitotemporal gyrus	Cuneus	Parahippocampal gyrus
60	Which of the following is a feature of cortical amnesia due to bilateral mesial temporal lobe lesions?	C	Prominent confabulation to "fill-in" memory gaps	Isolated verbal retrieval deficits on recall tasks	Prominent verbal-visual encoding deficits on recall tasks	Less aware of deficit in comparison to anteromedial thalamic lesions
61	Which of the following statements is a feature of pure word blindness:	A	Interhemispheric disconnection syndrome	Patients cannot read and write on dictation	Cannot identify the word by tracing letters	Due to dominant angular gyrus lesions
62	Regarding the pathology seen in Alzheimer's disease, the following statement is true:	A	Neurofibrillary tangles are intracellular deposits of a microtubule associated protein and ubiquitin	Neuritic plaques are intracellular deposits that contain beta-amyloid and other proteins	Plaques are not found in the cerebral and meningeal blood-vessel walls	Greatest risk is with Apo E4/E2 heterozygous genotype
63	Which of the following inborn errors have X-linked recessive inheritance?	C	Hurler syndrome	Biotinidase deficiency	Ornithine transcarbamylase deficiency	Acute intermittent porphyria
64	A characteristic of cholelithiasis in children is:	D	>70% are usually cholesterol type stones	15-20% are usually pigment type stones	Black pigment gallstones are composed of cholesterol and organic matrix	Brown pigment stones form mostly in infants due to biliary tract infection
65	What is not a feature of primary hemochromatosis?	B	Linked to HLA-A locus on chromosome 6	Hypergonadotropic hypogonadism	Elevated transferrin and ferritin	Alcoholism is a risk factor
66	The false statement with regard to Hepatitis C virus (HCV) infection is:	C	At least 6 major genotypes of HCV have been identified by nucleotide sequencing	High mutation rate interferes with effective humoral immunity	Heterologous and homologous immunity appears to develop commonly after acute HCV infection	Hepatic steatosis and clinical progression are more likely in genotype 3
67	Which of the following is NOT true in a patient with post traumatic right trochlear nerve palsy	A	Patient would have head tilt to the right side	Right eye will be hypertropic due to inferior oblique overaction	There would be failure of intorsion in right eye	Patient will have diplopia maximum on looking left and down
68	Which of the following features would make a diagnosis of Aquaporin 4 antibody positive neuromyelitis optica spectrum disorder highly likely?	B	Typical optic neuritis	Area postrema syndrome	Multiple asymptomatic brain lesions	Encephalopathic presentation in childhood
69	Mr. X, 44 years is found to have cryptococcal meningitis in the setting of advanced HIV infection. He has been started on Flucytosine. About half of the AIDS patients treated with flucytosine for cryptococcal meningitis are forced to discontinue it because of;	A	Neutropenia	Hepatic dysfunction	Steven Johnson Syndrome	Thrombocytopenia
70	The true statement regarding temporal neocortical epilepsy as compared to mesial temporal epilepsy is all EXCEPT	B	Auditory aura is common	Lesser chance for secondary generalisation	Less propensity for oral automatisms	Less chance for contralateral dystonic posturing

71	A 2-year-old boy presented to the emergency department with 3 episodes of right focal seizures in a single day. He had mild global developmental delay and has glaucoma. On examination he had paucity of right side and port wine stain over the left side of face. What is the commonest MRI brain finding associated with this condition?	B	Hemimegalencephaly	Leptomeningeal angioma	Hemangioblastoma	Venous telangiectasia
72	A 12-year old boy is brought to the out-patient clinic with history of recurrent symptoms, noticed over the preceding two years characterized by stiffness and aching sensation in thigh and shoulder girdle muscles following activities like running, climbing stairs or lifting heavy weights. A few of these occasions were followed by passing cola-colored urine. The symptoms used to appear within the initial few minutes of the activity, and on many of the occasions, he could resume the activity after a few minutes of rest, without any further interruption. His general as well as neurological examination is within normal limits. He has no symptoms to suggest a cardiovascular dysfunction. The parents could not recollect anybody in the family with similar symptoms. Which of the following is most likely to be responsible for his symptoms?	A	Phosphorylase deficiency	Debrancher deficiency	CPT II (Carnitine Palmitoyl Transferase II) deficiency	Primary Muscle Carnitine Deficiency.
