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1. PATHOLOGY

PAPER WMC

1. A 15-year-old boy is rushed to the emergency room after suffering a tonic-clonic seizure 4 weeks after a bite by a rabid bat. The boy appears irritable and agitated, and his parents state that he has difficulty swallowing fluids. Lumbar puncture shows numerous lymphocytes. The patient becomes delirious, slips into a coma, and expires. At autopsy, the brain stem shows infiltrates of lymphocytes around small blood vessels and evidence of neuronophagia. Some neurons contain eosinophilic inclusions. What is the proper name for these neuronal inclusions?

- Councilman bodies
- Hirano bodies
- Lewy bodies
- Negri bodies
- Psammoma bodies

2. Acetylcholine is a neurotransmitter that provides for communication between muscles and nerves. When there is a problem with the interaction between acetylcholine and the acetylcholine receptor sites on the muscles, which condition(s) can occur?

- Guillain-Barre Syndrome
- Myasthenia Gravis
- Parkinson's Disease
- Multiple Sclerosis
- Alzheimer disease

3. An 88-year-old woman with Alzheimer disease dies of congestive heart failure. Examination of the brain at autopsy shows bilateral atrophy of the gyri, particularly in the frontal and hippocampal cortex. What additional finding might be expected in the brain of this patient?

- Cerebritis
- Hydrocephalus ex vacuo
- Lissencephaly
- Pachygyria
- Periventricular patches of demyelination

4. A 35-year-old man with Down syndrome dies of acute lymphoblastic leukemia. Gross examination of the patient's brain at autopsy shows mild microcephaly and underdevelopment of the superior temporal gyri. Histologic examination would most likely show which of the following neuropathologic changes?

- AA amyloidosis
- Lewy bodies
- Negri bodies
- Neurofibrillary tangles
- Spongiform encephalopathy

5. A 45-year-old woman is rushed to emergency room following an automobile accident. Ten hours after admission, the patient complains of a severe headache and blurred vision. An X-ray film of the cranium shows a fracture of the temporal parietal bone. Despite emergency craniotomy, the patient dies. Which of the following pathologic findings would be expected at autopsy?

- Epidural hematoma
- Intracerebral hemorrhage
- Intraventricular hemorrhage
- Subarachnoid hemorrhage
- Subdural hematoma

12. A previously healthy 31 years old female experiences a sudden severe headache and loses consciousness within an hour. CT scan reveals extensive subarachnoid hemorrhage at the base of the brain. A lumbar puncture yields cerebrospinal fluid with many red blood cells, but no white blood cells. The CSF protein is slightly increased, but the glucose is normal. Which of the following is the most likely diagnosis?

- a. Acute bacterial meningitis
- b. Ruptured berry aneurysm
- c. Progressive multifocal leukoencephalopathy
- d. Hypertensive hemorrhage
- e. Amyloid arteriopathy

13. The best described etiology for Berry aneurysm is which of the following?

- a. Degeneration of internal elastic lamina
- b. Degeneration of tunica media
- c. Defect in muscular layer
- d. Low grade inflammation in the vessel wall
- e. Defect in tunica intima

14. Most common site for berry aneurysm is

- a. Basilar artery
- b. Anterior communicating artery
- c. Posterior communicating artery
- d. Posterior cerebral artery
- e. Middle cerebral artery

15. Middle meningeal vessel damage results in:

- a. Subdural hemorrhage
- b. Extradural hemorrhage
- c. Subarachnoid hemorrhage
- d. Intracerebral hemorrhage
- e. Intraparenchymal hemorrhage

16. A 12-year-old boy is rushed to the emergency room in a coma after falling from an upper story window of his home. MRI shows a subdural hematoma over the left hemisphere. What is the

most likely source of Intracranial bleeding in this patient?

- a. Bridging veins
- b. Charcot-Bouchard aneurysm
- c. Internal carotid artery
- d. Middle meningeal artery
- e. Sagittal sinus

17. The 28 yrsold male has a concussion injury while boxing. He persists in a vegetative coma for several months and then expires. A section of the temporal lobe shows massive proliferation of cells with a star-shaped appearance. Which of the following best accounts for this cellular response to injury?

- a. Axonal regeneration
- b. Chromatolysis
- c. Gliosis
- d. Leukodystrophy
- e. Neuronophagia

18. A 5-year-old boy is brought to the emergency room with fever, vomiting, and convulsions. The patient is febrile to 39.5°C (104°F), Physical examination reveals cervical rigidity and pain in the neck and knees. Acute inflammation most likely involves which anatomic region of the patient's brain?

- a. Choroid plexus
- b. Ependyma
- c. Hypothalamus
- d. Lateral ventricles
- e. Leptomeninges

19. A 32-year-old woman presents with a 2-day history of headache, vomiting, and fever. Physical examination reveals cervical rigidity and knee pain with hip flexion. Lumbar puncture demonstrates an abundance of neutrophils and decreased levels of glucose. Which of the following diseases is most likely associated with these clinical laboratory findings?

- a. Meningococcal meningitis
- b. Neurosarcoidosis
- c. Staphylococcal meningitis
- d. Tuberculous meningitis
- e. Viral meningitis

20. A 50-year-old man presents to the emergency room after suffering an epileptic seizure. Vital signs are normal. An X-ray of the patient's head shows a mass in the left cerebral hemisphere with scattered foci of calcification. Histologic examination of a brain biopsy rounded tumor cells with a clear halo around them (fried egg appearance). Which of the following is the appropriate diagnosis?

- a. Ependymoma
- b. Glioblastoma
- c. Hemangioblastoma
- d. Meningioma
- e. Oligodendroglioma

21. Which anatomic structure/region produces the CSF that accumulates in the brain of the neonate with hydrocephalus?

- a. Arachnoid
- b. Choroid plexus
- c. Corpus callosum
- d. Pia mater
- e. Subependymal areas of the cerebral hemispheres

22. A 68-year-old man presents with a 2-week history of tonic-clonic seizures that initially involve his left arm but have more recently progressed to involve his left leg. The seizures are accompanied by muscle weakness but no other neurologic signs. A CT scan reveals a mass in the left cerebral hemisphere. A left frontoparietal craniotomy is performed. Histologic examination of the brain biopsy shows extensive necrosis and palisading of tumor cells around necrosis. Which of the following is the appropriate diagnosis?

- a. Craniopharyngioma
- b. Ependymoma
- c. Ganglioglioma
- d. Glioblastoma multiforme
- e. Meningioma

23. 65 years old person was brought by his family. He was subconscious and inability to move his right upper limb, on inquiring he was suffering from

Diabetes mellitus and hyper tension, he was taking some medicine for hypertension and diabetes mellitus, for the past two days he has skipped taking antihypertensive medication, on examination his BP was 210/130 mmHg, pulse 90 beats per minute and temperature was 99 FO what may be the clinical condition he was suffering.

- a. Meningitis
- b. Epilepsy
- c. Cerebrovascular accident
- d. Encephalitis
- e. Parkinsonism

24. 45 years old male patient presented with sudden onset of worsening paraplegia. He gives history of fever cough and since 3 months. On examination power is 3/5 in bilateral lower limbs. Tone is increased bilaterally, reflexes are brisk and plantars are bilateral upgoing.

- a. Motor neuron disease
- b. Guillian barre syndrome
- c. Myasthenia gravis
- d. Tuberculous spine
- e. Multiple sclerosis

25. Internuclear ophthalmoplegia is a sign of

- a. Motor neuron disease
- b. Occulomotor nerve palsy
- c. Abducent nerve palsy
- d. Multiple sclerosis
- e. Transverse myelitis

26. 60 years old smoker a known hypertensive with poor control and non-compliant to his drugs presents sudden onset severe headache and vomiting. Describes as the worst headache of his life. Followed by unconsciousness. On examination the neck is stiff, BP 190/100 no focal neurological sign.

- a. Subarachnoid haemorrhage
- b. Meningococcal meningitis
- c. Viral encephalitis
- d. Tuberculous meningitis
- e. Potts disease

27. Following dysentery a 20 years old female presented with backache and progressive weakness of lower limbs over the past 5 days with recent weakness in upper limbs as well. The following will be expected.

- a. Deep breathing
- b. High levels of proteins with normal cells in the CSF
- c. High tone in the upper limbs
- d. High tone in the lower limbs
- e. Upgoing plantars

28. An acute attack of multiple sclerosis is best treated with

- a. Beta interferon
- b. Methotrexate
- c. Intravenous methylprednisolone
- d. Physiotherapy
- e. NSAIDS

29. The following is a true statement

- a. Fasciculations indicate an upper motor neuron illness
- b. Muscle wasting indicates an upper neuron illness
- c. There are no upper motor neurons in the spinal cord
- d. Upper motor neuron facial palsy spares the forehead
- e. Bells palsy is an upper motor neuron facial palsy

30. Glove and stocking pattern of sensory disturbance usually develops in the disease in

- a. Autonomic pathways
- b. Peripheral nerves
- c. Brainstem
- d. Spinal cord
- e. Thalamus

31. All are characteristic features of Parkinson's disease except

- a. Bradykinesia
- b. Rigidity
- c. Tremors
- d. Stooped posture
- e. Pendular knee jerk

32. The following is not a sign of meningeal Irritation

- a. Brudzinski's sign

- b. Grey turner sign
- c. Kernigs sign
- d. Neck stiffness
- e. Pain on flexion of neck

33. 35 years old male presents with sudden onset of weakness of lower limbs started from the foot and ascending upwards. He also gives a history of diarrhea a few days ago. On examination power in the lower limbs is 2/5. ankle and knee jerk are absent. Plantars are mute. What is the diagnosis

- a. Multiple sclerosis
- b. Potts disease
- c. Myasthenia gravis
- d. Guillian barre syndrome
- e. Lewy body dementia

34. 50 years old man presents with difficulty in walking, small handwriting and resting tremors. On examination he had mask like face, limbs were rigid. and rest of the neurological examination was ok

- a. Spastic paraparesis
- b. Trasverse myelitis
- c. Alzheimers disease
- d. Paskinsons disease
- e. Crudzfeldt Jacobs disease

35. An 18 year old hears voices discussing him in the third person he has:

- a. Temporal lobe epilepsy
- b. Depression
- c. Mania
- d. Schizophrenia
- e. Anxiety

36. The most appropriate statement regarding spinal tumors is

- a. Extradural spinal tumors have the least incidence among =11.
- b. Astrocytotoms are intramedullary tumors
- c. Among Extradural tumorsmetastasis is the commonest tumors.
- d. Back pain secondary to spinal tumors does not occur on lying lying positions.
- e. Meningiomas have the least vascularity

37. Following statement is not correct regarding Aneurysmal SAH,

- a. Surgical clipping or coiling is the end treatment.
- b. Delayed cerebral ischemia is the main cause of death.
- c. The risk of rebleeding is greatest in first 7 days.
- d. SAH in these patients does not cause hydrocephalus.
- e. Prophylactic anticonvulsants have no role in SAH.

38. Etiology of acute ataxia is

- a. Wilson disease
- b. Ataxic cerebral palsy
- c. Guillain Barre Syndrome
- d. Ataxia telangiectasia
- e. Leukodystrophy

39. Which one is not the sign of pyogenic meningitis?

- a. Fever
- b. Diarrhea
- c. Headache
- d. Vomiting
- e. Neck stiffness

40. The best investigation for the diagnosis of pyogenic meningitis is

- a. Complete blood count
- b. CT SCAN brain
- c. X-ray chest
- d. Complete examination of cerebrospinal fluid
- e. Blood culture

41. The common bacteria which causes meningitis

- a. Pneumococcus
- b. Haemophilus influenza
- c. Nesserria meningitis is
- d. Staphylococcus
- e. All of the above

42. Pathognomic sign for diagnosis of tuberculous meningitis is

- a. Neck stiffness
- b. Severe headache
- c. Coma
- d. Tubercles on ophthalmoscope
- e. Fits

43. Immediately after the surgery, the patient is usually shifted to

- a. CCU
- b. PACU
- c. ICU
- d. HDU
- e. Recovery Room

PAPER GMC

1. A 2 year old child presents with fever, headache, protraction and nuchal rigidity. The cerebrospinal fluid is cloudy and microscopic examination reveals innumerable neutrophils. The CFS protein is increased and glucose is decreased. The most likely etiologic agent is.

- a. Eschenchia coli
- b. Hemophilus influenzae
- c. Group B streptococci
- d. Streptococcus pneumoniae
- e. Staphylococcus aureus

2. A 40 years old female who has had progressive signs of central nervous system compression fully recovers following resection of an intracranial neoplasm. These clinical findings are highly suggestive of a specific diagnosis. Assuming that this diagnosis is correct. Which of the following is the most characteristic?

- a. Extra cranial metastasis
- b. Fried egg appearance of tumor cells
- c. Multiple areas of necrosis & hemorrhage within tumor
- d. Origin in arachnoidal cells of meninges
- e. Tumor cells arranged in rosette pattern

3. In Axonotmesis following structure is disrupted.

- a. Axon
- b. Endoneurium
- c. Epineurium
- d. Perineurium
- e. Distal segment of nerve

4. A 45 year old man suddenly developed severe headache followed by neurologic deterioration and unconsciousness. CT scan showed rupture of

arteriovenous aneurysm. What is the location of vascular injury in central nervous system?

- a. Cerebellum
- b. Epidural space
- c. Subdural space
- d. Subarachnoid space
- e. Intra parenchymal region

5. A 15 year old boy presented with tinnitus and hearing loss. On CT scan a tumor was found at cerebellopontine angle. On biopsy microscopically the tumor show cellular areas that had spindle cells arranged into intersecting fascicles and hypocellular areas having myxoid extracellular matrix. What is the most likely diagnosis?

- a. Dermatofibroma
- b. Malignant peripheral nerve sheath tumor
- c. Neurofibroma
- d. Schwannoma
- e. Triton tumor

6. Vestibular schwannomas, also called acoustic neuromas, almost always arise from the vestibular division of the 8th cranial nerve. Which of the following is the Hallmark symptom of this condition?

- a. Dizziness
- b. Disequilibrium
- c. Sensation of pressure or fullness in the ear
- d. Slowly progressive unilateral sensorineural hearing loss
- e. Numbness in the face

7. Most common tumor associated with Neurofibromatosis in children is?

- a. ML
- b. JMML (juvenile myelomonocytic leukemia)
- c. ALL
- d. CML
- e. CLL

8. Weakness in myasthenia gravis is first noted in.

- a. Extraocular muscles
- b. Facial muscles
- c. Respiratory muscles
- d. Skeleton muscles
- E. Smooth muscle

9. Myasthenia gravis is more common in women because.

- a. An x linked disorder
- b. An autoimmune disease
- c. Antibodies are present
- d. Presence of thymic hyperplasia
- e. Associated with thymoma

10. A 40 year old female presented with ptosis, diplopia and generalized weakness. Her weakness increases with repeated movements. What is the most probable diagnosis?

- a. Brain tumor
- b. Encephalitis
- c. Lambert Eaton syndrome
- d. Myasthenia Gravis
- e. Tabes Disease

11. A 48 year old man is referred to AE dept as he complains of severe headache and blurring of vision, the doctor on examination of CFS found it to be blood stained. What is the single most likely diagnosis?

- a. Bacterial meningitis
- b. Epidural hematoma
- c. Subarachnoid hemorrhage
- d. Tuberculosis meningitis
- e. Viral Encephalitis

12. 18 years male presented with headache high grade fever and severe vomiting from 3 days. On examination conscious oriented there is neck stiffness and petechial rash on the shin. On investigations raised WBC of 13.5, raised N/E shows Turbed appearance, polymorphonuclear cells (Neutrophils) 350/mm³, normal lymphocytes count and what is your diagnosis?

- a. Acute bacterial meningitis
- b. Brain abscess
- c. Cerebral Malaria
- d. Subarachnoid Hemorrhage
- e. Tuberculosis Meningitis

13. 15-year female presented with high grade fever with rigors ,headache and vomiting.On examination positive kernig's & Brudzinsk's signs diagnosed and treated as Acute bacterial meningitis .

- Name a bacteria causing meningitis
- What will be the glucose amount on CFS routine examination in this patient?
- What will be the polymorphonuclear cells count in CFS in this case
- None of the above

14. A 40 years old patient came to hospital with complaints of headache and vomiting.After completing investigations the diagnosis is made as Brain abscess.what will be the most common offending organism identified in non immunosuppressed patient?

- Candida and Nickersia
- Ecoli and Niasseria
- Neisseria and Ecoli
- Staphylococci and streptococci
- Taenia and Treponema

15. A HIV positive patient presents with fever , headache and conversations .On MRI multiple ring enhancing lesions seen . What will be the most possible diagnosis in this case?

- Cerebral edema
- Cerebral Toxoplasmosis
- Encephalitis
- Glioma
- Meningitis

16. What is Cushing's triad?

- Decrease ICP,HTN, Tachycardia
- Increase ICP,HTN, Bradycardia
- Increase ICP,HTN, Tachycardia
- Increase ICP, hypotension, Bradycardia
- Increase ICP, hypotension, Tachycardia

17. Which is the most common brain tumor of posterior cranial fossa in children?

- Glioblastoma
- Hemangioma

- Meningioma
- Medulloblastoma
- Pilocytic astrocytoma

18. Which is the only nerve affected in multiple sclerosis?

- Abducent nerve
- Ocular nerve
- Olfactory nerve
- Optic nerve
- Trigeminal nerve

19. Meningitis is defined as inflammation of the meninges and Subarachnoid space and may be classified under several different categories.Of these categories,which of the following types is particularly serious due to the speed of its progression?

- Acute bacterial meningitis
- Aseptic meningitis
- Noninfectious meningitis
- Viral meningitis
- None of above

20. When diagnosing meningitis,which of the following findings is a key indicator of meningeal irritation?

- Fever
- Headache
- Myalgia
- Nuchal rigidity
- All of above

21. What is the major cause of dealt in my asthenia gravis?

- Auto immunity
- Myocardial infection
- Respiratory compromise
- Skeleton muscle weakness
- Stroke

22. A young female presented in the OPD with throbbing,severe pain in head , pain is on one side of head, worsening with exertion, pain is associated with nausea, vomiting and photophobia.According to the patient she has these episodes for the last 08 months and the duration of this pain is mostly 4 to 22 hours .

- a. Tension type headache
- b. Cluster headache
- c. Trigeminal neuralgia
- d. Panic attacks
- e. Migraine headache

23. A 33 years old car driver survived in bad car accident y months ago, now for the last two months. He has flashbacks remembering the trauma over and over , with bad dreams , frightening thoughts , feeling tense , having difficulty in sleeping with angry outbursts,most of the time he is avoiding driving. Now he is detached from his friends and family members.what is the most likely diagnosis?

- a. Personality disorder
- b. Acute stress disorder
- c. Panic anxiety disorder
- d. Post Traumatic stress disorder
- e. Depression

24. Serotonin

- a. Helps to regulate circadian rhythms
- b. Is an important regulator of sleep, appetite and libido
- c. Stores are increased by transient stresses and depleted by chronic stress
- d. Permits or facilitates goal- directed motor and consummatory behavior in conjunction with norepinephrine and dopamine
- e. ALL of the above

25. A 20 years old gentlemen with a history of flue like symptoms 2 weeks back from which he is recovered.This morning when he woke up he is feeling weakness in his legs with parenthesis.His serum electrolytes showing potassium of 4.2 mnol/L . What is the most likely diagnosis?

- a. Hypokalemia
- b. Gullian Barre syndrome
- c. Hypomagnesemia
- d. Peripheral Neuropathy
- e. None of the above

26. A 30 years Lady presented with 2 day history of high grade fever, headache and vomiting. Now she is getting drowsy with feeling uneasy while moving her neck and wants to rest in a dark room.she is also feeling uneasy while at being examined at doctor's office in bright light. On investigations she is having TCL count of 15000 with a high CPR . Her CT brain didn't show any pathology. What is the next best investigation to reach the diagnosis?

- a. MRI Brain
- b. Blood culture
- c. Lumber puncture
- d. Serum electrolytes

27. A 21 years old lady came with a 5 day history of high grade fever, severe headache and vomiting. On examination she is confused, and she is unable to tolerate light during examination.She is having neck stiffness with bilateral down going planters. Her investigations show HB of 13gm/dl. Her white cell counts is in 18000 with platelet count of 193000 and negative malarial parasite on blood smear . Her CPR is 150 . RBS is 95mg/dl and her Blood urea is 55 . What is the most likely diagnosis?

- a. Acute Delirium
- b. Febrile fits
- c. Encephalitis
- d. Meningitis
- e. Both a&b

28. 40 years old lady presented with vague symptoms of generalized weakness from the last 6 months and felling tired at the end of the day. She was very active before that and use to do regular exercise . During the night she has also noticed double vision which she attributed to lack of enough sleep. On examination her power is 5/5 in All limbs and neurological examination is unremarkable. She is unable to maintain upward gaze during examination and her limbs feel weak after a brief period of exercise. On investigations she is having HB of 13gm/dl , RBS of 120mg/dl and potassium of 4.5mol/L . What is the most likely diagnosis.

