

श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकीसंस्थान, तिरुवनंतपुरम्-11
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES & TECHNOLOGY
THIRUVANANTHAPURAM—695 011

ENTRANCE EXAMINATION - ACADEMIC SESSION JANUARY 2019

PROGRAMME: DM NEUROLOGY (GENERAL MEDICINE)

Time:90 Minutes

Max. Marks: 100

(Select the most appropriate answer)

(There are no **negative** marks for wrong answers)

1. All of the following micro-organisms display "acid-fastness" EXCEPT:
 - A. Mycobacterium bovis
 - B. Nocardia
 - C. Cryptococcus
 - D. Isospora
2. The most common presentation of extrapulmonary tuberculosis in HIV infected patients is:
 - A. Tuberculous meningitis
 - B. Lymph node tuberculosis
 - C. Cerebral parenchymal tuberculoma
 - D. Intestinal tuberculosis
3. Which of the following antiplatelet drugs is a prodrug, which needs metabolic activation by hepatic cytochrome P450 enzyme system?
 - A. Dipyridamole
 - B. Cangrelor
 - C. Clopidogrel
 - D. Ticagrelor

4. Chimeric Antigen Receptor (CAR) therapy utilizes and modifies the function of which among the following host cells to kill tumor cells?
- A. T Lymphocytes
 - B. Monocytes
 - C. Tissue Macrophages
 - D. B Lymphocytes
5. Select the MOST APPROPRIATE statement regarding anti-phospholipid antibody (APLA) syndrome
- A. The most common arterial event in APLA syndrome is peripheral arterial occlusion.
 - B. Anti- β 2-glycoprotein I antibody testing correlates better with clinical events than Lupus Anticoagulant (LA) testing
 - C. IgM antiphospholipid antibodies are more strongly associated with clinical events than IgG antibodies.
 - D. Thrombocytopenia is a major clinical manifestation but is not included in the revised Sapporo Classification Criteria.
6. A 55-year old obese lady with diabetic nephropathy and end stage renal disease on peritoneal dialysis presents with livedo reticularis and multiple, bilateral, exquisitely painful skin lesions in the form of indurations, nodules and plaques. The lesions progressed rapidly to stellate malodorous ulcers with black eschars; the skin surrounding the lesions was indurated and leather-like. She had a progressively worsening course, developed sepsis and soon succumbed to the illness. What is the most likely diagnosis?
- A. Toxic Epidermal Necrolysis
 - B. Thrombotic microangiopathy
 - C. Disseminated Cryptococcosis
 - D. Calciphylaxis
7. Which among the following malignancies in HIV infected patients is considered to be "AIDS- defining"?
- A. Cervical cancer
 - B. Anal Cancer
 - C. Lung cancer
 - D. Hodgkin's lymphoma

8. The SOFA scoring system is used in the assessment and prognostication of patients with:

- A. Chronic Type 2 respiratory failure
- B. Sepsis
- C. Post-cardiac arrest sequelae
- D. Bone marrow failure

9. Which among the following is a non-insulin medication approved for improved glyemic control in patients with Type 1 Diabetes?

- A. Anagliptin
- B. Pramlintide
- C. Empagliflozin
- D. Dulaglutide

10. The 2015 Nobel Prize in Physiology or Medicine was awarded to Tu Youyou for her contribution to the treatment of which of the following conditions?

- A. Human Immunodeficiency Virus Infections
- B. Ebola Virus Infections
- C. Multiple Sclerosis
- D. Malaria

11. Approximately what percentage of the cardiac output is received by the healthy kidneys?

- A. 10%
- B. 15%
- C. 20%
- D. 30%

12. Prominent "y" descent in right atrium pressure waveform is seen in:

- A. Restrictive Cardiomyopathy
- B. Effusive-constrictive pericarditis
- C. Constrictive pericarditis
- D. Cardiac tamponade