73	A 14 month old boy, with normal birth and development history is brought to the emergency room with fever and running nose of one day duration and a single, generalized seizure, lasting for 5 minutes. The boy is alert and active. Temperature is found to be 38.0 C. He has no neurological deficits or signs of meningeal irritation. His optic fundus is normal.	D	He should be started on Phenobarbitone, and should be continued on the same to avoid recurrence of febrile seizures in future.	Sodium valproate has no role in his treatment, as it has been found to be ineffective for the prevention of febrile seizure recurrence, in various clinical trials.	He should be treated with oral diazepam for 3 days during the current and future febrile spells, to prevent the development of epilepsy later in life.	He requires only antipyretics and supportive treatment
74	In Rheumatic mitral regurgitation, which medication is preferred to reduce regurgitate volume and preserve left ventricular function?	C	Digoxin	Betablockers	ACE-inhibitors	Diuretics
75	What is the current definition of Juvenile oligoarthritis as per ILAR (International League of Association for Rheumatologists) ?	A	Arthritis involving less than 5 joints, during the first 6 months of life	Arthritis involving less than 2 joints ,for at least 2 weeks	Arthritis involving at least one small and one large joint with no time specification	Arthritis of less than or equal to 3 joints in either small joints or large joints
76	" Ragged red" fibre can be seen in all EXCEPT:	D	Mitochondrial cytopathy	Zidovudine myopathy	MERRF	Facioscapulohumeral muscular dystrophy
77	A previously normal 3-year-old boy presents with language regression over the past 3 months. Video-EEG monitoring revealed left centrotemporal spikes, very frequent in sleep and rare in wakefulness, as well as focal slowing. Which of the following is the most likely diagnosis?	B	Autistic regression	Landau-Kleffner syndrome	Continuous spikes and waves during slow wave sleep syndrome	Rett syndrome
78	A 4-month-old boy has exhibited generalized hypotonia and weakness since birth. He also has scoliosis and slow pupillary responses to light. Which of the following congenital myasthenic syndromes is the most likely diagnosis?	B	acetylcholine receptor deficiency	acetylcholinesterase deficiency	choline acetyltransferase deficiency	fast-channel syndrome
79	Duodopa is	C	aerosol preparation of Levodopa/carbidopa	transdermal preparation of Levodopa/carbidopa	intestinal infusion of Levodopa/carbidopa	new subcutaneous injectable preparation of Levodopa/carbidopa to escape freezing /severe off phases
80	Proprioceptive nerve endings in synovial joints are located in	B	articular cartilage and synovial membrane.	ligaments and articular discs.	synovial membrane and capsule.	capsule and ligaments.
81	All of the following can be typical clinical abnormalities in Friedreich's ataxia except	C	Cardiomyopathy	Kyphoscoliosis	Retinitis pigmentosa	Sensorineural hearing loss
82	Poly hill sign is seen in which of the following muscular dystrophies ?	C	Duchenne Muscular Dystrophy	Calpainopathy	Facio Scapulo Humeral Muscular Dystrophy	Congenital Muscular Dystrophy
83	Lesions in which among the following sites in the Brachial plexus results in weakness of wrist extensors and arm abductors	A	Posterior cord	Medial cord	Lateral cord	Lower trunk
84	All the following are true of Lambert Eaton Myasthenic syndrome except	D	DELTA P score is used in tumor association prediction	Characterised by autonomic features and areflexia	It is a presynaptic disorder	Most common tumor association is adenocarcinoma lung
85	How many exons does the Dystrophin gene have ?	B	88	79	51	63
86	All of the following are false regarding Neurofibromatosis 1 except	C	Gene for NF 1 is located on Chromosome 17p22	The inheritance is autosomal recessive	Penetrance is 100%	Incidence is 1 in 30000-40000 live births
87	Which among the following occurs as a result of lateral transtentorial herniation in acute SDH ?	B	Hemiparesis contralateral to SDH	Duret's hemorrhages	Both	None

88	Which among the following is a constant according to the Munro Kellie doctrine ?	D	Intracranial blood +CSF+ brain pressure	Total CSF pressure	Total CSF volume	Intracranial blood +CSF+ brain volume
89	Which of the following represents the osmolality of the low osmolality WHO ORS in mmol/L	D	211	250	311	245
90	Coronary artery abnormalities is a complication of which among the following childhood diseases	A	Kawasaki disease	Measles	Juvenile Rheumatoid arthritis	Scarlet fever
91	The site of absorption of Vitamin B12 is	C	Duodenum	Jejunum	Ileum	Stomach
92	Which of the following can reliably diagnoses Pleural effusion due to Congestive Cardiac Failure (CCF)?	C	Pleural fluid/serum LDH ratio	Gamma Interferon level in Pleural fluid	NT-Pro BNP level in Pleural fluid	Pleural fluid/serum Atrial Natriuretic peptide ratio
93	Headaches are uncommon in	C	CADASIL	Temporal Arteritis	Leukoaraiosis	Reversible Cerebral Vasoconstriction Syndrome (RCVS)
94	Potential collateral flow in Chronic occlusion of terminal Internal Carotid Artery (ICA) can be from all except	B	Middle meningeal Artery	Ophthalmic Artery	ACoM	PCoM
95	PTH independent Hypercalcemia occurs in all except	A	Lithium therapy	Humoral hypercalcemia of malignancy	Hyperthyroidism	Adrenal Insufficiency
96	Which of the following can result in aseptic meningitis	D	NSAIDs	IVIgG	INH	All of the above
97	Anterior horn cell tropism is not a feature of myelitis related to	C	West Nile Virus	Zika Virus	HTLV-1	Polio Virus
98	CSF Polymorphonuclear Pleocytosis can occur in all of the following except.	D	West Nile Virus encephalitis	CMV Myeloradiculitis	Enteroviral Myelitis	HHV-6 Encephalitis
99	The least useful investigation in an 8 year old boy with ADHD	B	TFT	Peripheral smear	Serum Lead levels	EEG
100	Encephalopathy in 'Refeeding Syndrome' is mainly related to	B	Hypoglycemia	Thiamine deficiency	Hypophosphatemia	Hypomagnesemia