- a. Hypokalemia periodic paralysis
- b. Guillian bare syndrome
- c. Myasthenia gravis
- d. Polymyositis
- e. None of the above

29. A 70 years old man presented with chronic backache which is increasing in severity and he is having sleepless nights due to that . He also complaints of weight loss of around 8kgs in the last e months . He is running low grade fever most of the time. On examination he is bilateral hyperreflexia in the lower limbs with power of 4/5 . Investigations shows HB of 10gm/dl ,ESR of 90 and normal serum calcium plus renal function tests . X-ray thoracic spine shows decreased height of T10 and T11 vertebrae. What is the most likely diagnosis?

- Osteoporotic fracture of spine
- Caries (TB) spine
- Multiple myeloma
- Disc prolapse
- Both a &b

30. 60 years old gentlemen with a 10 years history of diabetes,HTN and Ex - smoker presented with sudden onset weakness of Left side of the body from the last 3 hours . He is unable to talk and is confused. He is having mouth deviation to the right side. He vomited once when he arrived to the hospital. On examination his BP is 200/110 and is having power of 0/5 in the left side of the body with left planter having extensor response. His RBS is 200/110 and CT Brian shows no abnormality. What is the most likely diagnosis.

- Multiple sclerosis
- Intracerebral bleed
- Ischemic CVA
- Hypertensive Encephalopathy

31. A 35 years old gentlemen farmer by profession came with a 1 day history of low low grade fever, severe headache and occasional vomiting. On examination she is well oriented but feels uneasy to light during examination. She is having mild, neck stiffness with bilateral down going planters. Her investigations show HB of 11gm/dl . Her white cell count is in 9000 with platelet count of 253000. His ESR is 50 with a CPR of 45. RBS is 125mg/dl and her

Blood urea is 55. His CT brain showed mildly dilated ventricles . His CSF R.E showed cell count of 150 with predominant lymphocytes.CSF protein is 125mg/dl and CFS sugar of 50mg/dl .What is the most likely diagnosis?

- Hydrocephalus
- Acute bacterial meningitis
- Tuberculosis
- Viral meningitis
- Both a &b

32. 25 years old lady presented with sudden onset backache which is quite severe and she didn't sleep last due to pain. She had flue like symptoms from the last 2 days. She is also complaining of weakness in her lower limbs and she is unable to go to the bathroom by herself. There is no history of trauma or any weight lifting recently. He is running low grade fever today. On examination she is bilateral hyperreflexia in the lower limbs with power of 3/5 and bilateral up going planters. She is having a loss of sensations of all modalities up to the lower chest. Upper limb examination is normal. Investigations show HB of 13.5gm/dl, ESR of 20 . X-ray thoracic and cervical spine is normal. What is the most likely diagnosis?

- Anterior spinal artery occlusion
- Transverse myelitis
- Disc prolapse
- TB spine
- Both a &b

33. A one year old child presented with history of fever ,fits and drowvinessn. On examination child is fibrile and is having bulging anterior fontanelle. Contraindications for lumber puncture in this child Will be.

- Bulging anterior fontanelle
- Generalized tonic clonic seizure
- Shock
- Fever more than 103F
- Nasal regurgitation

PAPER NWSM

1. A 52 year old woman presents to emergency department with sudden severe headache. On examination she has nuchal rigidity and blood pressure of 118/81 mmHg. CSF shows numerous RBCs, no neutrophils, a few mononuclear cells and a normal glucose level. CT imaging shows sub arachnoid hemorrhage at the base of the brain. Which of the following vascular events has most likely occurred in this women?

- Bleeding from cerebral amyloid angiopathy
- Hematoma formation from arteriolosclerosis
- Middle cerebral artery thromboembolism.
- Rupture of an intracranial berry aneurysm
- Tear of subdural bridging vein

2. Three days after visiting his grandson at a summer camp, a 72-year-old man developed fever, headache, confusion, and leg weakness.

Neurological examination 1 day later revealed decreased level of arousal, mild nuchal rigidity, facial weakness, and weakness and areflexia in the left arm and right leg. Bilateral arm tremor with occasional myoclonus was observed. A CT scan of the head without contrast was essentially normal. CSF examination revealed an opening pressure of 200-mm H₂O, 200/mm³ white cells (70% polymorphonuclear), a glucose concentration of 60 mg/dL (CSF-plasma ratio of 0.8), and a protein concentration of 100 mg/dL. Which of the following is the most likely cause of his symptoms?

- Coxsackie B virus
- Epstein-Barr virus
- Herpes Simplex virus 2
- West Nile virus
- Varicella Zoster virus

3. A 14 year old girl presents to the doctor with headache, vomiting and confusion. On lumbar puncture she has increased CSF pressure, elevated protein, increased lymphocytes and normal glucose. What is your most probable diagnosis?

- Bacterial meningitis
- Fungal meningitis
- Immunologic meningitis
- Parasitic meningitis
- Viral meningitis

4. A 60 year male has headache and fits. On investigation, he has supra tentorial tumor in the occipital lobe. Microscopic examination shows sheets of cells having fried egg appearance and contain chicken wire pattern vessels. What is the most likely diagnosis?

- Astrocytoma
- Ependymoma
- Ganglioglioma
- Meningioma
- Oligodendroglioma

5. A 6 years old girl, who is not vaccinated, presented to emergency room with generalized tonic clonic fits. Patient has the history of fever and vomiting for the last 5 days. The grandfather of the patient is suffering from the chronic cough and is taking medication for it for the last 3 months. Emergency treatment was given to the patient. On examination, patient is weak looking with absent BCG scar, Temp of 101 °F and HR: 112/min. There was no rash on the body and no organomegaly. CSF R/E

**showed: Appearance: Straw-coloured
Protein: 150 mg/dL Cell Count: 256 Glucose:
35 mg/dL PMN: 35% Lymphocytes: 65%**

- Bacterial Meningitis
- Viral Encephalitis
- TBM
- Brain Abscess
- GBS

6. Amphetamines cause the release of which of the following neurotransmitter in the brain?

- a. Aspartate
- b. Dopamine
- c. GABA
- d. Glutamate
- e. Serotonin

7. A 6 year old child presents to you with 7 days history of fever, headache and generalized tonic clonic seizures. On examination sick looking child, positive meningeal signs, temperature 102 degree f, chest bilateral crepts, no visceromegaly, CVS S1, S2, 0. His CSF RE shows Sugar 40mg/dl, Protein 100mg/dl, WBC 50/mm³, Neutrophils 70%, lymphocytes 30%. What is the most likely diagnosis?

- a. Pyogenic Meningitis
- b. Tuberculous Meningitis
- c. Viral Meningitis
- d. Epilepsy
- e. Space occupying lesion

8. 65 year old man presents with bradykinesia, tremor at rest and muscular rigidity. Physical examination reveal mask like facies. In this patient, biopsy from the following site is most likely to reveal intracytoplasmic eosinophilic inclusions with in neurons?.

- a. Basal ganglia
- b. Caudate nucleus
- c. Hippocampus
- d. Substantia nigra
- e. Midbrain

9. Following back trauma, a 65 year old woman developed weakness of the right lower (extremity and urinary incontinence. Neurological examination demonstrated pastic monoplegia of the right lower extremity, loss of vibration sense, proprioception in the right side below the T6 level, and loss of pain and temperature sensation on the left side below the T6 level. These findings are suggestive of

- a. Brown-Séquard syndrome
- b. Syringomyelia
- c. Uacute combined degeneration of the cord
- d. Occlusion of the anterior spinal artery
- e. Amyotrophic lateral sclerosis

10. In a neonatal ICU, a house officer performs a spinal tap on a neonate with fever, neck stiffness and drowsiness. She is suspecting meningitis, what is the most probable microorganism involved?

- a. Staph aureus.
- b. Streptococcus
- c. Mycoplasma
- d. Proteus
- e. Vibrio

11. A 7 years old boy, who is fully vaccinated, presented to emergency room with generalized tonic clonic fits. Patient has the history of fever and vomiting for the last two days. Emergency treatment was given. On examination, patient was having 102 *F temp and HR: 112/min. There was no rash on the body and no organomegaly. CSFR/E showed: Count: 250 Glucose: 35 mg/dL PMN: 80%

Appearance: Turbid Protein: 100 mg/dL Cell

Lymphocytes: 20% What is the most likely diagnosis?

- a. Viral Encephalitis
- b. TBM
- c. Brain Abscess
- d. Bacterial Meningitis
- e. Subarachnoid Hemorrhage

12. A 58-year old man has experienced worsening double vision and eyelid dropping, particularly towards the end of the day. He also has had difficulty chewing food and was diagnosed with Sjogren syndrome a decade ago. He had 5/5 motor strength in his extremities that decreases to 4/5 with repetitive movement. Administration of Edrophonium restores muscle strength.

Which of the following laboratory findings is most likely to be reported for this patient?

- a. Acetylcholine receptor antibody positivity
- b. Anti-histidyl tRNA synthetase (Anti-Jo-1) titer 1: 512
- c. Elevated serum creatinine kinase level
- d. Increased serum cortisol level
- e. Peripheral blood eosinophilia

13. A 20 years female diagnosed with Sjögren syndrome presents with fever, fatigue, and weakness. On examination, the patient has periorbital edema, a facial rash, and a rash on her hands (extensor surface). She has proximal muscle weakness with intact reflexes and sensations. What is the most likely diagnosis?

- a. Polymyositis
- b. Inclusion body myositis
- c. Dermatomyositis
- d. Amyloidosis
- e. Immune-mediated necrotizing myopathy

14. A 20 year old man comes to A&E with headache, neck stiffness and photo phobia. On Lumbar puncture, he has elevated CSF pressure, elevated protein, increased number of neutrophils and decreased glucose. What is your most probable diagnosis?

- a. Bacterial meningitis
- b. Fungal meningitis
- c. Immunologic meningitis
- d. Parasitic meningitis
- e. Viral meningitis

15. A 50 year old man who is HIV positive presents with headache and low grade fever for past 2 weeks. On lumbar puncture he has elevated CSF pressure, increased protein, increased lymphocytes and decreased glucose. What is your most probable diagnosis?

- a. Astrocytoma
- b. Fungal meningitis
- c. Malignancy
- d. Tumor
- e. Viral meningitis

16. A 55-year-old man is brought to the emergency room after a near-drowning accident while boating. The patient has no pulse when the paramedics arrive, but he is resuscitated. The patient never regains consciousness and expires 3 days later. Examination of the brain at autopsy reveals a watershed zone of infarction in the left cerebral

hemisphere. Which of the following best describes the pathogenesis of this infarct?

- a. Disseminated intravascular coagulation
- b. Prolonged hypo tension
- c. Saggital sinus thrombosis
- d. Spontaneous cerebral hemorrhage
- e. Thromboembolism

17. 48 years old man presents to the clinic complaining of involuntary movements of his arms and legs. He tells you that his mother had similar symptoms, which progressed to dementia. Physical examination reveal involuntary jerky movements and poor concentration. When an MRI Brain demonstrates atrophy of caudate nucleus and putamen as well as dilatation of ventricles, you fear that patient will likely succumb to dementia as his mother. What is the likely diagnosis:

- a. Alzheimer's Disease
- b. Huntington disease
- c. Parkinson disease
- d. Amylotrophic lateral sclerosis
- e. Multiple myeloma

18. A 20 year old man comes to A & E with high grade fever, neck stiffness and photo phobia. On lumbar puncture, the CSF has increased pressure, neutrophils and decreased glucose. What is the most probable diagnosis?

- a. Bacterial meningitis
- b. Candidial meningitis
- c. Fungal meningitis
- d. Protozoal meningitis
- e. Viral meningitis.

19. A 75 year old woman presents with chronic severe headache, weight loss, anemia, and aching shoulders. Which test should be performed first?

- a. Erythrocyte sedimentation rate (ESR)
- b. Thyroid-stimulating hormone
- c. Liver function tests
- d. Reticulocyte count
- e. MRI brain

20. Microscopic examination of brain tissue taken from autopsy of a patient with clinical diagnosis of Alzheimer's disease reveal central core of amyloid surrounded by collection of neuritic processes? What is the main composition of these amyloid cores?

Amyloid associated peptide derived from

- a. SAA peptide
- b. Amyloid derived from prolactonin
- c. Amyloid derived from trans thyretin
- d. Amyloid derived from immunoglobulin light chains
- e. B-Amyloid derived from amyloid precursor protein

21. A 62-year-old man with a history of poorly controlled hypertension and diabetes presents with sudden onset of weakness. His blood pressure is 200/115 mm Hg, and his pulse is 80 per minute. An X-ray film of the chest demonstrates cardiomegaly and pulmonary edema. A CT scan of the brain reveals intraparenchymal hemorrhage. The patient becomes unresponsive and eventually expires.

Which of the following was the most likely site for cerebral hemorrhage in this patient?

- a. Basal ganglia and thalamic area
- b. Frontal lobe cortex
- c. Medulla
- d. Midbrain
- e. Hippocampus

22. A 30 year old man comes to A & E after meningitis with high grade fever, confusion and altered mental status. On CT scan he has a lesion in one of the cerebral hemispheres.

What is your diagnosis?

- a. Cerebral Abscess
- b. Cerebral Malaria
- c. Granuloma
- d. Tumor
- e. Neoplasm

23. A 54-year-old-woman with a history of splenectomy for thrombotic thrombocytopenic purpura is brought to a local emergency department for lethargy, headache, photophobia, and fever that developed over the course of 6 hours. Examination reveals decreased level of arousal, nuchal rigidity,

and petechiae in the trunk, conjunctiva, and palate. Which of the following is the most likely cause of these manifestations?

- a. Coxsackievirus
- b. Staph aureus
- c. Listeria
- d. Neisseria meningitidis
- e. Proteus

24. A 60 year old woman presents with walking difficulty especially downstairs and standing from sitting position for last 03 months. On examination, she has quadriceps weakness and asymmetric atrophy of her wrist and finger flexors with intact sensations. What is the most likely diagnosis?

- a. Polymyositis
- b. Inclusion body myositis
- c. Dermatomyositis
- d. Amyloidosis
- e. Immune-mediated necrotizing myopathy

25. A 60 year old woman presents with walking difficulty especially downstairs and standing from sitting position for last 03 months. On examination, she has quadriceps weakness and asymmetric atrophy of her wrist and finger flexors with intact sensations. What is the most likely diagnosis?

- a. Polymyositis
- b. Inclusion body myositis
- c. Dermatomyositis
- d. Amyloidosis
- e. Immune-mediated necrotizing myopathy

26. A 26 year old morbid obese woman presents with generalized persistent headache, transient blurry vision and pulsatile tinnitus. Neurological examination is all normal except for bilateral restricted horizontal eye movements and blurred disc margins. CT and MRI brain done and normal. Which of the following diagnoses should be suspected?

- a. Intracranial hypertension

- b. Migraine
- c. Tension headache
- d. Venous sinus thrombosis
- e. Intracranial hypotension

27. A 27 year old man presented to neurology OPD with history of headaches for the past 3 months. Over a 2 week period he has 4 generalized seizures. On physical examination no papilledema or movement disorder is noted. CT scan of the head shows a 2.5 cm mass in the left frontal lobe. Biopsy of the lesion shows a conglomerate of various sized tortuous vessels surrounded by gliosis. What is the most likely diagnosis?

- a. Angiosarcoma
- b. Arteriovenous malformation
- c. Multiple sclerosis plaque
- d. Organizing abscess
- e. Rupture saccular aneurysm

28. A 30 year old male has developed vertigo. MRI shows a tumor at cerebello-pontine angle. The patient is operated and microscopy of tumor reveal a benign spindle cell lesion containing Antoni A and Antoni B areas. Which of the following gene is affected in this tumor?

- a. EGFR b. NF1 c. PTEN
- d. P16 e. P53

29. A 44 year old man developed sudden onset of back pain, followed by flaccid areflexic paraplegia with urinary incontinence. Neurological examination showed loss of sensation to pain and temperature at the T4 level with preservation of vibration and proprioception. These findings are suggestive of

- a. Syringomyelia
- b. Subacute combined degeneration of the cord
- c. Occlusion of the anterior spinal artery
- d. Amyotrophic lateral sclerosis
- e. Tabes dorsalis

30. A 26 year old man presents with a headache that worsens when he stands. He also complains of nausea and photophobia. On examination he is afebrile and his blood pressure is normal. Fundoscopic examination is also normal but does have mild neck stiffness. MRI shows diffuse pachymeningeal enhancement. What is the diagnosis?

- a. Intracranial hypotension
- b. Subarachnoid hemorrhage
- c. Viral meningitis
- d. Migraine
- e. Venous sinus thrombosis

KGMC PAPER

1. A 35 years old female with headache blurred vision since a week she was referred to neurosurgeon who resect a well circumscribed mass which was attached to dura what is most probable diagnosis

- a. Glioblastoma b. Meningioma
- c. Astrocytoma d. Ependioma
- e. Metastatic tumor

2. A male of age 30 years old presented to opd with severe headache for last 5 days ,his pb was 185/95,investigation were done the most common cause of his disease :

- a. Glioblastoma
- b. Rupture of Berry aneurysm
- c. Astrocytoma

3. Antibodies to Acetylcholine receptors occurs in

- a. Multiple sclerosis b. Myasthenia gravis
- c. Oligodendroglioma d. Berry aneurysm
- e. Retinoblastoma

4. Most common acute inflammatory demyelinating diseases is ,

- a. Multiple sclerosis
- b. Progressive Multiple leukodystrophy
- c. GBS d. Neurosyphilis

5. According to WHO classification grade 1 tumor is :

- a. Usually have diffuse proliferative potential but probability of low recurrent rate, sometimes may progress to high rate
- b. Mostly known as anaplastic tumor and has malignant histology, high recurrence rate and usually need chemotherapy and radiotherapy
- c. Necrotic, high recurrence and widespread in the body
- d. None of the above
- e. Have low proliferative potential and is able to cure with surgical resection.

6. Intra axial means :

- a. Within spinal cord
- b. Within spinal cord and brain
- c. Above temporal membrane
- d. Below temporal membrane
- e. None of the above

7. Most malignant tumor of the following is

- a. Glioblastoma
- b. Gemistocytic astrocytoma
- c. Anaplastic astrocytoma
- d. Pilocytic
- e. None

8. Pilocytic astrocytomas are differentiated from other types by :

- a. Most malignant of all
- b. Occurs in old age
- c. Relatively benign
- d. Occurs in old age
- e. Necrosis

9. A newborn infant is brought to with fever and neck rigidity!!! Penicillin is suspecting septing meningitis!! Which organism is the likely cause!!!