13. Twiddler's syndrome is a complication seen in patients who have undergone:
- A. Aortic valve replacement
 - B. Mitral valve replacement
 - C. Permanent pacemaker implantation
 - D. Cardiac transplants
14. Epley maneuver is used to treat which among the following conditions?
- A. Benign Paroxysmal Positional Vertigo of anterior semicircular canal
 - B. Benign Paroxysmal Positional Vertigo of posterior semicircular canal
 - C. Meniere's disease
 - D. Benign Paroxysmal Positional Vertigo of horizontal semicircular canal
15. Which among the following is a major manifestation of Vitamin B6 Toxicity?
- A. Sensory neuropathy
 - B. Motor neuropathy
 - C. Hepatic microvesicular steatosis
 - D. Sclerosing cholangitis
16. Which among the following drugs cause Acute Kidney Injury by precipitating inside the tubules and causing tubular obstruction?
- A. Amphotericin B
 - B. Vancomycin
 - C. Rifampicin
 - D. Acyclovir
17. Which among the following conditions is regarded as a classical example of an "Autoinflammatory" disorder?
- A. Familial Mediterranean Fever
 - B. Acute Intermittent Porphyria
 - C. Rheumatoid arthritis
 - D. Behcet Disease
18. Select the TRUE statement regarding Grave's disease
- A. Shows an increased occurrence in the post-partum period in women
 - B. Decreases in iodine intake precipitates Grave's disease
 - C. Grave's ophthalmopathy occurs in the absence of hyperthyroidism in around 30% of the patients
 - D. Typical age of onset is 50-70 years

19. Wolfram's Syndrome is characterized by all of the following EXCEPT:
- A. Diabetes Mellitus
 - B. Diabetes Insipidus
 - C. Cardiomyopathy
 - D. Optic Atrophy
20. Envenomation by the Indian Red Scorpion (*Mesobuthus Tamulus*) results in toxicity by which of the following mechanisms?
- A. Endothelial damage and diffuse capillary leak
 - B. Massive release of glutamate in brain and excitotoxicity
 - C. Neuromuscular blockade
 - D. Release of endogenous catecholamines
21. Which among the following is approved for therapy of osteoporosis?
- A. Eculizumab
 - B. Omalizumab
 - C. Denosumab
 - D. Solanezumab
22. Which among the following is regarded as a classic finding on chest imaging, in allergic bronchopulmonary aspergillosis?
- A. Focal bronchiectasis involving the apical segments
 - B. Central bronchiectasis
 - C. Interstitial infiltrates confined to the periphery
 - D. Mediastinal lymphadenopathy
23. What is the minimum duration of glucocorticoid therapy for type 2 lepra reactions?
- A. 4-6 weeks
 - B. 3-6 months
 - C. 8-12 months
 - D. 18 months
24. Which among the following can cause hypermagnesemia?
- A. Prolonged use of Proton Pump Inhibitors
 - B. Bartter's syndrome
 - C. Vitamin D deficiency
 - D. Burns

25. Which among the following joints is usually spared in Osteoarthritis?
- A. Ankle
 - B. Distal interphalangeal joint in hands
 - C. Proximal interphalangeal joint in hands
 - D. Hip
26. All the following conditions typically cause hypochromic microcytic anemia except:
- A. Thalassemia
 - B. Myelodysplastic syndromes
 - C. Chronic Kidney Disease
 - D. Iron deficiency
27. In the kidneys, Renin is secreted by granular cells located in the:
- A. Efferent arteriole
 - B. Macula densa
 - C. Proximal convoluted tubule
 - D. Afferent arteriole
28. What is the approximate 10-year survival rate of Chronic Myeloid Leukemia patients treated with imatinib mesylate?
- A. 85%
 - B. 65%
 - C. 45%
 - D. 30%
29. Choose the correct statement regarding treatment of prostate cancer?
- A. Diethylstilbestrol acts by blocking testosterone receptors in the prostate gland
 - B. Orchiectomy combined with flutamide is used to cause "total androgen blockade"
 - C. The recommended primary hormonal manipulation in prostate cancer is orchiectomy combined with leuprolide
 - D. Goserelin is a luteinizing hormone (LH) receptor antagonist and is as effective as orchiectomy.

30. A 55-year-old gentleman with schizophrenia on antipsychotics was found to have tardive dyskinesia and was started on tetrabenazine. Which among the following adverse effects should be carefully looked for, during follow-up?
- A. Worsening of psychosis
 - B. Neutropenia
 - C. Hyponatremia
 - D. Parkinsonism
31. The state in which a cell is having a mixture of normal and abnormal mitochondrial genome is called:
- A. Mosaicism
 - B. Heteroplasmy
 - C. Chimerism
 - D. Heteroploidy
32. The antipsychotic, Clozapine, has higher affinity for which among the following dopamine receptors?
- A. D2
 - B. D3
 - C. D4
 - D. D5
33. Select the TRUE statement regarding Systemic Sclerosis (Scleroderma)
- A. Obliterative bronchiolitis is the commonest pulmonary manifestation
 - B. Treatment of choice for renal crisis is short acting Angiotensin Converting Enzyme (ACE) inhibitors
 - C. Patients having autoantibodies to RNA Polymerase III have been found to have a reduced risk of malignancy compared to general population
 - D. Drug of choice for Raynaud's phenomenon in Systemic Sclerosis is β -adrenergic blockers.
34. Enfuvirtide is an antiviral agent active against:
- A. HIV-1
 - B. HIV-2
 - C. Both HIV 1 & 2
 - D. Human papilloma virus

35. A newly developed test to diagnose a disease "X" is applied to 100 patients proven to have the disease and 200 healthy volunteers without the disease. Of the 100 who actually have the disease, 60 test positive and 40 test negative with the newly developed test; of the 200 healthy volunteers proven to be free of the disease, 20 test positive and 180 test negative. What is the specificity of the newly developed test, for making a diagnosis of the disease?
- A. 60%
 - B. 80%
 - C. 82%
 - D. 90%
36. Which among the following antibiotics is associated with Serotonin Syndrome when co-administered with selective serotonin-reuptake inhibitors?
- A. Ofloxacin
 - B. Clarithromycin
 - C. Linezolid
 - D. Chloramphenicol
37. Which among the following trials compared Percutaneous Coronary Interventions (PCI) with Coronary Artery Bypass Graft (CABG) in patients with diabetes and coronary artery disease involving multiple vessels?
- A. COURAGE trial
 - B. COPERNICUS trial
 - C. FREEDOM trial
 - D. ENCHANTED trial
38. All the following statements are true regarding HIV associated nephropathy EXCEPT:
- A. Majority of the affected patients have CD4+ T cell count $< 200/\mu\text{L}$.
 - B. There is a racial predilection
 - C. Edema and hypertension are rare
 - D. Proteinuria is not seen generally

39. Which among the following antibacterial agents act by inhibiting nucleic acid synthesis / damaging the DNA?
- A. Linezolid
 - B. Metronidazole
 - C. Polymyxin B
 - D. Rifapentine
40. Which among the following is a non-benzodiazepine anxiolytic agent?
- A. Buspirone
 - B. Ziprasidone
 - C. Bupropion
 - D. Aripiprazole
41. Which among the following pathophysiological mechanisms is implicated in the genesis of post-traumatic stress disorder (PTSD)?
- A. Suppressed cholinergic activity in basal forebrain regions
 - B. Excessive release of nor-epinephrine from locus coeruleus
 - C. Dysregulated serotonin release from the raphe nuclei
 - D. D1 /D2 dopaminergic receptor mismatch in amygdala
42. Cytoplasmic antineutrophil cytoplasmic antibody (c-ANCA) is an antibody to which of the following antigens?
- A. Lactoferrin
 - B. Cathepsin G
 - C. Elastase
 - D. Proteinase 3
43. What is the approximate amount of bilirubin produced per day, normally in an adult human body?
- A. 50-75 mg
 - B. 100-150 mg
 - C. 250 – 300 mg
 - D. 400-450 mg

44. What is the approximate sensitivity of D-dimer assay for pulmonary thrombo-embolism?
- A. 50-60%
 - B. 70 %
 - C. 80-85%
 - D. >95%
45. Which among the following is the most common pituitary hormone hypersecretion syndrome in men?
- A. Hyperprolactinemia
 - B. Growth hormone hypersecretion
 - C. ACTH hypersecretion
 - D. TSH hypersecretion
46. Which among the following mitochondrial diseases is sporadic and NOT maternally inherited?
- A. Kearns- Sayre Syndrome
 - B. MELAS
 - C. MERRF
 - D. Leigh Disease
47. Maturity Onset Diabetes of the Young (MODY) is associated with mutations in which of the following genes?
- A. Phosphoglycerate mutase
 - B. Phosphofructokinase
 - C. Glucokinase
 - D. Glycogen synthase kinase 3
48. "Commotio Cordis" is characterized by:
- A. Ventricular fibrillation
 - B. Rupture of myocardium
 - C. Hemopericardium
 - D. Coronary artery laceration