- a. Staphylococcus aureus
- b. E.coli
- c. Meningococcus
- d. Streptococcus
- e. Fungi

10. Myasthenia Gravis is chronic autoimmune disorder in which antibodies destroy the connection between

- a. Nerve and axon
- b. Nerve and bone
- c. Nerve and muscle
- d. Oligodendrocytes and astrocytes
- e. Schwann cells and astrocytes

11. A young male presented with the acute onset of headache, which he described as the worst headache ever. Considering it be the sub-arachnoid haemorrhage. The most frequent cause of clinically significant sub-arachnoid haemorrhage is rupture of a :

- a. Atherosclerotic aneurysm
- b. Mycotic aneurysm
- c. Traumatic aneurysm
- d. Dissecting aneurysm
- e. Berry aneurysm

12. The major underlying etiology of cerebrovascular disease is ...

- a. Neoplasm
- b. Vasculitis
- c. Aneurysm
- d. Vascular malformation

13. Haemorrhage within brain parenchyma and subarachnoid spaces are more often a manifestation of

- A. transit vascular obstruction
- B. Head injury
- C. Cerebrovascular disease
- D. Aneurysm
- e. Bleeding disorder

14. Which one is the most common source of cerebral embolus

- a. Cardiac mural thrombi
- b. Myocardial infarction
- c. Ventricular heart disease
- d. Atrial fibrillation
- e. Paradoxical embolus

15. The size, location, shape of infarct and the extent of tissue damage that results is determined by :

- a. Penetrating vessels

- b. Adequacy of collateral flow
- c. Extent of obstruction
- d. Time of evolution of obstruction
- e. Associated systemic disease

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- a. Penetrating vessels
- b. Adequacy of collateral flow
- c. Extent of obstruction
- d. Time of evolution of obstruction
- e. Associated systemic disease

17. The most common site of primary thrombosis causing cerebral infraction is

- a. Middle cerebral artery
- b. Basillar artery
- c. Cavernous sinus
- d. Carotid artery bifercation
- e. Anterior cerebral artery

18. Which one of following is suitable for viral meningitis

- a. High protein
- b. Low glucose
- c. Normal glucose
- d. Low protein

19. 1p and 19 deletion favours

- a. Ependioma
- b. Meningioma
- c. Oligodendroglioma
- d. Medulloblastoma
- e. Astrocytoma

20. Rosette formation is characteristic of;

- a. Neuroblastoma
- b. Thecoma
- c. Lymphosarcoma
- d. Ganglioneuroma
- e. Meningioma

21. Astrocytoma origin of the most common type of brain tumor is of which origin

- a. Glial
- b. Meningial
- c. Vascular
- d. Osseus

22. At neuromusculr junction, motor neuron passes action potential to the muscle spindle fibre. The ion responsible for the release of ach from the shnaptic vesicle is

- A. Calcium
- B. Nadium
- C. Potassium
- D. Chloride

23. In cranial hemorrhage which is always traumatic is

- a. Subarchanoid hemorrhage
- b. Epidural hemorrhage
- c. Subdural hemorrhage
- d. Subarchanoid hemorrhage

24. On autopsy examiner found multiple cyst in brain and label as parencephalic cyst on basis of containing

- a. Blood
- b. CSF
- c. Hair
- d. Tooth
- e. Blood

25. most common intra-cranial haemorrhage is

- a. apoplexy
- b. epidural hematoma
- c. Intra-cereberal heamorrhage
- d. Sub-aeachnoid heamorrhage
- e. Sub-dural hematoma

26. Subdural hematoma is commonly due to rupture of

- a. Bringing veins
- b. Cortical Artery
- c. Diploic vein
- d. Emissary vein
- e. Middle meningeal artery

27. Known cause of sudden unexplained death in alcoholics is:

- a. Acute epidural hemorrhage
- b. Acute subdural hematoma
- c. Chronic subdural hematoma
- d. Subacute subdural hematoma
- e. Subarachnoed hemorrhage

28. the stage of malignant cancer is recorded using symbol 0,1,2,3,4 using which scale

- a. Alphanumeric
- b. Numeric
- c. Nominal
- d. Ordinal

29. A 56 years old man was brought to ER with 3 days history of weakness on left side of the body along with the slurred speech. He is a case of HTN and taking amlodipinr 5 mg once daily but not regularly.

His blood pressure is 160/95 with pulse rate of 98/mint. He is mentslly oriented in time and place.

What is the diagnosis

- a. MS
- b. Motor neuron disease
- c. Ischemic stroke
- d. HTN encephalopathy
- E. Viral encephalitis

30. A 12 year boy presented to the ER with episodic loss of conciousness preceeding with irregular jerky moment of the limbs and head. He had such episodes by 4 or 5 times in the last mnth. On examination he is well oriented in time and space and no motor or sensory neurological deficit currently. Which one of the following the most app investegation to make a diagnosis

- a. EEG
- b. CSF analysis
- c. serum prolactin level
- d. CT brain
- e. MRI brain

31. 45 years old lady presented with 3 days history of weakness of both lower limbs after 2 days . She has no previous history of hypertension and diabetes. 5 days back she had episode of diahrea resolve with treatment from local dr. Clinical examination shows flaccid paralysis of lower limbs with 1/5 power of lower limb and 2/5 power in upper limb. Planter are bilaterally going down. What is the diagnosis?

- a. Poliomyelitis
- b. Familial periodic paralysis

- c. Acute hypokalimea due to GI loss
- d. GB syndrome
- e. MS

32. 25 yrs old had bike accident 2 days ago presented with one day history of weakness of both lower

limbs. Clinical examination shows bilateral up going plantar and sensory level up to umblicus

Which is most likely area of spinal cord injury

- a. Upper dorsal spine
- b. Lower dorsal spine
- c. Upper lumbar spine
- d. Lower lumbar spine
- e. Cauda equine

33. 15 yr old having headache low grade fever for two days ,2 days hx of seeing obj double examination he is having binocular diplopia . Tge diplopia increases with looking horizontally towards right while almost finished on looking left . Cranial netve abnormality is

- a. left 3rd nerve
- b. left 6 nerve
- c. right 3rd nerve
- d. righr 6 nerve
- e. right 4th Nerve

34. A 20 year old man presents with inability to hold his right hand straight due to an intramuscular injection in this side arm. Clinically he has right wrist drop. Which of the following explains his condition?

- a. Ulnar nerve injury
- b. Median nerve injury
- c. Radial nerve injury
- d. Extensor digitorum brevis injury
- e. Extensor digitorum longus injury

35. A 53 year old female with known rheumatoid arthritis has numbness and tingling sensation in her lateral three fingers of right hand.there is sharp burning pain extending from right hand to right arm.

diagnose the case.

- Ulnar nerve entrapment
- Median nerve entrapment
- Radial nerve entrapment
- Tenosynovitis
- Wrist joint subluxation

36. A 45 years old diabetic patient presented with severe cramping pain and burning of feet mostly at night. He has loss of tactile sensations symmetrically in the lower limbs upto middle of his leg. What is the most likely cause of his current illness;

- Diabetic polyneuropathy
- Diabetic autonomic neuropathy
- Diabetic mononeuropathy multiplex
- Vit-D deficiency
- Diabetic amyotrophy

37. 83 years old male has episodic history of irrelevant talking and incontinence of urine for the last 3 years. Which one of the following is the most likely diagnosis

- Recurrent encephalitis
- Parkinsons disease
- MS
- Dementia
- Delirium

38. A 35 yr old lady presented with complaints of severe burning sensation while having a shower of warm waters. She is receiving steroid for some disease from neurologist for the last 1 yr. What is the most likely disease that she is receiving treatment for

- Tuberculous meningitis
- Acute demyelinating encephalomyelitis
- MS
- Thiamine def
- Vit b 12 def

39. Miss XYZ, a 26 yrs old banker was diagnose of a case schizophrenia, she was started on 10 mg haloperidol. A week after treatment she developed body rigidity , fever and confusion. She was also

irritable and her bp and body temp kept fluctuating.

Probable diagnosis?

- Meningitis
- Serotonin syndrome
- Accute dystonia
- Anti-psychotics discontinuation syndrome
- Neuroleptic malignant syndrome

40. A previously healthy 4 year old present to emergency department with nausea and vomiting for 2 hour with waddling gait and nystagmus there are other sick contact at home. He has no meningeal signs.

What important question you will ask in history.

- Birth asphaxia
- Consanguinity history
- Drug history
- Maternal uncle's history
- Seizure disorder

41. A 12 yr old presented to ER with high fever 102.2F and severe headach. Lumbar puncture(LP .is performed and your suspicion of septic meningitis is confirmed. What is the most likely CSF findings that occur in 48hrs of meningitis??

- 50 WBC , 70% monocytes
- 50 WBC , 8000 RBCs
- 100 WBC, 90% eosinophils
- 150WBC, 80%lymphocytes
- 5000WBC, 90%polymorph nuclear cells

42. A four year old child unvaccinated presented in children OLD with complaints for fever , headache and vomiting for the last four weeks. On examination child is drowsy, emaciation and wasting

- Aseptic meningitis
- Brain abscess
- Cerebral malaria
- Septic meningitis
- Tuberculous meningitis

43. A one yr old child has excessive crying with fever and fits. On examination he has fontanelle bulging and brisk reflexes. What procedure should be used for confirmation of the case

- a. Fundoscopy
- b. Lumbar puncture
- c. CT brain
- d. MRI brain

44. A 2 years child is a diagnosed case of cerebral palsy. He has ataxic gait. How will you classify the ataxia?

- a. Acute ataxia
- b. Chronic progressive ataxia
- c. Chronic non progressive ataxia
- d. Intermittent ataxia
- e. Paroxysmal ataxia

45. Which clinical risk factor is considered to hold highest positive correlate for postoperative cardiac complications?

- a. Age > 70
- b. Aortic stenosis
- c. Arrhythmia other than sinus
- d. Emergency surgery
- e. Signs of heart failure: jugular venous distension & ventricular gallop

KMC 2023

1. A 35 years old male patient died from bacterial meningitis. Which of the following is a relevant microscopic feature after post mortem examination of his brain?

- a. Cowdry bodies
- b. Negri bodies
- c. Lewy bodies
- d. Nissl substance
- e. Neuropil

2. A 40 years old male patient is suffering from rabies after dog bite one month back. He has difficulty in thinking, water and dyspnea. What pathological changes would you expect in the basal ganglia of this patient?

- a. Cowdry bodies
- b. Negri bodies
- c. Lewy bodies
- d. Nissl substance
- e. Vesicular nuclei

3. A 65 years old lady is suffering from Alzheimer disease and is receiving treatment for the last 5 years. Which one of the following is the pathological hallmark in this case?

- a. Axonal reaction
- b. Gliosis
- c. Plaques
- d. Neurofibrillary tangles
- e. Red neuron

4. A newborn baby is suffering from fever, vomiting and meningeal irritation. CSF examination shows increase in proteins and decrease in sugar level. Gram staining reveals pink rods. Which one of the following is the cause of this condition?

- a. Aspergillosis
- b. Hemophilus influenza
- c. Coli
- d. Neisseria meningitidis
- e. Streptococcus

5. A 10 years old child presented to medical OPD with symptoms of morning headaches, nausea, vomiting revealed a posterior fossa tumor. What is the most probable and altered mental status. CT scan pathological diagnosis?

- a. Glioma
- b. Astrocytoma
- c. Medulloblastoma
- d. Meningioma
- e. Glioblastoma multiforme

6. A young lady is suffering from left cerebral hemisphere tumor on CT scan examination. The tumor is dural based and shifting of the ventricle to one side. Which one is the most relevant diagnosis?

- a. Meningioma
- b. Neurofibromatosis
- c. Primary germ cell tumor
- d. Tuberous sclerosis
- e. Von-Hippel Lindau disease

7. On histological examination of a tumor which was identified on MRI as of ventricular origin, the wall of third ventricular cyst consisted of a single layer of

mucin producing ciliated columnar epithelium.

Which of the following is the most likely diagnosis?

- a. Dermoid cyst
- b. Ependymal cyst
- c. Colloid cyst
- d. Craniopharyngioma
- e. Cysticercosis

8. Spinal cord injuries can result from damage to vertebrae, ligaments or disks of the spinal cord itself. What is the most important histological indicator of CNS injury?

- a. Corpora amylacea
- b. Glia
- c. Lafora bodies
- d. Microglia
- e. Rosenthal fibers

9. An unconscious 30 years male patient was brought to emergency with history of fall. Hematoma diagnosed on CT Brain. Which type of hematoma has a rapid rise in intracranial pressure within minutes.

- a. Epidural
- b. Frontal
- c. Subdural
- d. Subarachnoid
- e. Temporal

10. A 35 years lady is suffering from space occupying lesion in the brain. On CT scan examination the tumor in the right cerebral hemisphere. The Histopathology reported this case as pilocytic astrocytoma. Which of the following microscopic features are diagnostic of this condition?

- a. Cowdry Bodies
- b. Negri bodies
- c. Neurofibrillary
- d. Neuronal plaques
- e. Rosenthal fibers

11. A 25 years male patient is suffering from head injury and skull fracture. The following microscopic are predictable within 24 hours of head injury except?

- a. Disappearance of the nucleus
- b. Eosinophilia of the cytoplasm
- c. Neurofibrillary
- d. Pyknosis of the nucleus
- e. Shrinkage of the cell body

12. A 10 years old child is suffering from fever, headache, vomiting and neck rigidity. On physical CSF is purulent. Laboratory report shows increase protein and decrease sugar. Which one of the following is the causative organism?

- a. Escherichia coli
- b. Hemophilus influenza
- c. Neisseria Meningitidis
- d. Streptococcus pneumonia
- e. Streptococcus aureus

13. A 65 years old male patient is suffering from acute pyogenic meningitis. Which of the following is not the predisposing conditions?

- a. Cloudy/purulent CSF
- b. Increased intracranial pressure
- c. Neutrophils count 90,000/mm
- d. Proteins 700mg/dl
- e. Smear shows no bacteria on gram staining

14. CT scan findings of a 12 years old child show brain abscess. Which of the following is not the predisposing conditions?

- a. Anatomic anomalies
- b. Blood dyscrasias
- c. Neurosurgery
- d. Penetrating cranial trauma
- e. Pyogenic extra neural infections

15. A 6 months old baby was brought to neurosurgeon with symptoms of irritability, sleeplessness and vomiting. Baby's head was irregularly large. MR revealed a tumor near fourth ventricle. Post surgery histology revealed well-circumscribed cellular neoplasm with sheet-like growth pattern. The tumor cells were frequently arranged around blood vessels creating perivascular pseudorosettes. Which tumor do you suspect in this case?

- a. Choroid plexus carcinoma
- b. Craniopharyngioma
- c. Ependymoma
- d. Glioma
- e. Pine blastoma

16. Astrocytes are star-shaped cells with multipolar branching cytoplasmic processes. They have the following functions except?

- a. Controlling the flow of macro molecules between blood CFS and brain
- b. Demyelination of the neurons
- c. Helps in blood brain barrier functions
- d. In gliosis the nuclei of astrocytes become enlarge, vesicular and develop prominent nucleoli
- e. Metabolic buffer and detoxifier

17. A malignant brain tumor is a fast-growing cancer that spreads to other areas of the brain and Spine. Which of the following is the most common malignant childhood brain tumor?

- a. Astrocytoma
- b. Medulloblastoma
- c. Meningioma
- d. Schwannoma
- e. Squamous cell carcinoma

18. A 30 years female patient was brought to neurology OPD with chief complaints of numbness and tingling in her limbs and problems with thinking, learning and planning. She also complained of blurred vision and vertigo. A probable diagnosis of multiple sclerosis was made. What is the main pathological finding in such condition?

- a. Lewy bodies
- b. Loss of dopaminergic neurons
- c. Loss of neurons in caudate nucleus
- d. Negri bodies
- e. Plaques

19. Astrocytomas are the most common type of brain tumors in both adults and children. They originate from astrocytes. The Daarnasduport system identifies 4 grades based on nuclear atypia. What is the name for grade 4 astrocytoma?

- a. Anaplastic astrocytoma
- b. Fibrillary astrocytoma
- c. Glioblastoma multiforme
- d. Pilocytic astrocytoma

20. A known chronic alcoholic patient has come to you in ER in a Confused state with no remembrance of his belongings etc. He is unaware of his wellbeing and is very weak due to nutritional deficiencies. what type of disorder is this?

- a. Alzheimer disease
- b. Dementia disease
- c. Korsakoff's psychosis
- d. Organic psychosis
- e. Senile dementia

21. A 23-years-old female was brought by her brother to medical emergency with lower limbs weakness for last 3 days. She had also pain and numbness in lower limbs. She was also complaining of retention of urine for last 1 day. She gave no history of fever or any other illness in past 1 month. Her upper limbs were completely normal, Clinical examination showed signs of upper motor neuron lesion in lower limbs and sensory level at T4. What is the most probable diagnosis?

- a. Guillen Barre syndrome
- b. Multiple sclerosis
- c. Poliomyelitis
- d. Pott's disease
- e. Transverse myelitis

22. A 40-years-old female presented with one year history of "on and off blurring of vision on hot summer days. Now she is complaining of pins and needle sensations in the right hand and weakness of the left leg for the past 03 days, What is the most likely diagnosis?

- a. Ischemic stroke
- b. Multiple sclerosis
- c. Pituitary tumor
- d. Transverse myelitis
- e. Cervical cord myelopathy

23. Ataxia is due to dysfunction of the:

- a. Cerebellum only
- b. Cerebellum and its sensory pathways in the posterior columns of the spinal cord or a combination of these.
- c. Cerebral cortex and its sensory pathways in the posterior columns of the spinal cord or a combination of these.
- d. Sensory pathways in the posterior columns of the spinal cord
- e. Cerebellum cerebral cortex and its sensory pathways in the posterior columns of the spinal cord, or a combination of these.

24. A 3 year old male child is seen in the OPD with history of repeated infections and failure to thrive. On examination he is underweight, febrile with unsteady gait. His eye examination reveals reddish spots over the sclera. His elder brother died at the age of 8 years due to repeated infections. The most likely diagnosis is?

- a. Acute cerebellar ataxia
- b. Acute cerebellitis
- c. Ataxia telangiectasia
- d. Cerebellar tumor
- e. Friedreich ataxia

2. PHARMACOLOGY**PAPER WMC**

1. Benzodiazepine are thought to cause sedative and anxiolytic effects by:

- a. Acting as a partial agonist at 5HT receptors
- b. Blocking the NMDA glutamate receptor subtypes
- c. Enhancing the action of dopamine receptors
- d. Facilitating GABA mediated increase in chloride conductance
- e. Increasing functional activity at GABA_A receptors

2. A patient with decreased cardiopulmonary reserve goes into cardiac arrest due to hypoxia experienced minutes after a surgery. Which one of the following anesthetics was he most likely administered?

- a. Desflurane
- b. Enflurane
- c. Halothane
- d. Isoflurane
- e. Nitrous Oxide

3. A patient is given an intravenous general anesthetic. However it causes increased heart rate and increase in blood pressure during the surgery. Which one of the following drugs is responsible for this complication?

- a. Etomidate
- b. Ketamine
- c. Midazolam
- d. Propofol
- e. Thiopentone

4. A 48 years old patient has episodes of sudden repeated bursts of excruciating pain lasting a few seconds involving the upper part of the left side of his face. Which of the following drugs is a drug of choice for the above condition?

- a. Acetyl salicylic acid
- b. Carbamazepine
- c. Imipramine
- d. Phenytoin
- e. Valproic acid

5. EMLA (Eutetic Mixture of Local Anesthetics) is a mixture of Lignocaine and which of the following local anesthetics that penetrates the keratinised layer of the skin and is used in pediatric patients?

- a. Benzocaine
- b. Bupivacaine
- c. Chloroprocaine
- d. Prilocaine
- e. Ropivacaine

6. A chronic alcoholic is brought to the emergency with signs and symptoms of ataxia, confusion, nystagmus and paralysis of extraocular muscles. Considering his symptoms which one of the following drugs should be administered immediately besides a sedative hypnotic drug?

- a. Flumazenil.
- b. Folic Acid
- c. Naloxone
- d. Pyridoxine
- e. Thiamine

7. A 21 years old boy taking some drug of abuse is having hyperphagia, seems happy and laughs a lot. His eyes are often red and he mostly suffers from tachycardia. He has indifferent approach to the ongoing events in his life. Which of the following drugs he is most likely taking?

- a. Cannabis
- b. Cocaine
- c. Ethanol
- d. LSD
- e. Nicotine

8. A patient with Parkinsonism on medication is having off periods of akinesia. Which one of the following drugs given as a subcutaneous injection will most likely provide temporary relief of these off periods in this patient?

- a. Amantadine
- b. Apomorphine
- c. Bromocriptine
- d. Selegiline
- e. Tolcapone

9. A 53 years old patient with glaucoma, BPH and cardiovascular disease is suffering from major depression. Which one of the following drugs should be avoided in this patient?

- a. Amitriptyline.
- b. Fluoxetine
- c. Mirtazepine
- d. Trazodone
- e. Venlafaxine

10. Which one of the following MAO inhibitors is a reversible, selective MAO A Inhibitor and is least likely to need dietary restrictions with its use?

- a. Isocarboxazid
- b. Moclobemide
- c. Phenzelzine
- d. Selegiline
- e. Tranylcypramine

11. Which one of the following neurolept has been shown to be a partial agonist at the D2 receptors?

- a. Aripiprazole
- b. Clozapine
- c. Haloperidol
- d. Risperidone
- e. Thioridazine

12. Which one of the following actions of chlorpromazine is not based on its antidopaminergic property?

- a. Antipsychotic
- b. Antiemetic
- c. Dystonias
- d. Hyperprolactemic
- e. Hypotensive

13. Which one of the following is a major limitation in the use of Clozapine for the treatment of schizophrenia?

- a. High incidence of extra pyramidal side effects
- b. Incidence of postural hypotension
- c. Its inability to benefit negative symptoms of schizophrenia
- d. Its potential to cause agranulocytosis
- e. Production of hyperprolactenemia

14. A 27 years old man comes to the OPD with complaints of numbness and tingling in his fingers and toes. The patient had been taking a drug for one month to abort migraine headaches. Which one of the following drugs most likely caused the symptoms in this patient?

- a. Amitriptyline
- b. Ergotamine
- c. Propranolol
- d. Sumatriptan
- e. Valproic Acid

15. Which one of the following adverse effects is most likely to be produced in a patient on prolonged lithium therapy?

- a. Diabetes mellitus
- b. Goiter
- c. Gout
- d. Parkinsonism
- e. Tardive Dyskinesia

16. Which one of the following drugs is effective in the treatment of Bulimia nervosa?

- a. Carbamazepine
- b. Diazepam
- c. Haloperidol
- d. Lithium
- e. Paroxetine

17. Carbidopa is added to the treatment regimen in a person already taking Levodopa for parkinson's disease. Which of the following effects will least likely be minimized by the addition of Carbidopa?

- a. Arrhythmias
- b. Interaction with Pyridoxine
- c. Involuntary movements
- d. Nausea and vomiting
- e. Postural Hypotension

18. Which one of the following molecular actions most likely mediates the analgesic effect of morphine?

- a. Closing of Clion channels on postsynaptic neurons
- b. Closing of Na ion channels on presynaptic nerve terminals
- c. Opening of Ca channels on presynaptic nerve terminals
- d. Opening of K channels on postsynaptic neurons
- e. Stimulation of substance P release from nociceptive nerve terminals

19. A patient known to be a heroin abuser is brought to emergency after suffering from a severe roadside accident. The house officer administers nalbuphine to him for the pain, Why administration of nalbuphine to this patient not considered a good choice?

- a. Nalbuphine is a strong u receptor agonist
- b. Nalbuphine is a weaker analgesic than morphine
- c. Nalbuphine may precipitate a withdrawal state
- d. The patient is probably cross tolerant to nalbuphine
- e. Vasodilating effects of nalbuphine may increase blood loss

20. Which one of the following intravenous anesthetic agents possesses anti emetic properties?

- a. Diazepam
- b. Etomidate
- c. Ketamine
- d. Propofol
- e. Thiopentone sodium

21. Which of the following drugs causes dissociative anesthesia

- a. Diazepam
- b. Propofol
- c. Ketamine
- d. Midazolam
- e. Bupivacaine

22. What mixture of gases is used in anesthesia?

- a. O2 and CO2
- b. O2 , CO2, N2O
- c. O2 and N2O
- d. CO2 and N2O
- e. Room Air and N2O

GMC 2023

1. Epidural anesthesia is preferred to spinal anesthesia because

- a. Hypotension is absent
- b. Dura is not penetrated
- c. Low dose of anesthesia is used
- d. Level of blood logically changed
- e. Easy to perform

2. Post spinal headache is prevented by.

- a. Use of thinner needles
- b. NSAIDS
- c. Preanesthetic medication
- d. Plenty of oral fluids
- e. Pre-op leading

3. The most common complication of spinal anesthesia is

- a. Post spinal headache
- b. Hypotension
- c. Meningitie
- d. Arrhythmias
- e. Nausea and Vomiting

4. 18 years old boy was brought to emergency department with a history of loss of consciousness and generalized tonic clonic fits from the last 1 hour. He has r episodes of fits in the last 1 hour lasting 5 to 6 mins.He is having blood in his mouth and had incontinence. His RBS is 105 m/dl and serum sodium

of 138mmol/l . He again developed fits which in emergency which were not resolving. After securing his airway and checking his vitals what is the choice of medication in the management of this patient in emergency situation.

- IV Lorazepam
- IV Diazepam
- IV sodium Valproate
- IV Levetiracetam
- None of the above

5. CFS culture growth shows if influenzae type b as the causative organism. The best prophylaxis regimen for house hold contacts is.

- Rifampicin 20mg/kg/day for 4 days
- Rifampicin 10mg/kg/day for 10 days
- Trimethoprim is the drug of choice for prophylaxis
- 1st do the bacteriological conformation of contract
- vaccine is the only effective way of prophylaxis

6. A 26 -year-old Female had frequent episodes of focal left hand shaking followed by generalized tonic clonic seizure. She broke her jaw and her right shoulder due to fall , routine ECG is normal and brain imaging is unremarkable. Which would be the most appropriate drug for this patient?

- Lamotrigine
- Oxcarbazepine
- Phenobarbital
- Topiramate
- Valproate

7. A patient is experiencing insomnia and their doctor prescribes a hypotonic drug to help them sleep. What is the mechanism of action of hypnotic drugs?

- Activate the serotonin receptor
- Block the action of histamine
- Increase the production of melatonin
- Inhibit the release of acetylcholine
- Stimulate the GABA receptor

8. A patient has been taking a hypotonic drug for a few weeks to help with their insomnia. They are concerned about becoming dependent on the drug. Which of the following is a potential risk of long term use of hypnotic drugs?

- Decreased heart rate
- Increased risk of seizure
- Liver damage
- Respiratory depression
- Tolerance and dependence

9. Which of the following is a commonly prescribed atypical antipsychotic medication for the treatment of schizophrenia?

- Clonazepam
- Diazepam
- Phenobarbital
- Risperidone
- Zolpidem

10. A patient has been prescribed a hypotonic drug to help with their insomnia, but they have a history of alcohol abuse. All of the following are potential risk of combining hypnotic drugs with alcohol except one?

- Decreased sedation
- Impaired coordination
- Increased sedation
- Memory impairment
- Respiratory depression

11. What is the primary mechanism of action for most anti Parkinson drugs?

- Blocking dopamine receptors
- Enhancing dopamine release
- Inhibiting dopamine reuptake
- Increasing dopamine degradation
- None of the above

12. Which of the following anti Parkinson drugs is a dopamine agonist?

- Amantadine
- Carbidopa
- Levodopa
- Selegiline
- Pramipexole

13. Which of the following is not anti Parkinson drug?

- a. Apomorphine
- b. Bromocriptine
- c. Donepezil
- d. Entacapone
- e. Ropinirole

14. Which anti Parkinson drug is a COMT inhibitor?

- a. Amantadine
- b. Levodopa
- c. Pramipexole
- d. Selegiline
- e. Tolcapone

15. Which of the following drugs is not commonly used for the treatment of Parkinson?

- a. Carbidopa
- b. Donepezil
- c. Entacapone
- d. Levodopa
- e. Pramipexole

16. Which of the following drugs is a dopamine agonist and used for the treatment of Parkinson disease?

- a. Carbidopa
- b. Donepezil
- c. Entacapone
- d. Levodopa
- e. Pramipexole

17. A 30 years old male patient, using warfarin, is presented to OPD with increase bleeding tendency. On inquiring he also uses antifungal drug regularly. What is that antifungal drug which causes enzyme inhibition of warfarin?

- a. Nystatin
- b. Amphotericin
- c. Ketoconazole
- d. Tetracycline
- e. Micronazole

18. Analgesia, euphoria, respiratory depression associated with morphine are probably mediated mainly through this opioid receptor type.

- a. Kappa
- b. Delta
- c. Mu
- d. a & b
- e. both b & c

19. A young woman recently diagnosed as schizophrenic developed severe muscle spasm with torticollis, shortly after therapy with haloperidol. The best treatment for muscle spasms will be.

- a. Add risperidone with haloperidol
- b. Discontinue haloperidol
- c. Oral diphenhydramine
- d. Oral lithium
- e. Inject benztropine

20. A 25 years old woman recently diagnosed as bipolar disorder and on medication presents with 5 weeks pregnancy. Which of the following drug is safe and effective to be used in pregnancy?

- a. Carbamazepine
- b. Fluphenazine
- c. Lithium
- d. Olanzapine
- e. Valproic acid

21. A 34 years old man was prescribed citalopram for depression but he stop taking it. The reason for discontinuation he told was its effect on his sexual performance. What will be the best choice of drug for this patient?

- a. Amitriptyline
- b. Bupropion
- c. Fluoxetine
- d. Imipramine
- e. Venlafaxine

22. A 50 year old with history of alcoholism is brought to ER department in confused and delirious state. He has truncal ataxia and ophthalmoplegia. The most appropriate immediate treatment is

- a. Chlordiazepoxide
- b. Disulfiram
- c. Folic acid
- d. Glucosamine
- e. Thiamine

23. A 30 years old patient with history of pulmonary disease with essential tremors. Which drug is most suitable for the treatment?

- a. Diazepam
- b. Levodopa
- c. Metoprolol
- d. Propranolol
- e. Terbutaline

24. A 22 year young girl present with amenorrhea and galactorrhea,her prolactin levels are grossly high . What will be the drug mostly used in her treatment?

- a. Bromocriptine
- b. Haloperidol
- c. Ketanserine
- d. LSD
- e. Terbutaline

NWSM 2023

1. A 58-year-old man was admitted to the hospital for a laparoscopic hernia repair.General anesthesia was induced by intravenous diazepam, and the patient lost consciousness in about 1 minute. He regained consciousness about 35 minutes later. Knowing that the half-life of diazepam is about 40 hours, which of the following items best explains the short action of the drug?

- a. Biotransformation of the drug into inactive metabolites
- b. Development of a rapid tolerance to drug effects
- c. Rapid excretion of the drug by the kidneys
- d. Rapid metabolism of the drug within the central nervous system
- e. Redistribution of the drug from central

2. A 26-year-old woman discovered she was unexpectedly pregnant. She had been regularly taking an oral contraceptive medication for several years. Two months earlier, she was diagnosed with complex partial seizures and started the prescribed therapy. Which of the following drugs was she most likely taking?

- a. Carbamazepine
- b. Clonazepam
- c. Gabapentin
- d. Lamotrigine
- e. Valproic Acid

3. A 47-year-old woman complained to her physician of blurred and double vision. She had been suffering from a central nervous system disorder and had been receiving a drug treatment for 6 months. Physical examination showed mild hirsutism, broadening of her lips and nose, and thickening and

bleeding of her gums. Which of the following drugs most likely caused these adverse effects?

- a. Fluoxetine
- b. Gabapentin
- c. Lithium
- d. Phenytoin
- e. Valproic Acid

4. Which of the following extra-pyramidal effects seen with antipsychotic agents is also known as "rabbit syndrome"?

- a. Acute dystonia reaction
- b. Akathisia
- c. Parkinsonian syndrome
- d. Perioral tremor
- e. Tardive dyskinesia

5. An HIV patient comes to the physician with fever, neck stiffness and drowsiness. The doctor suspects meningitis after a spinal tap. What is the best treatment?

- a. Aspirin
- b. 1/V antibiotics
- c. NSAIDS
- d. Paracetamol
- e. Quinidine

6. Which of the following drugs is used as preanesthetic medication to produce amnesia?

- a. Atropine
- b. Diazepam
- c. Fentanyl
- d. Omeprazole
- e. Ranitidine

7. A man already using one of the following drugs develops headache, flushing, nausea, and vomiting soon after taking alcohol. Which of the following drug was already in his use?

- a. Clonazepam
- b. Disulfiram
- c. Ethosuximide
- d. Haloperidol
- e. Imipramine

8. An eighteen weeks pregnant lady presents with a new onset of generalized seizures. She has had high grade fever a couple of days back due to a urinary tract infection. What medication would be most appropriate in this condition to control her seizures?

- a. Carbamazepine
- b. Lamotrigine
- c. Levetiracetam
- d. Phenytoin
- e. Valproic Acid

9. A 45-year-old man had been suffering from a central nervous system disorder for many years. Recently, a barbiturate was added to his pharmacotherapy. Which of the following central nervous system effects was most likely elicited by that drug?

- a. Analgesic
- b. Anticonvulsants
- c. Antidepressants
- d. Antiparkinson
- e. Antipsychotic

10. A patient physically dependent on an opioid agonist is brought to the emergency department with insomnia, anxiety, rhinorrhea, lacrimation and mydriasis 12 hours after the last dose. Which one of the following drugs will exacerbate these withdrawal symptoms?

- a. Acetaminophen
- b. Codeine
- c. Diazepam
- d. Methadone
- e. Naltrexone

11. A 16-year-old girl brought by ambulance to the emergency department was diagnosed with status epilepticus and was given an intravenous injection of a drug that binds to the α -subunit of the GABA-A receptor complex. Which of the following drugs was most likely administered?

- a. Flumazenil
- b. Lorazepam
- c. Phenytoin
- d. Valproic Acid
- e. Zolpidem

12. Allergic reactions recurring during the immediate post operative period are most commonly attributed to administration of:

- a. Muscle Relaxants
- b. Local Anesthetics

- c. Antibiotics
- d. Opioids
- e. Anti-emetics.

13. Drug of choice in absence seizures is

- a. Phenobarbitone
- b. Sodium valproate
- c. Ethosuximide
- d. lamotrigine
- e. Topiramate

14. A 59-year-old man underwent surgery to repair an inguinal hernia. Lorazepam was administered as preanesthetic medication. General anesthesia was induced by propofol and maintained with halothane and nitrous oxide. Ondansetron was also given to prevent vomiting. Fifteen minutes after starting the operation, the electrocardiogram monitor showed ventricular tachycardia. Which of the drugs most likely caused this adverse effect?

- a. Halothane
- b. Lorazepam
- c. Nitrous Oxide
- d. Ondansetron
- e. Propofol

15. A 32-year-old man was admitted to the hospital for reduction of a dislocated shoulder. Sedation with diazepam was supplemented with a 30% concentration of nitrous oxide. Which of the following effects most likely occurred after nitrous oxide administration?

- a. Excellent skeletal muscle relaxation
- b. Profound respiratory depression
- c. Rapidly achieved unconsciousness
- d. Sharp decrease in blood pressure
- e. Very pronounced analgesia

16. A 75-year-old woman was undergoing cystoscopy for a suspected papilloma of the bladder. Before the procedure, the anesthesiologist administered alprazolam to induce conscious sedation and to avoid situational anxiety. When the cystoscopy was over, flumazenil was administered. Which of the following terms best defines the mode of action

- a. Competitive Antagonist

- b. Full agonist
- c. Functional antagonist
- d. Inverse agonist
- e. Partial agonist

17. A 32-year-old man was admitted to the hospital for reduction of a dislocated shoulder. Sedation with diazepam was supplemented with a 30% concentration of nitrous oxide. Which of the following effects most likely occurred after nitrous oxide administration?

- a. Excellent skeletal muscle relaxation
- b. Profound respiratory depression
- c. Rapidly achieved unconsciousness
- d. Sharp decrease in blood pressure
- e. Very pronounced analgesia

18. A 63-year-old woman complained to her physician of difficulty in falling asleep. She denied nocturnal insomnia or early awaking. The doctor prescribed ramelteon, one tablet at bedtime. Which of the following molecular actions most likely mediated the therapeutic effect of the drug?

- a. Activation of GABA receptors
- b. Activation of melatonin receptors
- c. Activation of serotonin 5-HT₃ receptors
- d. Blockade of alpha-1 (α-1) receptors
- e. Blockade of glutamate receptors

19. A 4-year-old girl who had been suffering from severe asthma for 6 months was scheduled for a short suture procedure that was anticipated to take approximately 10 minutes. She was brought to the operating room by her parents and was in distress over parting from them and afraid of the doctors. Which of the following drugs would be appropriate for providing sedation and analgesia for this girl?

- a. Fentanyl
- b. Halothane
- c. Ketamine
- d. Sevoflurane
- e. Thiopental

20. A 12-year-old boy who was recently diagnosed with absence seizures started a therapy with ethosuximide. Which of the following molecular actions most likely mediated the therapeutic efficacy of the drug in the patient's disorder?

- a. Activation of GABA-A receptors
- b. Blockade of ligand-gated Na⁺ channels
- c. Blockade of NMDA receptors
- d. Blockade of T-type Ca²⁺ channels
- e. Opening of voltage gated K⁺ channels

21. A patient with suspected poisoning was brought to the emergency department with vomiting and staggering gait, on examination pupils were dilated, skin was dry and temperature was raised, he had difficulty in talking. He tried to grasp imaginary objects and tried to pull imaginary threads from the tips of his fingers. Which of the following is the appropriate antidote therapy for this patient?

- a. Atropine
- b. Barbiturates
- c. Naloxone
- d. Physostigmine
- e. Pralidoxime chloride

22. A 34-year-old male patient who was prescribed citalopram for depression has decided he wants to stop taking the drug. When questioned, he said that it was affecting his sexual performance. You ascertain that he is also trying to overcome his dependency on tobacco products. If you decide to reinstitute drug therapy in this patient, the best choice would be

- a. Bupropion
- b. Fluoxetine
- c. Imipramine
- d. Paroxetine
- e. Venlafaxine

23. Addition of adrenaline to a solution of lidocaine for a peripheral nerve block will:

- a. Decrease the duration of action of lidocaine
- b. Decrease the risk of seizures due to lidocaine
- c. Increase the duration of action of lidocaine
- d. Increase the maximum efficacy of lidocaine
- e. Increase the potency of lidocaine

KGMC 2023

1. A 20 yr old came to psychiatry opd for bipolar affective disorder, she was started on treatment.

She came next day with extrapyramidal symptoms .

Which drug is responsible:

- a. Haloperidol
- b. Fluoxetine
- c. Escitalopram
- d. Quetiapine
- e. Amitriptyline

2. Which of the following anxiolytic drug noted for its lack of sedation

- a. Hydroxyzine
- b. Diazepam
- c. Oxazepam
- d. Alprazolam
- e. Buspiron

3. Anticholinergic drugs are used in the treatment of Parkinsonism because of its mechanism of ...

- a. Dec Ach from loss of neurons
- b. Inc degeneration of dopaminergic neurons
- c. imbalance of neurotransmitters in basal ganglia
- d. Increase Acetylcholinesterases
- e. increase GABA action at Cl channel

4. Baclofen is used to treat muscle spasticity through which of following.

- A. as receptor agonist at GABA_B.
- B. Block acetylcholine receptor
- C. Enhances release of GABA vesicles
- d. As an antagonist at glutamate receptor
- e. .Inc GABA action at CL Channel

5. Which anesthetic has a low blood:gas partition coefficient but is not used for induction of anesthesia because of airway irritation?

- a. Enflurane
- b. Desflurane
- c. Isoflurane
- d. Sevflurane
- e. Halothane

6. A drug that increase serotonin reuptake selectively but not norepinephrine or dopamine.

What is the drug?

- a. Amitriptyline
- b. Imipramine
- c. Fluoxetine
- d. Venlafaxine
- e. Mirtazapine

7. The adverse effect profile of Naloxone does not contain :

- a. Hypertension
- b. Pulmonary edema
- c. Seizures
- d. Ventricular dysrhythmia
- e. Dysphoria

8. A 60 years old woman is seen in clinic for a new diagnosis of epilepsy. She has experienced recurrent partial seizures attributed to a left hemisphere stroke her primary care physician started her on phenytoin which resulted in rash. Which other drug can be prescribed to her .:

- a. Carbamazepine
- b. Phenobarbitone
- c. Valproate
- d. Zonisamide

9. In a patient with seizure disorder which of the following antidepressant is contraindicated?

- a. Nefazodone
- b. Fluoxetine
- c. Venlafaxine
- d. Mirtazapine
- e. Bupropion

10. A 20 years old man with Absent seizures is treated with ethosuximide. Which of the following is the

mechanism of action of the mentioned drug?

- a. T type calcium channel blockade
- b. Inc in frequency of cl channels opening
- c. Inc in GABA
- d. Inc K⁺ channels permeability
- e. Na⁺ channels blockade

11. Which statement concerning the use of Lithium in Bipolar affective disorder accurate?

- a. Excessive take of Nacl increases the lithium toxicity
- b. Lithium allievates the manic phase of bipolar disorder within 24 hrs
- c. It does not cross the placental barrier
- d. Its dosage must be decreased in patients taking thiazides
- e. Its elimination rate is equivalent to creatinine.

12. A patient with undiagnosed coronary artery disease is given a medication shortly after that she develops intense tight and "crushing dis comferr" Of her chest, An ekg reveal ST segment changes indicats Acute myocardial ischemia, patient suffering Angina pectoris as a result of a drug . Which drug most likely is used.

- a. Clozapine
- b. Pentazocine
- c. Phenytoin
- d. Sumatriptan
- e. Zolpidam

13. Ropinirole is useful for the treatment of

- a. Parkinson's
- b. Wilson's disease
- c. Hoffman's syndrome
- d. Carpel tunnel syndrome
- e. Depression

14. Which opioid analgesic is used as transdermal patch to relieve severe pain of malignancy

- a. Morphine
- b. Pentazocine
- c. Fentanyl
- d. Tramadol
- e. Lignocaine

15. A patient after taking certain medicine reports profound thirst and dilute urine everyday. This is the adverse effect of which drug?