49. Which among the following is the treatment of choice for acute attacks of porphyria?
- A. Hydroxychloroquine
 - B. Beta-carotene
 - C. Phlebotomy
 - D. Hemin
50. Nipah virus belongs to which among the following family of viruses?
- A. Flaviviridae
 - B. Filoviridae
 - C. Paramyxoviridae
 - D. Bunyaviridae
51. Which among the following deficits is a common accompaniment of Wernicke's aphasia?
- A. Right facial weakness
 - B. Right Hemiparesis
 - C. Right hemianopia
 - D. Right hemisensory loss
52. Which among the following cranial nerves pass through the Dorello's canal, in close relation with the petroclinoid ligament?
- A. Trochlear nerve
 - B. Abducens nerve
 - C. Mandibular division of trigeminal nerve
 - D. Facial nerve
53. Single Nucleotide Polymorphisms of *LINGO1* gene has been found to be associated with which among the following conditions?
- A. Parkinson's disease
 - B. Multiple System Atrophy
 - C. Tourette Syndrome
 - D. Essential tremor

54. The efferent connections of anterior nucleus of the thalamus goes to which among the following areas?

- A. Cingulate gyrus
- B. Dorsolateral prefrontal cortex
- C. Orbitofrontal cortex
- D. Motor and premotor cortices

55. Charles Bonnet Syndrome is characterized by:

- A. Visual hallucinations in elderly with defective vision
- B. Auditory hallucinations in Parkinson's disease patients with cognitive dysfunction
- C. Grandiose delusions in patients with Neurosyphilis
- D. Psychosis in patients with right temporal lesions

56. Single fiber electromyography is most useful in the diagnosis of which among the following conditions?

- A. Limb Girdle Muscular Dystrophy
- B. Myotonic dystrophy
- C. Myotubular myopathy
- D. Myasthenia gravis

57. Which among the following viruses are the most common cause of Viral meningitis?

- A. Arboviruses
- B. Herpes Simplex Virus
- C. Enteroviruses
- D. Epstein Barr Virus

58. A 36-year-old lady who was apparently normal previously presented with hearing loss evolving sub-acutely, followed by defective vision, headache, memory loss, behavioral disturbances and a progressive encephalopathy. Her ophthalmic evaluation revealed branch retinal artery occlusions. MRI brain showed multiple small focal lesions involving supra and infratentorial regions, and both grey and white matter structures were affected; lesions were seen in corpus callosum and there was meningeal enhancement as well. What is the most likely diagnosis.

- A. Neuro-Behcet's disease
- B. Susac's Syndrome
- C. Primary Central Nervous System vasculitis
- D. Neurosarcoidosis

59. The treatment of choice for Segawa variant dystonia (DYT5) is:

- A. Trihexyphenidyl
- B. Deep Brain Stimulation of Globus Pallidus
- C. Megadose Vitamin B6
- D. Levodopa

60. The Westphal variant of Huntington's disease is characterized by:

- A. Visual dysfunction
- B. Parkinsonism
- C. Normal cognition
- D. Autosomal recessive inheritance

61. Which among the following nerves arise from the posterior cord of the Brachial Plexus?

- A. Thoracodorsal nerve
- B. Long Thoracic nerve
- C. Nerve to subclavius muscle
- D. Musculocutaneous nerve

62. A 35-year-old lady presents with acute myelitis. Which among the following features will favor a diagnosis of Neuromyelitis Optica, more than Multiple Sclerosis?

- A. Presence of peri-ventricular T2 hyperintense lesions in MRI of Brain
- B. Short segment and partial involvement of the spinal cord
- C. Absence of oligoclonal bands in CSF
- D. Presence of contrast-enhancement

63. Which among the following Apolipoprotein E gene alleles confer an increased risk of Alzheimer disease?
- A. Apo E1
 - B. Apo E2
 - C. Apo E3
 - D. Apo E4
64. Which among the following is classified as a trigeminal autonomic cephalalgia?
- A. Migraine
 - B. Tension Type Headache
 - C. Cluster Headache
 - D. Primary thunderclap headache
65. The NASCET trial studied which of the following?
- A. Symptomatic carotid stenosis
 - B. Stroke prevention in atrial fibrillation
 - C. Thrombolytic therapy in acute ischemic stroke
 - D. Surgery Vs Intervention therapy for Intracranial aneurysms
66. Which among the following surgical procedures is done for medically refractory tonic or atonic seizures of Lennox-Gastaut Syndrome?
- A. Anterior temporal lobectomy
 - B. Corpus callosotomy
 - C. Amygdalo-hippocampectomy
 - D. Hemispherectomy
67. Which among the following anti-epileptic drugs is known to cause renal stones, glaucoma and weight loss as its adverse effects?
- A. Lacosamide
 - B. Topiramate
 - C. Lamotrigine
 - D. Primidone

68. Mutations in the Pantothenate Kinase 2 (PANK2) gene results in a progressive neurodegenerative disease characterized by accumulation of which among the following in the brain?
- A. Iron
 - B. Manganese
 - C. Magnesium
 - D. Copper
69. Which among the following is a feature of Landau Kleffner Syndrome?
- A. Visual agnosia
 - B. Visual hallucinations
 - C. Auditory hallucinations
 - D. Auditory agnosia
70. The term "Pallesthesia" refers to:
- A. Sense of rotation
 - B. Spatial discrimination of tactile sensations
 - C. Sense of vibration
 - D. Emotional component of pain
71. The climbing fibers in the cerebellum are the terminal ramifications of fibers from:
- A. Dentate nucleus
 - B. Red nucleus
 - C. Inferior olivary nucleus
 - D. Pontine nuclei
72. Mutations in the Glucocerebrosidase gene, associated with Gaucher's disease, is also the most important genetic risk factor for the development of which among the following neurodegenerative diseases?
- A. Alzheimer's disease
 - B. Motor Neuron Disease
 - C. Parkinson's disease
 - D. Fronto-temporal dementia

73. Which among the following is the mechanism of action of the anti-epileptic drug, Perampanel?
- A. Blocking of Glutamate NMDA receptor
 - B. Blocking of Glutamate AMPA receptors
 - C. GABA receptor agonist action
 - D. Stimulation of GABA release
74. Myotonia worsening with repetitive activity is seen in:
- A. Paramyotonia congenita
 - B. Myotonia congenita
 - C. Proximal myotonic myopathy
 - D. Myotonic dystrophy
75. Which among the following conditions is allelic with susceptibility to malignant hyperthermia?
- A. Ullrich congenital muscular dystrophy
 - B. Nemaline myopathy
 - C. Centronuclear myopathy
 - D. Central Core Disease
76. Heart blocks, bradycardia and macular edema are clinically important adverse effects of which among the following medications used in the treatment of multiple sclerosis?
- A. Fingolimod
 - B. Dimethyl fumarate
 - C. Teriflunomide
 - D. Alemtuzumab
77. 'Lorenzo's oil' has been used for the treatment of which among the following neurological conditions?
- A. Metachromatic Leukodystrophy
 - B. Adrenoleukodystrophy
 - C. Tangier disease
 - D. Krabbe's globoid cell leukodystrophy

78. All of the following are components of 'Balint's syndrome' EXCEPT:
- A. Oculomotor apraxia
 - B. Optic Ataxia
 - C. Simultanagnosia
 - D. Achromatopsia
79. In Wernicke's encephalopathy due to thiamine deficiency, the memory dysfunction correlates most closely with damage to which of the following areas?
- A. Medial temporal lobes
 - B. Hippocampus
 - C. Amygdala
 - D. Dorsomedial thalamus
80. Exposure to which of the following medications in the first trimester of pregnancy has been linked to Autistic Spectrum Disorders, in epidemiological studies?
- A. Phenobarbitone
 - B. Sodium Valproate
 - C. Trihexyphenidyl
 - D. Phenytoin
81. Which among the following is the characteristic MRI Brain finding in Sturge-Weber Syndrome?
- A. Leptomeningeal angiomas
 - B. Sub-ependymal nodules
 - C. Cerebellar hemangioblastomas
 - D. Hemi-megalencephaly
82. What is the treatment of choice for 'multifocal motor neuropathy with conduction block' (MMN-CB)?
- A. Glucocorticoids
 - B. Plasma exchange
 - C. Intravenous Immunoglobulin
 - D. Natalizumab