- A. Diazepam
- B. Flouxetine
- C. Haloperidol
- D. Lithium
- E. Phenytoin

16. A child taking drugs for parkinsonism for 2 yrs developed blue colour spots on the body , which of the following drug caused this,

- a. Amantadine
- b. Bromocriptine
- c. Tolcapone
- d. Ropirinole

17. A patient has piloerection, mydriasis, high blood pressure, and abdominal cramps, your diagnosis is :

- a. Alcohol Abstinence
- b. Barbiturates abstinence
- c. Benzodiazapines abstinence
- d. Opiod abstinence
- e. Amphetamines abstinence

18. A 33 years old woman has a 15 years history of Alcohol abuse . She comes to the emergency dept for

the treatment of injuries she has received during a fall. She says she has been drinking heaviky and almost continuously for almost 2 weeks. She wants to stop, which drug would effectively and safely lessen her withdrawal symptoms

- a. Busprione
- b. Chlordizepoxide
- c. Chloral hydrate
- d. Midazolam
- e. Zolpidem

19. CNS stimulation produces by methyxanthine is due to antagonism of receptors

- a. Gaba receptors
- b. Gylcine
- c. Muscurinic
- d. Acyltacholine

20. A 42 years old man with a history of alcholism is brought to the emergency room in a confused and delirious state. He has truncal ataxia ans ophthalmoplegia. The most appropriate and immediate course of action is :

- a. Chlordizepoxide

21. Ultra short acting barbiturates after IV administration are quickly redistributed and on chemical analysis are more likely to be detected in

- a. Bile b. Body fats c. Bone
d. Muscles e. Skin

22. Barbiturates are excreted chiefly in

- a. Blood b. Bile c. Gastric content
d. Urine e. Viterous humor

23. 18 Yr old medical student have 6 month history of spending time in toilet and abulotion

He checks the lock and see whether door is lock extensively ,, he has irrational thought and feel helpless in resistingTreatment

- a. Aripiprazole b. Risperidone
c. Clonazpine d. Sertriline
e. Escitalopram

24. A 34 year old lady with a 3 weeks history of over talkativeness, decreased need of sleep, aggression. On mental state examination he is elated, having pressure of speech, flight of ideas and delusion of grandiosity. Which drug is used to treat it??

- a. Sertraline b. Paroxetine
c. Olanzepine d. Buspirone
e. Alprazolam

25. A 19 year old madrassa student presented with 2 months history of fearlessness , reduce sleep . He believes that his family is plotting against him and trying to kill him. He can hear from them from their basement although his room is sound proof. His father denied and stated that his son has developed social withdrawal, lost interest in daily activities and self neglect. What would be the appropriate medication for a patient presented above:

- a. Vaploic acid
b. Setralin
c. Respiradone
d. Amyline

26. Patient presented to ER with sweating palpitation hypertension chest pain and vomiting. The attendant told that he is chronic alcoholic. He develop this symptom after taking medication for lose motion.

What is this medication?

- a. Azithromycin, b. Ciprofloxacin
c. Doxacyclin d. Metronidazole
e. Levofloxacin

27. Which among the following increases the concentration of GABA neurotransmitter in synaptic cleft by blocking GAT-1 transporter at the presynaptic terminals.

- a. Valproate. b. Tiagabine.
c. Felbamate. d. Phenobarbitol.
e. Phenytoin

28.: Standard for basic anesthesia monitoring in general anesthesia include which of the following?

- a. Continuous display of MAC
b. Continuous display of electrocardiogram
c. Continuous display of tidal volume
d. Continuous display of temperature
e. Continuous display of airway pressure

KMC 2023

1. A 65 years old male patient with a history of depression and hypertension was prescribed citalopram. The physician was concerned about the possible risk of citalopram. What is the most common side effect of this drug?

- a. Hypotension b. Hyperglycemia
c. Hypercalcemia d. QT interval prolongation
e. Hepatotoxicity

2. A 50 years old male patient with a history of obsessive-compulsive disorder was prescribed MAO-Inhibitor by his psychiatrist. Which of the following class of drug might be a potential interaction in this case?

- a. Beta blockers b. Calcium channel blockers
c. Diuretics
d. Non-steroidal anti-inflammatory drugs(NSAIDs)
e. Selective serotonin reuptake inhibitors(SSRIs)

3. A 30 years old male patient is diagnosed with major depressive disorder and is prescribed amitriptyline. He takes the medication as prescribed for several weeks and report improvement in his mood and energy levels. What is the mechanism of action of amitriptyline in treating depression?

- a. It inhibits the breakdown of acetylcholine
- b. It blocks the receptor sites of dopamine
- c. It increases the production of dopamine
- d. It inhibits the reuptake of serotonin and norepineohrine
- e. It increases the production of serotonin

4. A 70 years old patient presented with bradykinesia, resting tremor and cog wheel rigidity. He is on levodopa. Peripheral adverse effects of levodopa includes nausea, hypertension and cardiac arrhythmias. These adverse effects can be deminished by additional administration of which drug?

- a. Amantadine
- b. Bromocriptine
- c. Carbidopa
- d. Entacapone
- e. Tolcapone

5. A 60 years old patient who is a known case of hypertension and coronary artery disease. His surgery is planned for removal of ingrowing big toe nail. He should receive a local anaesthetic without epinephrine for which of the below mentioned reason?

- a. Bradycardia
- b. Bradycardia and hypertension
- c. Bradycardia and hypotension
- d. Tachycardia and hypertension
- e. Tachycardia and hypotension

6. A researcher has discovered new inhalational anaesthetic. Which of the following characteristic is used to quantitate and compare the potency of this agent?

- a. Blood gas patient coefficient
- b. Cerebrovascular resistance
- c. Minimal alveoli concentration
- d. Relative analgesic potency
- e. Sensitivity factor

7. A 6 years old child badly burned when his house caught on fire. He sustained full thickness burns on approximately 40% of his body. He has spent many months on enduring multiple skin grafting procedures. To aid in reducing the pain associated with dressing change, he is given IV kitamine. This drug has been associated with which of the following adverse reaction?

- a. Distortion of reality and terrifying dreams
- b. Irritation to the respiratory airways
- c. Malignant hyperthermia
- e. Sensitization of the heart to catecholamine

8. A 37 years old man with psychosis has been treated with haloperidol. He has been developing parkinson like symptoms. Haloperidol-induced parkinson syndrome is a result haloperidol's action in which of the following tracts?

- a. Mesocortical tract
- b. Mesolimbic tract
- c. Nigrostriatal tract
- d. Reticulospinal tract
- e. Tuberoinfundibular tract

9. A 30 years old woman is diagnosed with schizophrenia and prescribed haloperidol. The therapeutic effect of haloperidol is mediated, at least in part by it's blockade of which of the following receptors?

- a. Alpha adrenoreceptors
- b. Beta adrenoreceptors
- c. Dopamine D2 receptors
- d. Histamine H1 receptors
- e. Muscarinic receptors

10. A 5 years old girl was brought to the OPD for episodic "blinking out" which began one month ago. The patient has episodes in which she abruptly stops all activities, remains motionless for about 10 seconds, followed by a rapid return to full consciousness. Which of the following is the drug of choice to treat this condition?

- a. Carbamazepine
- b. Ethosuximide
- c. Gabapentin
- d. Levetiracetam
- e. Phenytoin

11. A 30 years old woman suffering from classical migraine for many years. Her physician decided to prescribe sumatriptan. This drug most likely act by which of the following mechanism?

- a. It blocks reuptake of serotonin
- b. It is a 5-HT_{1A} agonist
- c. It is a 5-HT_{1D} agonist
- d. It is a 5-HT₃ antagonist
- e. It is a 5-HT_{2A} antagonist

12. A 42 years old man complained to his doctor about increasing anxiety, insomnia, irritability and severe craving for cigarettes. The patient, who was a two pack a day smoker for 15 years, had recently quit smoking. The physician prescribed which of the following drug to relieve his symptoms?

- a. Bromocriptine
- b. Bromazepam
- c. Buprenorphine
- d. Bupropion
- e. Buspirone

13. An 18 years old boy who had never previously used recreational drugs, took one tablet of LSD at a party. The CNS effects of this drug are primarily related to the activation of which of the following receptors?

- a. Allergic
- b. Muscarinic
- c. Nicotinic
- d. Noradrenergic
- e. Serotonergic

14. A 28 years old male was admitted unconscious to the emergency department. A friend stated that he was a poly drug user and had self-injected a drug approximately 45 minutes prior to admission. Blood pressure was 100/50, heart rate 95bpm, respiratory rate 5/min. Physical examination showed cyanosis and pinpoint pupils. Which of the following drugs did he most likely take?

- a. Amphetamine
- b. Cocaine
- c. Diazepam
- d. Heroin
- e. LSD

15. A 72 years old man presented to the OPD with a loss of balance and frequent falls for the past one month. The patient has a masked face, difficulty in initiating movement and tremors in hand which disappear while ask to lift a pen. Which of the following is the drug of choice for this patient?

- a. Benztropine
- b. Fluoxetine
- c. Levodopa
- d. Propranolol
- e. Risperidone

16. A 69-year-old woman presented to the OPD with Parkinson's disease and put on primary therapy along with disjunctive therapy for severe symptoms. She had a chronic history of depression and had been on Imipramine for the last 5 years. The next day she presented to the ER with anxiety, restlessness, delirium, diaphoresis, myoclonus, hypertension and hyperthermia. Which adjunctive therapy could have contributed to these sign and symptoms?

- a. Amantadine
- b. Bromocriptine
- c. Entacapone
- d. Pramipexole
- e. Selegiline

17. A 56 years old woman who is a diagnosed case of hypertension, presented to medical OPD for her routine checkup. While looking at her previous record, it was found that she was using lithium carbonate. Lithium is usually used for which of the following condition?

- a. Bipolar disorder
- b. Hypomania
- c. Neurosis
- d. Petit Mal seizures
- e. Trigeminal neuralgia

18. A 38-year-old heroin addict was determined to quit the habit and was admitted to a detoxification clinic. After physical examination and laboratory tests, treatment was started. Sublingual administration of which of the following drugs would be most appropriate for this patient?

- a. Buprenorphine
- b. Codeine
- c. Diazepam
- d. Naltrexone
- e. Phenobarbital

19. A 40-year-old man has low mood, anhedonia, lack of energy with death wishes, suicidal ideations and has made plans to commit suicide. He has history of serious suicide attempts in the past as well. Currently his only intake has decreased markedly and not interacting with people. He does not respond to medications despite good compliance. What is the best next strategy of management in this case?

- a. Addition of lithium with anti-depressants
- b. Augmentation with anti-psychotic medications
- c. Cognitive behavior therapy
- d. Continue on the same treatment
- e. Electroconvulsive therapy

20. Pre-anesthetic medication is given to:

- a. To control patient co-morbidity
- b. To decrease duration of surgery

- c. To decrease pain during surgery
- d. To maintain blood pressure
- e. To make anesthetic procedure pleasant and safe

KMC 2024

1: A 30 years old man with history of panic attacks came to OPD with symptoms of palpitations, sweating and dryness of mouth that didn't improve with psychotherapy. Which of the following drugs is most suitable to treat his panic disorder?

- a. Carbamazepine
- b. Escitalopram
- c. Haloperidol
- d. Thiopentose
- e. Phenelzine

2: A 52 years old man was shifted to operation theater for the fracture of femur head. To reduce anxiety of the patient, the anesthetist injected which of the following drug along with general anesthesia?

- a. Midazolam
- b. Haloperidol
- c. Diazepam
- d. Phenobarbital
- e. Atropine

3: A 35 years old female presented to emergency department with tonic clonic seizures. The nurse on duty gives her diazepam intravenously to control seizures. What is the most possible mechanism of action of diazepam?

- a. Closure of chloride channel
- b. Closure of sodium channel
- c. Closure of calcium channels
- d. Membrane depolarization
- e. Membrane hyperpolarization

4: A 28 years old male was brought unconscious to the emergency department who had an accidental overdose of Clonazepam tablets. Which of the following drugs is used as an antidote for this toxicity?

- a. Acetyl cysteine
- b. Atropine
- c. Dabigatran
- d. Flumazenil
- e. Naloxone

5 : A 25 years old female comes to her first antenatal visit at 5th week of gestation. She tells her doctor that she is taking paroxetine for depression for the past one month. Which of the following fetal complications is associated with it's use?

- a. Abortion
- b. Cardiac malformations
- c. Growth retardation
- d. Prematurity
- e. Stillborn

6 : A 33 year old female was brought to hospital for acute change in mental status noticed by her husband. He reports that she has been taking a drug for schizophrenia for the past one year. On examination, the woman is diaphoretic, with some rigidity of her extremities. Her BP is 198/109 , Temperature 101 F . Blood analysis show grossly elevated creatine kinase. Which of the following would be appropriate treatment for this patient?

- a. Escitalopram
- b. Chlorpromazine
- c. Dantrolene
- d. Fluoxetine
- e. Haloperidol

7: A 38 year old male patient of epilepsy visits his physician for routine check up. His seizures are well controlled by using a drug which acts by blocking sodium channels and modulation of NMDA receptors. Which one of the following drugs act through this mechanism?

- a. Carbamazepine
- b. Gabapentin
- c. Lamotrigine
- d. Phenytoin
- e. Sodium valproate

8: A 5 years old girl is brought to OPD because of epilepsy ' blanking out' which began one month ago. The patient has episodes in which she abruptly stops all activities, remains motionless with occasional fumbling hand movement for about 10 seconds, following by a rapid return to full consciousness. Which of the following is drug of choice to treat this condition?

- a. Carbamazepine
- b. Ethosuximide
- c. Gabapentin
- d. Levetiracetam
- e. Phenytoin

9: A 67 year old woman with history of classic angina pectoris is seeking treatment for migraine headaches of moderate intensity. Which of the following drugs is contraindicated for treating migraine in this patient?

- a. Acetaminophen
- b. Aspirin
- c. Naproxen
- d. Propranolol
- e. Sumatriptan

10: A 5 years child is admitted to the hospital with a low grade fever and a persistent cough that has resulted in vomiting episodes. After few days his fever has resolved, and all that is left is a slight cough. He is discharged from the hospital by the pediatrician who recommends an over the counter opioid antitussive. Which of the following did he recommend?

- a. Dextromethorphan
- b. Loperamide
- c. Naloxone
- d. Morphine
- e. Tramadol

11: A 60 years old patient is brought to emergency room at 4:00 pm by his friend after a road accident. Hee has multiple fractures and the surgeon decided to perform surgery. Which of the following is a potent analgesic but a weak anaesthetic drug?

- a. Benzodiazepine
- b. Halothane
- c. Ketamine
- d. Nitrous oxide
- e. Thiopental

12: A 6 year old child was brought to ER with complaints of pain abdomen, vomiting and fever . He has tender abdomen with raise TLC . The surgeon decided to perform laparotomy. Which of the following inhalational anesthetics is used for an induction agent of choice in children?

- a . Ether
- b. Halothane
- c. Isoflurane
- d. Nitrous oxide
- e. Sevoflurane

13: A 60 years old male patient developed profound fever, skeletal muscle rigidity, autonomic hyperactivity and systemic electrolyte imbalance as part of response to general anesthetic drug, which of the following is most likely responsible for these symptoms?

- a. Ether
- b. Halothane
- c. Isoflurane
- d. Nitrous oxide
- e. Sevoflurane

14: A 14 year old athlete with a history of asthma comes to your clinic seeking a medication for migraine prophylaxis. Which of the following drugs would avoid using in this patient?

- a. Amitriptyline
- b. Propranolol
- c. Topiramate
- d. Valproate
- e. Venlafaxine

15: A 55 years old lady, who is diagnosed case of psychiatric illness , presented to you for medical check up while looking at her previous prescription, you found that she is using lithium carbonate for the last sixth months . What is the most probable diagnosed for which she is using LC ?

- a. Anxiety disorder
- b. Bipolar affective disorder
- c. Depression
- d. Obsessive compulsive disorder
- e. Psychosis

16: A 33 years old lady who is a diagnosed with ovarian cancer and on chemotherapy she was operated for acute appendicitis but she went to respiratory depression and couldn't make smooth recovery from anesthesia. Which one of the following drugs can be used to treat her respiratory depression?

- a. Amitriptyline
- b. Bromaxepam
- c. Carbamazepine
- d. Dozepam
- e. Ondansetron

17: A first yr old surgery interneer has rotated in numerous surgical disciplines , including general surgery. Cardio thoracic surgery oncology. He is quite used to liberally ordering morphine for pain control. However which of the following is an absolute contraindication to opioid use?

- a. Acute pulmonary edema
- b. Femur fracture
- c. Closed head injury
- d. Myocardial infarction
- e. Renal colic

18: An otolaryngologist decides to perform sinus surgery to debride the scarred sinus tissue, during the procedure he elects to use an agent that has good local anesthesia as well as vasoconstrictive properties. What agent might he use?

- a. Cocaine
- b. Lidocaine
- c. Mepivacaine
- d. Procaine
- e. Tetracaine

19: A 23 year old man is brought to the emergency room after he was found walking the streets , proclaiming himself "master of the world" . The physician recommends starting the patient on lithium therapy for acute mania. Which of the following is associated with lithium use?

- a. Fine tremors
- b. Hyperthyroidism
- c. Urinary retention
- d. Weight loss
- e. Gingival hyperplasia

20: A 35 years old patient of depression visited his physician for follow up, six months after using selective serotonin reuptake inhibitor. Upon ing he revealed that he still had no returned to the normal activities and reluctantly admitted that he had not been taking his medication because of the side effects. Which one is likely to be the most bothersome?

- a. Headache
- b. Sexual dysfunction
- c. Tachycardia
- d. Tremors
- e. Weight gain

21: A young lady who developed severe headache was given narcotic analgesics for pain relief. She recovered quickly with that and would use the same medicine without any prescription. Gradually she increased the amount of that narcotic analgesic as same amount of medicine would not give her relief from pain . This phenomena is called as;

- a. Dependence
- b. Desensitization
- c. Habituation
- d. Intoxication
- e. Tolerance

22: A 45 years old man is brought with overdose of some drug of abuse. The family does not know which drug he is using now a days. On examination you found pin point pupils, over sedation, dry mouth and shallow breathing. The most likely overdose is because of which drug?

- a. Alcohol
- b. Cannabis
- c. Cocaine
- d. Methyl phenidate
- e. Opioids

23: All of the following are stages of anesthesia except

- a. Analgesia
- b. Excitement
- c. Hyperthermia
- d. Modularly paralysis
- e. Surgical anesthesia

24: preanesthetic medication is given to:

- a. To control patient co morbidity
- b. To decrease duration of surgery
- c. To decrease pain during surgery
- d. To make anesthetic procedure safe and pleasant
- e. To maintain blood pressure

25: Which of the following is correct about drug succinylcholine?

- a. Analgesia
- b. Anti cholinesterase
- c. Depolarizing
- d. Non depolarizing
- e. Sedative

3. FORENSIC MEDICINE

PAPER WMC

1. Fatal period of ethanol poisoning is:

- a. 12-24 hours
- b. few minutes
- c. 24-48 hours
- d. 3-4 hours
- e. Few seconds

2. Cause of death in Inebriant poisoning is:

- a. Failure of renal system
- b. Failure of respiratory system
- c. Failure of cardiovascular system
- d. Failure of endocrine system
- e. Failure of digestive system

3. Cause of death in café coronary:

- a. asphyxia
- b. Laryngeal edema
- c. Cardiac arrest
- d. Hypertension
- e. Alcoholic gastritis

4. Poisonous part of Datura plant is:

- a. Roots
- b. Stems
- c. Leaves
- d. Seeds
- e. Flowers

5. The following poison is used as a stupefying agent:

- a. Paraquat
- b. Physostigmine
- c. Kerosene
- d. Methanol
- e. Vedhatura

6. Most potent form of cannabis indica is:

- a. Bhang
- b. Charas
- c. Majun
- d. Ganja
- e. Heroin

7. A person brought by the police from a railway platform. He is having dry mouth, hot skin, facial flushing, staggering gait and a slurred speech. The most probable diagnosis is:

- a. Alcohol intoxication
- b. Organophosphorous poisoning
- c. Dhatura poisoning
- d. Carbon monoxide poisoning
- e. Carbamates poisoning

8. nux vomica seeds are:

- a. Hard, flat and ash grey
- b. Soft, flat and ash grey
- c. Hard, spherical and red
- d. Hard, flat and convex on both sides
- e. Hard and round with concave sides

9. In strychnine poisoning the body is arched back in position and the patient is seemed to be standing on their heels. This condition is called:

- a. Pleurosthotonas
- b. Opisthotonus
- c. Emprosthotonus
- d. Risussardonicus
- e. AcEwan's sign

10. Fatal dose of strychnine poisoning is:

- a. 1 crushed seed
- b. 6 crushed seeds
- c. 2 whole seeds
- d. 1 whole seed
- e. 2 crushed seeds

11. In postmortem appearance of strychnine poisoning rigor mortis:

- a. Develops rapidly and lasts for a short period
- b. Develops slowly
- c. Does not develop at all

- d. Lasts for a shorter period
- e. Develops rapidly

12. Following is used in the treatment of narcolepsy:

- a. Cocaine
- b. Amphetamine
- c. Cannabis indica
- d. Kerosene
- e. Brucine

13. Large dose effect of amphetamines include:

- a. Nausea
- b. Insomnia
- c. Delirium with auditory hallucinations
- d. Cuphoria
- e. Abdominal cramps

14. Trip' is the psychotropic effect resulting from the use of:

- a. Stimulants
- b. Spinal poisons
- c. Inebriants
- d. Hallucinogens
- e. Deliriants

15. The following is synthesized from 'rya ergot':

- a. Phencyclidine
- b. Bensedrin
- c. Peyote
- d. Mescaline
- e. LSD(Lysergic Acid diethylamide)

16. Following is given orally to slow down the absorption of kerosene:

- a. 250ml liquid paraffin
- b. Stearic acid
- c. 450 ml liquid paraffin
- d. Mineral oil
- e. Activated charcoal

17. Fatal dose of kerosene is:

- a. 1-2ml
- b. more than 10ml
- c. 0.1ml
- d. 5ml
- e. 7-8ml

18. It is not a sign of organophosphorous poisoning:

- a. Miosis
- b. Bronchodilation
- c. Bradycardia
- d. Salivation
- e. Tremors

GMC 2023

1. The pupils are contracted to pin point in the following positioning;

- a. Dhafura b. Alcohol c. Morphine
d. Barbiturates e. Paracetamol

2. Convulsions like in tetanus can be seen in the following Acute poisoning due to .

- a. Morphine b. Codnien c. Narcotine
d. Papavarine e. Lead

3. The clinical use of codeine is as.

- a. Cough syrup b. Antipyretic
c. Analgesic d. Anti histaminic
e. Antibiotic

4. The fatal dose of opium is.

- a. 1.2gm b. 10 gm c. 50gm
d. 100gm e. 200gm

5. The following antidote should be used for morphine poisoning.

- a. Physostigmine b. Atropine
c. Methyl alcohol d. Naloxone
e. N acetyl cystine

6. Rhabdomyolysis can be seen in the following poisoning;

- a. Opium b. Arsenic c. Alcohol
d. Barbiturates e. paracetamol

7. Wordmark's formulae is helpful to know;

- a. Weight of an individual
b. Race of an individual
c. Amount of alcohol consumed
d. Rate of cooling
e. Toxicity of any poison

8. The Best specific antidote in methyl alcohol poisoning is ;

- a. Chloral hydrate b. Ethyl alcohol
c. Atropine d. Physostigmine
e. N acetyl cysteine

9. Body packer syndrome is seen in trafficking of the following agent;

- a. Opium b. Cocaine c. Barbiturates
d. Cannabis e. Alcohol

10. The following drug is also misused for reduction in weight;

- a. Morphine b. Amphetamine c. Cocaine
d. LSD e. Heroin

11. The most potent hallucinogen known till date is.

- a. Charas b. Ganja
c. Amphetamine d. LSD
e. Morphine

12. Stereotyping behavior is seen in psychosis due to the chronic poisoning of;

- a. Opium b. Barbiturates
c. Brown sugar d. Ganja
e. Amphetamine

13. The body may be seen in the following postures in acute strychnine poisoning except;

- a. Opisthotonos
b. Emprosthotones
c. Pleurosthotones
d. Hyperflexion
e. Flaccid

14. The main site of action of strychnine is at ;

- a. Vasomotor centres
b. Cerebral cortex
c. Anterior horn cells
d. Respiratory centres
e. Hypothalamus

NWSM 2023

1. "Flash backs" are observed in:

- a. Cannabis poisoning
b. Cocaine poisoning
c. Datura poisoning
d. LSD psychosis
e. Hashish Insanity

2. The delusion having serious medico-legal implications is:

- a. Delusion of grandeur
- b. Delusion of infidelity
- c. Nihilistic delusion
- d. Delusional jealousy
- e. Delusion of persecution

3. Anesthetics are:

- a. Somniferous poisons
- b. Deliriant poisons
- c. Inebriant poisons
- d. Spinal poisons
- e. Peripheral poisons

4. Following conditions are correctly matched with causing agent except:

- a. Delirium tremens- alcohol
- b. Mee's line - arsenic
- c. Muttering delirium-dhatura
- d. Risus sardonicus --strychnine
- e. Run amok morphine

5. A person after ingesting a toxic agent is in a state of Narcosis. The pupils are contracted. However, on pinching the neck the pupils dilate initially and slowly return to their original size. The toxic agent is:

- a. Alcohol
- b. Barbiturate
- c. Carbolic acid
- d. Organophosphate
- e. Strychnine

6. Ordinary fatal dose of cocaine is:

- a. 1 gm
- b. 2 gm
- c. 3 gm
- d. 4 gm
- e. 5 gm

7. Which of the following poisons is considered to be a stupefying poison?

- a. Cocaine
- b. Dhatura
- c. Heroin
- d. Opium
- e. Strychnine

8. Kleptomania refers to:

- a. Evading problems
- b. Maiming animals
- c. Manic-depressive psychoses
- d. Setting fire to things
- e. Stealing minor things

9. You see a 19 year old female student in your clinic who displays odd behaviors, deemed culturally and socially inappropriate. These include inappropriate behavior such as oversharing intimate information and describing close physical familiarity with strangers, noted by her and the family also. What would be your most likely diagnosis?

- a. Acute stress disorder
- b. Adjustment disorder
- c. Dis-inhibited social engagement disorder
- d. Post-Traumatic Stress disorder/PTSD
- e. Reactive attachment disorder

10. A medical officer while examining a person with history of alcohol intoxication pinch on his neck, the pupils get constricted which were dilated initially and slowly return to their original size. This is known as:

- a. Freezed sign
- b. McEwan's sign
- c. Ophthalmic sign
- d. Ploquet's sign
- e. Robert's sign

11. Coke, crack, crystal and freebase are different names used for:

- a. Alcohol
- b. Cannabis
- c. Cocaine
- d. Heroin
- e. Morphine

12. Hallucinations, disorientation and confabulation, which is loss of memory for the recent events and filling the gaps with fabricated ones are features of:

- a. Acute hallucinosis
- b. Alcoholic hallucinosis
- c. Delirium tremens
- d. Korsakoff's psychosis
- e. Toxic psychosis

13. Organophosphates cause toxicity by:

- a. Combining with sulphhydryl enzymes
- b. Increasing dopamine production in brain
- c. Inhibiting choline esterase
- d. Inhibiting cytochrome oxidase system
- e. Stimulating anterior horn cells of spinal cord

KGMC 2023

1. marques test is done for :

- a. Arsenic poisoning
- b. Morphine poisoning
- c. Organophosphorous poisoning
- d. Mercury poisoning
- e. Cyanide poisoning

2. Other than drunkenness a case of datura poisoning maybe mistaken for

- a. Barbiturate automatism
- b. Diabetic coma
- c. Dry burns
- d. Heat stroke
- e. Hypothermia

3. Different feature of opium poisoning from potine hemorrhage

- a. Hypothermia
- b. Dizziness
- c. Paralysis
- d. Pinpoint pupils

4. Poison which cause excitement then narcosis

- a. Inebriant
- b. Hypnotic
- c. Sedative
- d. Somniferous

5. Regarding metabolism of heroin it is reduced/metabolised to

- a. Morphine
- b. Oxymorphine
- c. Hydromorphone
- d. Mepiridine
- e. Ethyl morphine

6. Sign of opium posioning?

- a. Lacrimation
- b. Salivation
- c. Sweating
- d. In continence of defecation
- e. In continence of micturation

7. : The police brought a dead body to mortuary for autopsy with history of suicidal poisoning, the medicolegal officer when entered the mortuary noted raw fish like smell emitting from the body which

is may be due to:

- a. Barbiturates poisoning

- b. Cannabis poisoning
- c. Cyanide poisoning
- d. Opium poisoning
- e. Organophosphorus poisoning

8. State of involuntional melancholia and consisting of statements that there is no world he does not exist . His body is dead etc refers to

- a. Confabulation
- b. Hypochondriacal delusion
- c. Illusion
- d. Nihilistic delusion
- e. Tactile hallucination

9. Fracture along the head sutures is

- a. Diastatic Fracture
- b. Close fracture
- c. Fissure fracture
- d. Open fracture
- e. Linear fracture

10. Drug addiction and drug abuse is the most common problem in which age group

- a. Childhood
- b. Adolescents
- c. Adulthood
- d. Old age
- e. No age restriction

11. Alcohol , barbiturates and opiates are placed in category

- a. CNS stimulants
- b. CNS Depressent
- c. Inhalents
- d. Hallucinogens

12. .A 15 years old boy who is running high grade fever for last 5 days presented to the emergency room for abnormal behaviour for last 8 hrs According to his mother he is irritable with disturb sleep and

occasionally he become teriified by pereziving the ropes charpon as snake .which one of the following is likely the condition he is suffering??

- a. Febrile fits
- b. Dementia
- c. Delirium
- d. Manic episode
- e. Panic attack

KMC 2023

1. A 65 years old chronic alcoholic man presented in OPD with the consequences of vitamin and mineral deficiencies, leading to dementia and memory disorders in alcohol abuse. Which of the following syndromes is most likely present in this patient?

- a. Fitz hugh curtis syndrome
- b. Helmert syndrome
- c. Huynh-Feldt syndrome
- d. Korsakoff's syndrome
- e. Smirnoff's syndrome

2. A young male patient was brought to the emergency room suffering from an overdose of cocaine following intravenous administration. Which of the following is unlikely to be present in this patient?

- a. Agitation
- b. Bradycardia
- c. Hyperthermia
- d. Myocardial infarction
- e. Seizures

3. A person who was given a barbiturate overdose, experienced giddiness, ataxia, slurred speech, delirium, and excitement, but as the poisoning progressed, the person became hypotensive, hypothermic, and cyanotic, with an abnormal breathing pattern. In the advanced stages of barbiturates poisoning. what form of abnormal respiratory pattern is commonly seen?

- a. Biots breathing
- b. chyne stokes breathing
- c. Apneustic breathing
- d. hyperpnea breathing
- e. kussmaul breathing

4. A woman with many comorbidities leads a stressful life that disrupts her sleep. To get some restful sleep, she decided to take choral hydrate as a hypnotic. She overdosed on Choral Hydrate since she was unaware of the dosage. Her attendants rushed her to the emergency room, where she was

given a stomach wash. What should be used for choral hydrate stomach washing?

- a. Alkali
- b. charcoal powder
- c. Potassium permanganate
- d. Saline washing
- e. Sodium bicarbonate

5. A person with severe withdrawal from reality and living as if in another world, a world of fantasy with delusions and hallucinations accepts all symptoms as real. reconstructs an environment of his own with which he tries to recreate the world. What type of psychiatric disorder he is suffering from?

- a. Delirium
- b. Delusion
- c. Psychopath
- d. Psychosis
- e. Sociopath

6. A Hashish addict after killing several persons surrendered himself to police. According to him they all were his enemy and was planning to kill him. What is this condition called?

- a. Bad trip
- b. Delirium tremens
- c. Magnans symptoms
- d. Run amok
- e. Speed ball

7. Provision of guidance, education, rehabilitation after care and preventive measures in the community (Family, home, workplace or educational institutions etc.). comes under which section of mental health act?

- a. Section 7
- b. Section 8
- c. Section 9
- d. Section 10
- e. Section 11

8. A person after killing a man stated that he was a bear completely denying the actual physical state of the person he killed. However, the court subjected him to be responsible for the crime. What is this condition called?

- a. Delirium
- b. Delusion
- c. Hallucinations
- d. Illusion
- e. Psychosis

9. A young male was brought to the emergency department with pin point pupil, moist, perspiring skin and peculiar alcoholic smell, which of the following characteristics breathing pattern recorded in the said poisoning?

- a. Slow breathing
- b. Fast absent breathing
- c. Fast slow breathing
- d. Slow fast breathing
- e. Fast breathing

10. A young cherubic male was autopsied in the Department of Forensic Medicine, KMC, Peshawar. The findings revealed, non-specific asphyxia signs, cyanosed face, and froth from mouth/nose with intense black PM lividity. Which type of poisoning is this?

- a. Amitriptyline
- b. Amphetamines
- c. Belladonna
- d. Datura
- e. Opium

11. A traveler was swimming on the beach after one hour of tanning. There is sudden muscular pain, stiffness of neck and limb girdle, What is the cause?

- a. Elephids
- b. Octopus
- c. Sea snake
- d. Stingray
- e. Vipers

12. A person feels that grains of sand are lying under the skin or some small insects are creeping on the skin giving rise to itching sensation; which poisoning is responsible for this condition?

- a. Alcohol withdrawal
- b. Cocaine poisoning
- c. LSD
- d. Morphine poisoning
- e. Organophosphorus

13. Which one of the following is not part of McNaughton Rule, which defines the circumstances in which the accused will not be held legally responsible for his conduct?

- a. Defect of reason
- b. Knowledge the act was wrong
- c. Nature of act
- d. Negligence
- e. Quality of act

14. A 28-year-old male was brought to emergency department in middle of the night in semiconductor. His pupils were constricted and respiratory rate was 12 breaths per minute. A handwritten note was found in his room full of life's miseries. What is the most likely diagnosis?

- a. Alcohol intoxication
- b. Amphetamines withdrawal
- c. Benzodiazepine overdose
- d. Suicide attempt with opioid
- e. Tricyclic overdose

15. What is the antidote in case of benzodiazepine overdose?

- a. Acetyl cysteine
- b. Disulfiram
- c. Flumazenil
- d. Naloxone
- e. Naltrexone

KMC 2024

1: A 35-year-old man got a new job that was extremely stressful. He began to have anxiety and panic episodes. As a result, he took benzodiazepine from a co-worker to help him cope with his anxiety and panic attacks, but he accidentally overdosed. His colleagues brought him to ER within 15 minutes. As a doctor, which antidote would you give to this patient?

- a. Acetaminophen
- b. Flumazenil
- c. Nalorphine
- d. Naloxone
- e. Zolpidem

2: A person who was given a barbiturate overdose, experienced giddiness, ataxia, slurred speech, delirium, and excitement, but as the poisoning progressed, the person became hypotensive, hypothermic and cyanotic with an abnormal breathing pattern. In the advanced stages of barbiturate poisoning, what form of abnormal respiratory pattern is commonly seen?

- a. Apneustic breathing
- b. Biot's breathing
- c. Cheyne-Stokes breathing
- d. Hyperpnea breathing

e. Kussmaul breathing

3: A woman with many comorbidities leads a stressful life that disrupts her sleep. To get some restful sleep, she decided to take chloral hydrate as a hypnotic. She overdosed on chloral hydrate as she was unaware of the dosage. Her attendants rushed her to emergency room, where she was given a stomach wash. What should be used for chloral hydrate poisoning during gastric lavage?

- a. Alkali
- b. Charcoal powder
- c. Potassium permanganate
- d. Saline washing
- e. Sodium bicarbonate

4: An officer in charge of police station was called for an immediate response in a public park for a person who was suspected to be mentally ill and needed to be taken to a safe place for evaluation and possible care. How much detention time should not exceed in such cases?

- a. One week
- b. Seventy two hours
- c. Thirty six hours
- d. Twelve hours
- e. Twenty four hours

5: A married couple had a tense life going on. The wife in the relationship is a chaste but the husband not only assaults her as well but also asks her regarding any extramarital affairs. What is the suffering of the husband in this case?

- a. Auditory hallucinations
- b. Confabulations
- c. Fugue
- d. Delusions of infidelity
- e. Delusions of influence

6: A male of middle age had a major problem regarding constant idea occurring in his mind with irresistible force. The person is unable to drive away

the said idea from his mind. What is the diagnosis in this case?

- a. Delusion
- b. Impulse
- c. Intellect
- d. Obsession
- e. Thought

7: A married couple was living a stressful life due to many domestic problems. The husband was of the view that the wife is attempting to kill him by slow poisoning; however, in reality there was not any such scenario. What type of delusion does the husband have?

- a. Erotomaniac
- b. Grandiose
- c. Jealous
- d. Persecutory
- e. Somatic

8: Provision of guidance, education, rehabilitation after care and preventive measures in the community (family, home, workplace or educational institutions etc) comes under which section of mental health act?

- a. Section 7
- b. Section 8
- c. Section 9
- d. Section 10
- e. Section 11

9: A mentally ill person was caught by the police for his vague actions in the community park. In urgent admission for assessment, what is the period of detention?

- a. 12 hours
- b. 23 hours
- c. 48 hours
- d. 72 hours
- e. 1 week

10: A father brought his son to the doctor with a chief complaint that he calls an air conditioner as a television and falsely interprets an object with its real existence. What is the suffering of the son?

- a. Delusions
- b. Delirium
- c. Illusion
- d. Psychosis
- e. Schizophrenia

11: A father brought her daughter in a state of complete suppression of speech, movement and action with no disturbance of consciousness. What is the name of this condition?

- a. Fugue
- b. Shock
- c. Stupor

- d. Trance e. Twilight state

12: A mentally retarded person was brought to you for mental age assessment. Upon examination of skills the person was socially and vocationally enough your assessment was that he can minimally self support himself. You put him under category of feeble monors . According to the assessment what is the person mental age ?

- a. 2 years old b. 3 years old
c. 4 years old d. 5 years old
e. 6 years old

13: A young male was brought to the emergency department with pin point pupil, moist, perspiring, skin and with peculiar alcoholic smell . Which of the following is characteristics breathing will be recorded in the said poisoning?

- a. Fast breathing
b. Fast absent breathing
c. Fast slow absent breathing
d. Slow breathing
e. Slow fast breathing

14: A young cachexic male was autopsied in the department of Forensic Medicine, KMC Peshawar. The examination findings revealed, non specific asphyxia sign , cyanosed face, and forth from mouth/nose with intense black PM Lividity. Which type of poisoning is this?

- a. Amitriptyline b. Amphetamine
c. Belladonna d. Diarrhea
e. Opium

15: A traveller during recreational trip was swimming on a beach. After one hour of swimming he noticed sudden muscular pain , stiffness of neck and limb griddle . What is the diagnosis in this case of poisoning?

- a. Elapids
b. Octopus
c. Sea snake

- d. Stingray
e. Vipers

16: A person felt some grains of sand lying under the skin or some small insects creeping on the skin giving rise to itching sensation. Which poisoning causes this condition?

- a. Alcoholic withdrawal
b. Cocaine poisoning
c. Morphine poisoning
d. LSD
e. Organophosphorus poisoning

17: The defense based on insanity is an ordinary practice in the court of law , where in the accused is given the relief. In which of the following circumstances the defense based on Mc Naughton rule cannot be applied?

- a. Defect of reason
b. Knowledge that act was wrong
c. Nature of act
d. Negligence
e. Quality of act

18: A dead body was recovered from margalla hills in post mortem examination black resinous traces were found on hands and mouth, which are similar to that of curare. What is the fatal dose of this Poison?

- a. 10_20 mg b. 30-50 mg
c. 80- 100 mg d. 1 mg
e. 2 mg

4. COMMUNITY MEDICINE

PAPER WMC

1. In a rural village of 200,000 population. crude birth rate was recorded as 20 per 1000 population. In a year 40 maternal deaths were recorded in that village, Maternal Mortality Ratio (MMR) of village was

- a. 0.2/1000 live births
b. 6/1000 live births
c. 71000 live births
d. 10/1000 live births

e. 12/1000 live births

2. An epidemiologist noted that in a closed urban locality, 125 cases of corona occurred and only 25 survived. Killing power of corona is

- a. 20%
- b. 60%
- c. 70%
- d. 50%
- e. 90%

3. To see the relationship between coffee drinking and carcinoma of pancreas, a researcher conducted a Cohort study, At the end of study, Population Attributable Risk was calculated as 75% Population Attributable Risk 75% means

- a. 75% of population is having carcinoma of pancreas
- b. 75% of population can be saved from carcinoma of pancreas by eliminating coffee drinking
- c. Risk factor positive have 75 times more chances to develop carcinoma of pancreas as compared to risk factor negatives
- d. Prevalence of carcinoma of pancreas is 75/100 population
- e. There is probability of 75% that risk factor under study will cause carcinoma of pancreas

4. In 2023, researchers designed a 20 years study design, to see the relationship of smoking and lung cancer. They decided to dig out the documented record of 5000 subjects from year 2003, The measure of association comes to be 4. This type of study is an example of

- a. Ambispective study design
- b. Case control study
- c. Nested case control study design
- d. Prospective cohort study
- e. Historical cohort study design

5. In screening test against diseases, cut off line plays an important role for sensitivity and specificity. Lead In: If we decrease the cut off line from 100mg/dl to 90 mg/dl, for screening of diabetes mellitus then

- a. True negative and false negative will Increase

- b. True negative will increase and false negative will decrease
- c. True positive and false negative will increase
- d. True positive and false positive will Increase
- e. True positive will increase and false positive will decrease

6. Blinding or masking is heart of Randomized clinical trials. Lead In: In a double-blind randomized control trial followings are masked

- a. Participants
- b. Observer
- c. Analyser
- d. Participants and analyser
- e. Observer and participants

7. A researcher inducted 1000 persons in a study for a period of 5 years to see the presence of disease in them. 50 persons left the study after remaining in study for 2 years. 1000 people were also inducted after 3 years.