83. In which of the following neurological disorders is autonomic dysfunction generally NOT seen as a clinically significant manifestation?
- A. Chronic inflammatory demyelinating polyradiculoneuropathy (CIDP)
 - B. Guillain Barre Syndrome
 - C. Alcoholic neuropathy
 - D. Porphyria
84. Which among the following is the most likely diagnosis in an infant with progressive macrocephaly, hypotonia and severe developmental delay, with the MRI of Brain showing diffuse white matter degeneration predominantly involving the cerebral hemispheres and magnetic resonance spectroscopy (MRS) showing a high peak of N-acetylaspartic acid (NAA).
- A. Van der Knaap disease
 - B. Glutaric aciduria type II
 - C. Gaucher's disease
 - D. Canavan disease
85. All the following cellular components of the nervous system develop from neuroectodermal cells EXCEPT:
- A. Oligodendrocytes
 - B. Ependymal cells
 - C. Microglia
 - D. Astrocytes
86. A 40-year old gentleman with unilateral foot drop is being evaluated. Which among the following abnormalities is odd for peroneal neuropathy as a cause of his foot drop?
- A. Weakness of ankle eversion
 - B. Absent ankle jerk
 - C. Presence of sensory abnormalities on examination
 - D. Toe extension weakness

87. What is the pathogenic mechanism underlying Parsonage-Turner Syndrome?
- A. Radiation necrosis
 - B. Immune mediated injury
 - C. Mechanical compression
 - D. Malignant infiltration
88. Increased intensity in the basal ganglia and cortical ribboning in FLAIR and diffusion weighted MRI sequences is characteristic of which of the following conditions?
- A. Creutzfeldt-Jakob disease
 - B. Corticobasal degeneration
 - C. Machado-Joseph disease
 - D. Argyrophilic grain disease
89. The MRI technique "Diffusion Tensor Imaging" is useful for assessing:
- A. Anatomy and integrity of white matter tracts
 - B. Vasogenic edema in acute stroke
 - C. Differentiation between inflammatory and neoplastic pathology
 - D. Integrity of blood brain barrier
90. A 28-year old male patient with Wilson's disease has the following biochemical values: Total Serum Copper: 28 microgram / dL, Serum Ceruloplasmin: 4 mg / dL. How much will be his serum free copper?
- A. 24 microgram / dL
 - B. 20 microgram / dL
 - C. 16 microgram / dL
 - D. 12 microgram / dL
91. Which among the following areas in the brain has been implicated in the development of addictive behaviors?
- A. Substantia nigra
 - B. Nucleus basalis of Meynert
 - C. Subiculum
 - D. Ventral tegmental area and median forebrain bundle

92. All the following are features of Rasmussen encephalitis EXCEPT:
- A. Epilepsia partialis continua
 - B. Intractable seizures
 - C. Photoparoxysmal epilepsy
 - D. Hemiparesis
93. Which among the following is the mechanism by which Rapamycin exerts beneficial therapeutic effects in animal models of neurodegenerative diseases?
- A. Inhibition of apoptosis
 - B. Inhibition of protein misfolding
 - C. Blocking excitotoxicity
 - D. Induction of autophagy
94. Which among the following is TRUE regarding Holmes tremor?
- A. Most of the cases are primary (idiopathic, without any demonstrable lesion)
 - B. It is a slow (low frequency) tremor
 - C. Rest tremor is characteristically absent
 - D. Amplitude is generally low.
95. Which among the following is the antibody associated with Bickerstaff encephalitis?
- A. Anti-MOG
 - B. Anti-Glycine Receptor
 - C. Anti GQ1b
 - D. Anti-amphiphysin
96. Which among the following is the most common manifestation of arterial ischemic strokes in term neonates?
- A. Lethargy
 - B. Apnea
 - C. Bulging fontanel
 - D. Seizures

97. Which among the following medications has been tried in the management of “persistent vegetative state” and “minimally conscious state” and has shown some benefits in clinical trials?
- A. Amantadine
 - B. Intrathecal piracetam
 - C. Ginkgo biloba extract
 - D. Perampanel
98. Which among the following is the most appropriate term for the inability to correctly order or sequence a series of movements to achieve a goal, leading to trouble in carrying out the steps of a multistep task in proper order?
- A. Conceptual apraxia
 - B. Ideational apraxia
 - C. Ideomotor apraxia, parietal variant
 - D. Ideomotor apraxia, disconnection variant
99. All the following are components of the ‘Direct pathway’ in the basal ganglia circuits, except:
- A. Caudate Nucleus
 - B. Subthalamic nucleus
 - C. Putamen
 - D. Globus Pallidus internus (GPi)
100. Pittsburgh Compound B ($[^{11}\text{C}]$ PiB) is used in the diagnostic imaging of which among the following neurological disorders?
- A. Alzheimer’s disease
 - B. Parkinson’s disease
 - C. Medial temporal lobe epilepsy due to hippocampal sclerosis
 - D. Focal cortical dysplasia