The best method to calculate No of new cases of disease for this type of study will be to calculate

- a. Attack rate
- B. Incidence rate
- c. Incidence density
- d. Prevalence rate
- e. Secondary attack rate

8. In a village of 2000 population (1200 males and 800 females), 48 females and 70 males died in a year. The sex specific death rate for female is

- a. 2.4%
- b. 6% female population
- c. 60/1000 population
- d. 60/1000 female population
- e. population 1000/70

9. In a joint family there were 18 children from 3 to 12 years of age. 3 children had measles when they were 4 years old. 2 children were vaccinated with BCG at birth. Epidemiologist noted 11 children having measles in a short period of time.

Secondary Attack Rate of measles is

- a. 57.6% b. 66.7%- c. 71.4%
 d. 83.3% e. 97.5%

10. In a clinical setting, a physician assembled 20 cases of his ward and all were given a new drug to see its results for lowering of temperature in all 20 'fever cases. This type of study design is

- a. Concurrent parallel
 b. Cross over type of study design
 c. Cross sectional survey
 d. Longitudinal survey
 e. Quasi experimental design

11. In a village of 20000 persons (11000 males and 9000 females), 300 died of TB, 50 of snake bite, 200 of corona, 300 of diarrhoea and 400 of malaria. Lead In: Proportional mortality rate from snake bite is

- a. 1% b. 2% c. 3% d. 4% e. 5%

12. In a village of 20000 persons (11000 males and 9000 females), 300 died of TB, 60 of snake bite, 200 of corona, 300 of diarrhoea and 400 of malaria.

Cause specific death rate from snake bite is

- a. 1% b. 2% c. 3% d. 4% e. 5%

13. A study was conducted on 100 individuals to find out the 95% confidence interval for the population mean hemoglobin while the standard deviation was 2 and the sample mean was 12 gm. Calculate the confidence Interval.

- a. 9.1-11.8 b. 10.2-13.6 c. 11.6-12.4
 d. 12.6-16.7 e. 14-20.9

14. Standard deviation is computed to:

- a. See relationship between two variables
 b. Measure variability of the distribution
 c. Find probability
 d. Construct frequency distribution
 e. Find the mean

15. A researcher is designing a new questionnaire to examine patient stress levels on a scale of 0 to 5.

What type of outcome variable is being collected?

- a. Ratio b. Nominal c. Interval
 d. Ordinal e. Binary

16. An analysis of the race of patients who visit an emergency room reveals that 40% are Saudis, 25% are Africans. 20% are Americans, and 15% are South Asian. These data would best be depicted graphically with a

- a. Single bar chart
 b. Cumulative frequency graph
 c. Histogram
 d. Pie chart
 e. Component bar chart

17. In a study carried out in the hospital ward, every 10th admitted patient was included in the sample, which sampling procedure is this:

- a. Random sampling
 b. Stratified sampling
 c. Quota sampling
 d. Systematic sampling
 e. Snow ball sampling

18. A type II error occurs when:

- a. The null hypothesis is incorrectly accepted when it is false
 b. The null hypothesis is incorrectly rejected when it is true
 c. The sample mean no different than population mean
 d. The sample mean differs from the population mean
 e. The test is biased

19. The z-score measures the relative position of one observation relative to others in a data set. What components are needed to compute a z-score?

- a. Median and range
 b. Mean and range
 c. Mean and standard deviation
 d. Median and standard deviation
 e. Mean, Median and Mode

20. People who are available, volunteer, or can be easily recruited are used in the sampling method called

- a. Simple random sampling
- b. Cluster sampling
- c. Systematic sampling
- d. Convenience sampling
- e. Snow ball sampling

21. A person was bitten by rabid dog on the leg while moving through the street, he was brought by his family members to the hospital, on examination there was lacerating wound on the shin and calf muscles, he was screaming with pain, what may the early treatment he needs at emergency department?

- a. Antirabies vaccine 1 ml
- b. Immunoglobulin
- c. Antibiotic coverage
- d. Injection T.T 0.5 ml stat
- e. Cleaning and washing of wound

22. The best support provided to a mentally sick person is through his family. Which level of prevention is this?

- a. Primordial b. Primary c. Secondary
- d. Tertiary e. Quaternary prevention

23. In descriptive statistics, data from the entire population or a sample is summarized with?

- a. Integer descriptors
- b. Floating descriptors.
- c. Numerical descriptors
- d. Decimal descriptors
- e. Absolute descriptors

24. How many main statistical methodologies are used in data analysis?

- a. 2 b. 3 c. 4 d. 5 e. 0.6

25. The correct schedule of rabies vaccine is according to the following days

- a. 0,3,7,14 b. 0,7,14,28
- c. 1,14, 28 d. 0,1,6
- e. 6, 10, 14

GMC 2023

1. A researcher wants to conduct a study on fetal outcome in pregnant diabetic ladies. He only includes women with live term fetus with cephalic presentation and excludes women with fetal anomalies, IUGR, hypertension, anemia, other maternal disorders and fetal mal presentation. Which is the most suitable sampling method for this study?

- a. Convenience b. Cluster sampling
- c. Quota d. Simple random
- e. Snowball

2. A researcher wants to conduct a study on sugar mill workers of KPK regarding occupational hazards and safety. Which best sampling method for this study?

- a. Convenience b. Cluster sampling
- c. Quota d. Simple random
- e. Snowball

3. A researcher wants to conduct a study on people living with STDs. Which is the best sampling method for finding the people?

- a. Convenience b. Purposive
- c. Quota d. Simple random
- e. Snowball

4. Study was conducted in GMC to know about favorite sport of students and majority of students declared cricket sport. Which type of variable is this?

- a. Continuous b. Interval c. Nominal
- d. Ordinal e. Ratio

5. In a descriptive study the sample mean for serum cholesterol level is 150 and standard error is 5. What is the 95% confidence interval for population mean?

- a. 145 to 155 b. 140 to 155

c. 140 to 160

d. 150 to 160

e. 205 to 235

6. A tehsil is divided into 5 union councils . Out of which two chosen randomly for a survey and all the subjects in the chosen union councils were studied .what type sampling technique is this?

a. Cluster sampling

b. Convenient sampling

c. Simple random sampling

d. Stratified random sampling

e. Systematic random sampling

7. A researcher recorded the IQ level of 100 students. He wants to present the results geographically for quick understanding of frequency distribution. Which of the following graph will be best for presenting this type of data?

a. Cumulative frequency graph

b. Histogram

c. Ogive curve

d. Pie chart

e. Venn diagram

8. A study was conducted in a medical college and BMI of students was recorded. Data is as following 20,21,19,22,21,23,43. Which measure of central tendency is unlikely to be affected by outlier?

a. Mean

b. Median

c. Range

d. Standard deviation

e. Variance

9. In study carried out in the hospital ward, first patient was chosen randomly and then 10th admitted patient was included in the sample. Which sampling procedure is this?

a. Convenient sampling

b. Quota sampling

c. Snowball sampling

d. Stratified sampling

e. Systematic sampling

10. A research study was conducted in America. The mean cholesterol levels of the two groups were compared to determine whether the measurements

were significantly different or not .What is the most appropriate statistical test?

a. ANOVA

b. Chi square test

c. Pearson Correlation

d. Regression analysis

e. T test

11. In a class of 140 medical students, the mean systolic blood pressure was found to be 120 mmHg with a standard deviation of 5 mmHg .If the blood pressures in this sample are normally distributed. What portion of medical students will have systolic blood pressure above 130 mmHg?

a. 0.5%

b. 2.4%

c. 5%

d. 16%

e. 32%

12. A large study in a hospital was conducted to find association between cigarette smoking and bladder cancer .Bladder cancer patients with past history of Schistosomiasis infection is ?

a. Confounding variable

b. Dependent variable

c. Independent variable

d. Outcome variable

e. Predictor variable

13. A study was conducted to assess the weight of students of 4th year in 10 medical colleges .The value of heights ranges between 55-75lbs .what type of data it is?

a. Both qualitative and quantitative data

b. Categorical data

c. Continuous data

d. Discrete numerical data

e. Nominal data

14. A study was conducted to assess the height of students of 4th year in 10 medical colleges .the value of heights ranges between 5.5- 5.10 feet . which graph should be used by the researcher to present the obtained data?

a. Bar chart

b. Histogram

- c. Line graph
- d. Pie chart
- e. Scatter diagram

15. After arranging the data in ascending or descending order of magnitude, what the value of middle observation is observed?

- a. Geometric mean
- b. Mean
- c. Mean deviation
- d. Median
- e. Mode

16. The area between two standard deviation on either side of the mean ($\bar{X} \pm 2SD$) in a normal distribution is repeatedly to be the same by statistician in case of continuous physiological variable. How much percentage of values in the distribution lie in this area?

- a. 68%
- b. 95.4%
- c. 99.7%
- d. 100%
- e. 90%

17. In a descriptive study the mean is 200 and the standard error is 5. What would be the 95% confidence interval?

- a. 180-200
- b. 190-200
- c. 180-210
- d. 200-220
- e. 190-210

18. Researcher wants to know which of the two groups has more dispersion of the values. For this purpose he uses coefficient of variance. Which of the following two measures are used in coefficient of variance?

- a. IQR & Mean
- b. Median & SD
- c. Mode & SD
- d. Percentile and IQR
- e. SD & Mean

19. A sampling frame is a list of all members of which of the following populations?

- a. Demographic population
- b. Midyear population
- c. Reference population
- d. Study population
- e. Target population

20. A researcher wants to study association between ethnicity and heart disease in a population. He wants to generalize results of study to target population. Which kind of sampling method will he use?

- a. Quota
- b. Simple random
- c. Snowball
- d. Stratified
- e. Systematic

21. A researcher wants to study the difference between sample and population mean values. He studies the IQ level of a sample of 40 medical students. Mean of the sample was 100 with SD of 10. What is the most appropriate statistical test for this study?

- a. ANOVA
- b. Chi square test
- c. Pearson Correlation
- d. t test
- e. z test

22. A researcher wants to study association between ethnicity and breast cancer. He collects data from Asian, African and European regarding his study problem. What is the most appropriate statistical test to calculate association between ethnicity and breast cancer?

- a. ANOVA
- b. Chi square test
- c. Regression
- d. t test
- e. z test

23. A researcher determined the correlation between sugar intake and body weight. What is the most appropriate statistical test used to establish the sugar intake as independent variable for predicting body weight as dependent variable.

- a. ANOVA
- b. Chi square test
- c. Pearson Correlation
- d. t test
- e. z test

24. When the standard for accepting the difference was at p-value of 0.05 and the calculated value was 0.01, the null hypothesis was rejected by the researcher. What do you think of results?

- a. Alternate hypothesis is wrong
- b. Beta error is high
- c. No difference

- d. Significant difference
- e. Wrongly rejected

NWSM 2023

1. Number of women in Lahore newly diagnosed with heart disease in 2022 divided by estimated number of women living in Lahore on July 1, 2022

This fraction is an example of:

- a. Incidence rate
- b. Point prevalence.
- c. Period prevalence
- d. Mortality rate
- e. Case fatality rate

2. Asad, a 25-year-old hiker, encountered a rabid raccoon while camping in a forest. During the encounter, he received a bite on his arm from the rabid raccoon but managed to avoid a full puncture.

What is the most appropriate and comprehensive post- exposure prophylaxis (PEP) for Asad?

- a. Immediate administration of a tetanus shot and close monitoring of his condition
- b. Waiting for any signs of rabies symptoms to appear, then starting PEP if necessary
- c. Thoroughly washing the exposed wound and observing for 7 days
- d. Immediate administration of rabies vaccine and rabies immune globulin (RIG)
- e. Initiating prophylactic antibiotics and administering a single dose of rabies vaccine

3. A number of passengers on a ship from Pakistan to the Saudia Arabia have recently developed a gastrointestinal illness compatible with norovirus (formerly called Norwalk-like virus). Testing for norovirus is not available. Assuming you are the epidemiologist called on to board the ship and investigate this possible outbreak, your case definition should include, at a minimum:

- a. Probable cases
- b. Suspected cases
- c. Clinical criteria, plus specification of time, place, and person

- d. Clinical features, plus the exposure(s) you most suspect
- e. The nationally agreed standard case definition for disease reporting

4. To study the causes of an outbreak of aflatoxin poisoning in Africa, investigators conducted a case-control study with 40 case-patients and 80 controls. Among the 40 poisoning victims, 32 reported storing their maize inside rather than outside. Among the 80 controls, 20 stored their maize inside. The resulting odds ratio for the association between inside storage of maize and illness is:

- a. 3.2
- b. 5.2
- c. 12.0
- d. 33.3
- e. 44.3

5. A Women's Health Study, in which researchers enrolled 41,837 women in 1986 and collected exposure and lifestyle information to assess the relationship between these factors and subsequent occurrence of cancer. It is an example of which type of study?

- a. Experimental
- b. Cohort
- c. Case-control
- d. Clinical trial
- e. Case-series

6. Many of the students at the boarding school, including 6 just coming down with varicella, went home during the winter break. About 2 weeks later, 4 siblings of these 6 students (out of a total of 10 siblings) developed varicella. The secondary attack rate among siblings was, therefore,

- a. 4/6
- b. 4/10
- c. 4/16
- d. 6/10
- e. 4/20

7. In a survey of 10,000 IV drug abusers in town A, 1,000 turn out to be infected with hepatitis C and 500 infected with hepatitis B. During two years of follow-up, 200 patients with hepatitis C infection and 100 patients with hepatitis B infection die. Also during follow- up, 200 IV drug abusers acquire hepatitis C and 50 acquire hepatitis B. Which of the

following is the best estimate of the annual incidence of hepatitis C infection in IV drug abusers in town A?

- a. 1000/10000
- b. 1100/10000
- c. 100/10000
- d. 100/9000
- e. 100/9800

8. The physical examination records of the incoming first-year class of 1935 at the University of Minnesota are examined in 1980 to see whether the freshmen's recorded height and weight at the time of admission to the university were related to their chance of developing coronary heart disease by 1981. Identify the study design.

- a. Case Control
- b. Prospective cohort
- c. Retrospective cohort
- d. Clinical Trial
- e. Ecological

9. A person had received full course of anti-rabies vaccine one and a half years back. Now he was bitten by a stray dog. What is the most appropriate option to protect that person against rabies? (there is no facility to check the rabies neutralizing antibodies).

- a. Anti-rabies immunoglobulin within 24 hours
- b. Cell culture vaccine one intramuscular injection on day 0 and second injection on day 3
- c. Full course of 5 injections of cell culture vaccine
- d. Give both active and passive immunization
- e. No vaccine is required because person is already vaccinated

10. In 2001, a total of 15,555 homicide deaths occurred among males and 4,753 homicide deaths occurred among females. The estimated 2001 midyear populations for males and females were 139,813,000 and 144,984,000, respectively. Calculate the homicide-related death rates for males.

- a. 9.1 homicide deaths / 100,000 population among males

- b. 11.1 homicide deaths / 100,000 population among males
- c. 13.1 homicide deaths / 100,000 population among males
- d. 15.1 homicide deaths / 100,000 population among males
- e. 17.1 homicide deaths / 100,000 population among males

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- b. 11.1 homicide deaths / 100,000 population among males
- c. 13.1 homicide deaths / 100,000 population among males
- d. 15.1 homicide deaths / 100,000 population among males
- e. 17.1 homicide deaths / 100,000 population among males

12. The prevalence of mental disorders is one of the important health problems worldwide.

According to WHO what proportion of people in the world will be affected by mental or neurological disorders at some point of their lives?

- a. 1%
- b. 3%
- c. 2%
- d. 5%
- e. 4%

13. A 10 year old child admitted in ICU with 1 month history of fever and irritability. A week back he developed sudden onset of GTC fitz with loss of consciousness. He was admitted in tertiary care hospital where was diagnosed as a case of TBM on MRI and CSF R/E. He responded to the treatment well. Attendants ask you how long will the ATT medications be continued.

- a. 12 months
- b. 9 months
- c. 6 months

- d. 18 months e. 10 months

14. The incidence of diabetes mellitus in a population with very little migration has remained stable over the past 40 years (55 cases per 1000 people per year). At the same time, prevalence of the disease increased threefold over the same period. Which of the following is the best explanation for the changes in diabetes occurrence measures in the population?

- Increased diagnostic accuracy
- Poor event ascertainment
- Improved quality of care
- Increased overall morbidity
- Loss at follow-up

15. A 52-year-old Caucasian female presents to your office with a self-palpated thyroid nodule. After the appropriate work-up, fine-needle aspiration (FNA) of the nodule is performed. The FNA result is negative. As you are explaining the test result, the patient asks, "What are the chances that I really do not have cancer?" You reply that the probability of thyroid cancer is low in her case because FNA has a high:

- Specificity
- Sensitivity
- Positive predictive value
- Negative predictive value
- Validity

16. A serologic test is being devised to detect a hypothetical chronic disease. Three hundred individuals were referred to a laboratory for testing. One hundred diagnosed cases were among the 300. A serologic test yielded 200 positives, of which one fourth were true positives. Calculate the sensitivity of this test. (After setting up the appropriate 2 by 2 table, find missing data by subtraction)

- 50%
- 60%
- 70%
- 80%
- 90%

17. In 2020, a total of 15,555 homicide deaths occurred among males and 4,753 homicide deaths occurred among females. The estimated 2020 midyear populations for males and females were 139,813,000 and 144,984,000, respectively. What type(s) of mortality rates can you calculate from above scenario?

- Proportionate and cause specific mortality.
- Proportionate and area specific mortality.
- Cause and age-specific mortality rates
- Cause and race-specific mortality rates
- Cause and sex-specific mortality rates

18. You are investigating the role of physical activity in heart disease, and your data suggest a protective effect. While presenting your findings, a colleague asks whether you have thought about confounders, such as factor X. Under which of the following conditions could this factor have confounded your interpretation of the data?

- It is a risk factor for some other disease, but not heart disease.
- It is a risk factor associated with the physical activity measure and heart disease.
- It is part of the causal pathway by which physical activity affects heart disease.
- It has caused a lack of follow-up of test subjects.
- It may have blinded your study.

19. Sarah, a veterinarian, was treating an injured dog that was brought into her clinic. During the examination, the dog unexpectedly bit her on the hand. A few days later, she started experiencing symptoms. What is the most common mode of transmission for rabies in Sarah's case?

- Ingestion of contaminated food or water
- Sexual contact with an infected individual
- Airborne respiratory droplets
- Direct contact with saliva from an infected animal through a bite or scratch
- Blood transfusion from an infected donor

20. British investigators conducted a study to compare measles-mumps-rubella (MMR) vaccine history among 1,294 children with pervasive development disorder (e.g., autism and Asperger's syndrome) and 4,469 children without such disorders. (They found no association.) This is an example of which type of study?

- a. Experimental
- b. Cohort
- c. Case-control
- d. Clinical trial
- e. Case-series

21. Several tests have been developed to measure serologic markers of breast cancer. The sensitivity and specificity for diagnosis of early stage breast cancer vary from test to test. If positive, which of the following tests will have the highest predictive value for the disease?

- a. Sensitivity-80%, specificity - 90%
- b. Sensitivity-65%, specificity - 97%
- c. Sensitivity-70%, specificity - 94%
- d. Sensitivity-75%, specificity-92%
- e. Sensitivity-85%, specificity-90%

22. The entire population of a given community is examined, and all who are judged free of bowel cancer are questioned extensively about their diet. These people are then followed for several years to see whether their eating habits will predict their risk of developing bowel cancer. Identify the type of study design.

- a. Case Control
- b. Cross sectional
- c. Prospective cohort
- d. Retrospective cohort
- e. Clinical Trial

23. A study in which children are randomly assigned to receive either a newly formulated vaccine or the currently available vaccine and are followed to monitor for side effects and effectiveness of each vaccine. It is an example of which type of study?

- a. Experimental
- b. Observational
- c. Cohort
- d. Case-control
- e. Case-series

24. Number of women in town of Peshawar who reported having heart disease in recent health survey divided by estimated number of women residents of Peshawar during same period. This fraction is an example of:

- a. Incidence proportion
- b. Incidence rate
- c. Prevalence
- d. Mortality rate
- e. Cause specific mortality rate.

KGMC 2023

1. If student performing t test for the comparison of mean and $p=0.0256$ then

- a. We reject H_0 and accept H_1
- b. We accept H_0
- c. We reject H_1
- d. We accept H_0 and reject H_1
- e. We cannot decide

2. The fundamental statistical indicators used in normal standard curve are :

- a. Mean and standard deviation
- b. Median and standard deviation
- c. Median and mode
- d. Variance and median
- e. Variance and mode

3. The media of the series of numerical value :

- a. Equals to average
- b. Graph or chart
- c. A number
- d. A frequency table
- e. measure of uncertainty

4. if the average of series of values is 10 and their variance is 4 then the co-efficient of variation (ratio of standard deviation/ average. is

- a. 40%
- b. 20%
- c. 80%

- d. 10% e. 5%

5. If a series of value consist of 21 numbers then for finding the media we order the values in ascending order and we use :

- The 11 value in ordered series
- The median b/w 10 and 11 value
- The median b/w 11 and 12 value
- The 10th value is in ordered series
- The difference b/w highest and lowest

6. The first quartal of a series of value is

- The value in the order series located at 25% of number of value in the series
- The value of order serie located 75% ...
- The numeric value for which a quarter a of series value are lower
- The numeric value for which a quarter a of series value are higher
- The value seperating 25 % of value from data set

7. Pearson corelation co-effiient denoted by small r measures :

- Scattering strength of data for statistical series
- The strength if correlation b/w mean and median
- The strength of correlation b/w 2 numerical parameters
- The tendancy of simultaneous inc or dec or inverse evaluation for 2 nominal parameters
- The tendancy to estimate one product value from another

8. The correlation coefficient compute for Z parameter measured in 429 participants is $r=0.829$

- Parameters are directly correlated ,the link is weak, r is positive close 0
- 2 parameters are directly correlated link is strong , r is positive close to 1
- Inversely link ,link is strong , r is negative close to 1
- Sample less than 30 so no correlation

9. The confidence interval for mean calculated for a series of values has the interpretation

- The true mean the one that aproximate the population mean is almost certain inside the confidence interval
- The true variance is almost certain inside the confidence interval
- The true median is almost certain inside the confidence interval
- It is an interval that contain almost all the values of the series
- Its spaculated value and need further investegtion

10. The student's test is a

- Parametric test
- Non parametric test
- Test for comparing values
- Test for comparing variances
- Predictive test

11. The result of statistical test,denoted p ,shall b interpreted as follows

- Null hypothesis H_0 is rejected if p is less than 0.05
- Null hypothesis H_0 is rejected if p is greater than 0.05
- Alternated hypothesis H_1 is rejected if p is greater than 0.05
- Null hypothesis H_0 is not related to it
- Null hypothesis H_0 is accepted if p is greater thn 0.05

12. An investigator inspects that use of acetaminophin in pregnancy increases the risk of neural tube defects.the risk of neural tube defect due to use of acetaminophen during pregnancy in whole population is 1:1000.what study design can be used for hypothesis

- Crossectional study
- Cohort study
- Clinical study
- Casecontrol study

13. Epidemic occurring every 3 years is called ?

- a. Seasonal trend
- b. Cyclical trend
- c. Pandemic
- d. Alternate epidemic
- e. Secular pandemic

14. In calculation of incidence denominator is

- a. Mid year population
- b. Total population
- c. Population at risk
- d. Healthy population
- e. Diseased population

15. A study was conducted in which one group was women with infants with ntds using acetaminophen and others without neural tube defects also using acetaminophen. which measure of association is used ?

- a. Odds ratio
- b. Relative risk
- c. Attributable risk
- d. Privilance
- e. Hazard Ration

16. At a specific hospital patient diagnosed with pancreatic carcinoma are asked about their current smoking status . At the same hospital patient without pancreatic carcinoma are also asked about their current smoking status. The following table is constructed. P. Pancreatic Ca/ non PC
 . smoker : a.50 / b. 60 ..110 .non smoker. c.40 /d.80 ...
 120 . .total .90 /
 140 = 230 .what is the odds ratio that a patient diagnosed with pancreatic cancer is a current smoker compared to patient without pancreatic cancer. a. 3 b. 2. c. 1.67 d. 1.2. e. 1.981.

17. The purpose of double blind or double masked studies is to

- a. Achieve comparibikity of treated and untreated subjs
- b. Reduce the effects of sampling variation
- c. Avoid observe and subject biased
- d. Avoid observer biased and sampling variation
- e. Avoid confounding

18. Randomization of study subjects in a clinical trial is helpful for controlling

- a. Recall bias
- b. Non compliance
- c. Placebo effect
- d. Effect modification (interelation.
- e. Confounding

19. City population was 100,000 and total no of deaths reported in 2019 were 1000.

Total TB cases were 300 and no of deaths due to TB were 60. the crude mortality rate is ,

- a. 300 per 1000
- b. 600 per 1000
- c. 100 per 1000

20. The cancer and steroid hormone study in whivh women with breast cancer and a comparable grup of women without breast cancer were asked about their prior use of oral contracpetives is an example of which type of study

- a. Clinical trial
- b. Cohort study
- c. Cross sectional survey
- d. Case control study
- e. Ecological study

21. Framingham study , in which grp of residents since 1950 to identify occurance and risk factors for heart disease .. type of study is

- a. Case control
- b. Cohort study
- c. Cross sectional
- d. Experimental
- e. Randomized control trial

22. In a case control study the association was shown between smoking and risk of Parkinson disease . Which odd ratio is correct ?

CASE. Control SMOKERS. 30. 55

Non smoker 70 45

- a. 2
- b.0.35
- c. 1.83
- d. 0.55
- e. 1.22

23 . Standard deviation:

- a. Is square root of variance
- b. measures as unit of variance
- c. measure as square unit of variance
- d. Values compared with average values
- e. Same as variance

24. in a medical research cross section means:

- a. To compare similar group of patients
- b. To determine the prevalence of disease
- c. To determines the efficacy of drug
- d. To determine the side effect of a drug
- e. Placebo controlled study

25. Most common method of minimizing recall bias is to select:

- a. Healthy control group
- b. Disease control group
- c. Age match control group
- d. Sex match control group
- e. Control group from same base population which give rise to cases

KMC 2023

1. Twenty people were having liver carcinoma and medical record confirmed a past history of chronic hepatitis infection in 18 of these individuals. What is the Attributable Risk of developing liver carcinoma in people with a history of chronic hepatitis infection?

- a. 2/18
- b. 16/18
- c. 18/2
- d. 18/20
- e. 20/18

2. The soldiers of Gulf war were observed from April 1991 till July 2002, while 50,000 troops who served elsewhere during the same period were also observed for the occurrence of cancers. What is the epidemiological study design in this scenario?

- a. Case control study
- b. Cohort study
- c. Cross sectional study
- d. Quasi experimental study
- e. Randomized control trial

3. A public health expert wants to study the load of hypertension in Abbottabad district to establish special screening and treatment services. Which study design is more useful for this?

- a. Case control study
- b. Case report
- c. Cohort study
- d. Cross sectional study
- e. Experimental study

4. A sample of 100 men showed mean blood urea levels of $x = 20$ mg/dl and one (1) Standard deviation of 5 mg/dl. What is the probability that the population mean 'u' will be between 10 and 30?

- a. 0.16
- b. 0.20
- c. 0.50
- d. 0.68
- e. 0.95

5. In a chi-square test, the observed and expected values are related by which of the following fact?

- a. Each ration observed
- b. No expected can equal an observed
- c. Each ration observed less than 1
- d. Each ratio observed greater than 1
- e. Their sums must be equal

6. In a standard statistical test, what is the hypothesis being tested called?

- a. Alternative hypothesis
- b. Null hypothesis
- c. Research hypothesis
- d. Test hypothesis
- e. Wrong hypothesis

7. If after performing a student t test for comparison of means, we obtain $p = 0.0256$, which of the following statement about hypothesis testing is correct?

- a. We accept H_0
- b. We cannot decide
- c. We reject H_0 and accept H_1
- d. We reject H_1
- e. We accept H_1

8. A study was done over 1000 individuals to establish the relationship between high coffee consumption and gastritis. The correlation coefficient computed for the two parameters was "0.829. What does this show?

- a. There is no association between the two parameters
- b. The two parameters are directly correlated and the link is weak
- c. The link is strong
- d. Parameters are inversely and the link is strong
- e. Parameters are inversely and the link is weak

9. A research study was conducted to determine the most common age of patients with colorectal cancer that was found to be 58 years. The researchers published the data graphically. What would be the most likely shape of this frequency distribution?

- a. Bell shaped gaussian curve
- b. Bimodal
- c. Negatively skewed
- d. Positivity skewed
- e. Straight line

10. A researcher wants to know about the Blood hemoglobin levels of school going children and compares it with normal hemoglobin levels. The population standard deviation is not known although data follows normal distribution. For obtaining P-value to see any statistical significance, which of the following statistical test will be applied?

- a. Chi square test
- b. One sample paired sample t-test
- c. One sample unpaired t-test
- d. Two sample t test
- e. Z test

11. A sample of 160 urban and 150 rural women were randomly surveyed and asked about their practice of contraception in relation to education level. The data obtained is summarized in the

following table. What will be the most appropriate test to accept or reject the null hypothesis in this case?

- a. Chi square test
- b. One sample paired sample t-test
- c. One sample unpaired t-test
- d. Two sample t test
- e. Z test

12. An analysis of the race of patients who visit an emergency room reveals that 40% are white, 25% are black 20% are Native American, and 15% are Asian. Which of the following graph is best suitable to depict this data?

- a. Histogram
- b. Normal curve
- c. Pie chart
- d. Scatter plot
- e. Venn diagram

13. In a class of 100 medical students, the mean systolic blood pressure was found to be 126 mm Hg with a standard deviation of 6 mm Hg. If the blood pressures in this sample are normally distributed, what portion of the medical students will have systolic blood pressures above 132 mm Hg?

- a. 0.5%
- b. 2.5%
- c. 5%
- d. 16%
- e. 32%

14. In stratified sampling after identifying different strata, which of the following sampling technique can be used to include subjects in the sample?

- a. Consecutive
- b. Convenience
- c. Purposive
- d. Simple random
- e. Multistage

15. A study was done to find the prevalence of smoking to medical students. The researcher found some bias in his results which he attributed to the sampling technique, which of the following technique he might use?

- a. Cluster sampling
- b. Multistage sampling
- c. Simple random sampling
- d. Stratified sampling
- e. Systematic sampling

16. A growth chart was displayed to trainees of pediatrics showing Growth of 24 months old babies, between R5th and 75th percentile, what is this statistical term known as?

- a. Confidence interval
- b. Inter quartile range
- c. Percentile
- d. Standard deviation
- e. Variance

17. crude rates are easy to calculate and consist of crude birth rates and crude death rates. what will be the denominator for calculation of crude birth rate?

- a. Birth rate minus death rates
- b. Mid year population
- c. Number of live births in area
- d. population at risk
- e. total births in the area

18. In an outbreak of food poisoning in a union council of 3500 population, 30 cases of food poisoning had occurred after attending a wedding ceremony with 6 deaths. what is the case fatality rate in the scenario?

- a. 10%
- b. 20%
- c. 30%
- d. 40%
- e. 50%

19. Two groups of patients 100 each, undergoing surgery was given antibiotic A and B respectively. After follow up 20 patients in group A developed infection and 5 in group B. which type of study is this?

- a. Case control study
- b. Cross sectional study
- c. Cohort study
- d. Non randomized trail
- e. Randomized trail

20. A researcher wants to perform screening for undiagnosed, undetected cases of hepatitis B, and carriers of disease by rapidly applying tests and

procedures, What will happen if the cutoff point is raised in Screening tests?

- a. Sensitivity increases and specificity decreases
- b. Sensitivity decreases and specificity increases
- c. Sensitivity and specificity both will increase
- d. Sensitivity and specificity will remain same
- e. Sensitivity and specificity both will decrease

21. A researcher is interested in recording the number of individuals in a particular geographic region who had a common cold at some point during the month of February 2015. which of the following measures of morbidity would be the most appropriate in answering this question?

- a. Cumulative incidents
- b. Incidence density
- c. Incidence risk
- d. Period prevalence
- e. Point prevalence

22. In analytical studies we develop association between risk factors and a disease. Which of the following in case control studies ascertains whether there is an association between exposure status and occurrence of disease?

- a. Attributable risk
- b. Odds ratio
- c. Population attributable risk
- d. P value
- e. Relative risk

23. A researcher wants to establish, cause effect relationship in diabetic patients with their obesity before the onset of diabetes. What type of study he will do?

- a. Case studies
- b. Cross sectional studies
- c. Experimental studies
- d. Prospective cohort studies
- e. Retrospective cohort studies

24. The number of newly diagnosed cases of breast cancer per 100,000 women during a given year is expressed as?

- a. Incidence
- b. Prevalence
- c. Proportion
- d. Rate
- e. Ratio

25. An epidemiologist calculates the relative risk to show the association of tobacco dip (Naswar) with sub mandibular gland carcinoma. What does this rate indicate?

- a. It is the ratio of risk of disease for those exposed and those not exposed to a particular risk factor
- b. Cannot be greater than 1
- c. Shows the percentage contribution that a risk factor makes towards the occurrence of disease
- d. Shows the relationship between a disease and a factor assumed to influence the occurrence of that disease
- e. Shows the relationship between two variables as the risk factor of disease

26. A researcher conducted a study determining the cause effect relationship between COPD and silica. He found that it is more common in miners. What type of variable is occupation in this study?

- a. Confounding variable
- b. Dependent variable
- c. Independent variable
- d. Outcome variable
- e. Output variable

KMC 2024

1: In an outbreak of food poisoning in a union council of 3500 population, 30 cases of food poisoning had occurred after attending a wedding ceremony with 6 deaths..

- a. 10%
- b. 20%
- c. 30%
- d. 40%
- e. 50%

2: A researcher looked at accuracy of the breast cancer self examination in diagnosing breast cancer as compared to mammography and he found that mammography is more accurate in identifying true positive how would you express this epidemiologically?

- a. Mammography should be adopted as the only method of screening for breast cancer
- b. Predictive value of BSE is more or less the same as that of mammography
- c. Sensitivity of BSE more than its specificity
- d. Sensitivity of mammography is more than that of BSE
- e. Sensitivity of BSE is same as that of mammography

3: The occurrence of cancer was identified between April 1991 and July 2002 for 50,000 troops who served in the first gulf war (ended April 1991) and 50,000 troops who served elsewhere during the same period. What is the epidemiological study design in this scenario?

- a. Case control study
- b. Cohort study
- c. Cross sectional study
- d. Quasi experimental study
- e. Randomized controlled study

4: The serum cholesterol levels for three groups of people in a community were recorded in 2020. The mean cholesterol levels of the groups were compared. Which of the following test of significance would you employ to determine whether the measurements were significantly different or not?

- a. Analysis of variance
- b. Chi square test
- c. Pearson's test
- d. Regression analysis
- e. Student's test

5: A public health expert wants to study the load of hypertension in abbotabad district to establish special screening and treatment services. Which study design is more useful for this?

- Case control study
- Case report
- Cohort study
- Cross sectional study
- Experimental study

6: Error and bias are common in any significance testing and one may commit either type 1 error or type II error . Which one of the following specifies type I error?

- Accepting false null hypothesis
- Accepting true null hypothesis
- Either one can be accepted or rejected
- Rejecting false null hypothesis
- Rejecting true null hypothesis

7: Crude rates are easy to calculates and consist of crude birth rates and crude death rates. What will be the deminator for calculation of crude birth rates?

- Birth rates minus death rates
- Mid year population
- Number of live births in population
- Population at risk
- Total births in the area

8: An epidermiologist calculate the relative risk to show the association of tobacco dip (naswar) with submandibular gland carcinoma what does this rate indicate?

- It is the ratio of risk of disease for those exposed and those not exposed to a particular risk factor
- Risk cannot be greater than 1
- Show the percentage contribution that a risk factor makes towards the occurrence of disease
- Shows the relationship between a disease and a factor assumed to influence the occurrence of that disease

e. Shows the relationship between two variables as the risk factor of disease

9: A researcher study was conducted to determine the most common age of patient with colorectal cancer which was found out to be 58 years . The researcher published the data graphically. What would be the most likely shape of this frequency distribution?

- Bell shaped gaussian curve
- Bimodal distribution
- Negatively skewed
- Positively skewed
- Straight line

10: The number of attacks of angina per year in a sample of 50 men with a history of myocardial infarction, aged 50-80 years is an example of which type of variable?

- Nominal variable
- Qualitative continues variable
- Qualitative discrete variable
- Quantitative continues variable
- Quantitative discrete variable

11: Two groups of parents 100 each, undergoing surgery was given antibiotics A and B respectively. After follow up 20 parents in group A developed infection and 5 in group B which type of study os this?

- Case control study
- Cross sectional study
- Cohort study
- Nan randomized trial
- Randomized trial

12: As a medical student you were assigned a research project. In medical statistics which p value is considered significant?

- $P < +1.00$
- $P < 0.5$
- $P > 0.5$
- $P < 0.05$
- $P > 0.05$

13: A researcher conducted a study to determine the association between lung cancer and smoking. The main disadvantage of this study design is recall bias . Whis type of study design is adopted?

- Case control
- Cohort study
- Correlation study design
- Cross sectional study design
- Randomized control trial

14: In a normal distribution curve 95 % confidence interval falls with in which category?

- +1 standard deviation of the mean
- +2 standard deviation of the mean
- +3 standard deviation of the mean
- +4 standard deviation of the mean
- +5 standard deviation of the mean

15: Chi square is one of the test of significance used for hypothesis testing. On which type of data we apply chi square test?

- Quantitative
- Continues
- Discrete
- Categorical
- Confounder

16: The number of newly diagnosed cases of breast cancer per 100,000 women during a given year is expressed as ;

- Incidence
- Prevalence
- Proportion
- Rate
- Ratio

17: A researcher wants to perform screening for undiagnosed undetected cases of hepatitis B and carriers of disease by rapidly applying tests and procedures. What will happen if the cutoff point is raised in screening tests?

- Sensitivity increases and specificity decreases
- Sensitivity decreases and specificity increased
- Sensitivity and specificity both will increase
- Sensitivity and specificity both will decrease
- Sensitivity and specificity will remain same

18: A researcher is interested in recording the number of individuals in a particular geographic region who have a common cold at some point during the month of February 2015. Which of the following measures of morbidity would be most appropriate in answering the ?

- Cumulative incidence
- Incidence density
- Incidence risk
- Period prevalence
- Point prevalence

19: A researcher wants to establish cause effect relationship between diabetes and risk factors. What type of study he will do?

- Prospective studies
- Retrospective studies
- Experimental studies
- Cross sectional studies
- Case studies

20: In epidermiologist association, there are chances of bias and error, this high quality design and methods are used to deal with such outcomes. In order to find association between the number of parity and the down syndrome. What type of variable, maternal age would be?

- Confounding variable
- Constant variable
- Dependent variable
- Independent variable
- Outcome variable

21: A town whose population is 20000 , 70% are Muslims, 20% are christians, 10% Hindus. If a researcher wants to take 10% of population for his study in that area which one of the following is the best sampling technique?

- Cluster sampling
- Purposive sampling
- Simple random sampling
- Stratified random sampling
- Systematic random sampling

22: In our community, coronary heart disease and diabetes are emerging public health problems which needs early diagnosis and prompt treatment. For early identification of cases which of the following is the most economical method of screening?

- High risk screening
- Mass screening
- Multiphasic screening
- Prescriptive screening
- Prospective screening

23: Forth year medical students were engaged in a research study to find the correlation between smoking and lung cancer, while setting objectives for their study , which of the following characteristics of objectives should be kept in mind?

- Complex.
- Costly
- Independent of time
- Measurable
- Over ambitious

24: In a study hypothesis was stated as "increased levels of glycosylated hemoglobin levels for prolonged periods of time in diabetic individuals increased the risk for myocardial infarction. In this study which one of the following statements first the above mentioned hypothesis?

- It is an assumption made before the start of research
- It is conclusion drawn before start of research
- It shows that this hypothesis and null hypothesis are identical in this study
- It shows significance level
- It shows that the above statement is a tested theory

25: Estimation of magnitude of health problem is required for future planning and administrative purposes. Which of the following rate a public health officer will calculate for this purpose?

- Birth
- Death

- Growth
- Incidence
- Prevalence

26: The government wants to collect morbidity data for district in order to allocate resources equitably . However it does not have sufficient human resource and time to conduct a detailed survey. Which one of the following indicator can the government obtain quickly from district hospitals to know about morbidity status?

- Monthly expenditure of the hospital
- Total bed occupancy of a hospital in a month
- Total beds in a admitted patient per month
- Total number of deliveries per month
- Total number of surgeries performed per month

27: In analytical studies we develop association between risk factors and a disease. Which of the following in case control studies ascertains whether there is an association between exposure status and occurrence of disease?

- Attributable risk
- Odds ratio
- Population attributable risk
- P - value
- Relative risk

28: A 6 year old child was brought to the emergency room who while playing in the street at night was bitten on his forearm and face by a known rabid dog . The bite was category III type as classified by world health organization. Which of the following human diploid cell culture intramuscular dosage schedule would you follow?

- 0,1,3,7,14 day
- 0,3,5,7,14,day
- 0,3,7,9,14 day
- 0,3,7,14,28 day
- 0,7,14,28,60 day

5. PSYCHIATRY

PAPER WMC

1. Which mental health disorder is characterized by a rapid development of a global disturbance in cognitive functions?

- a. Anorexia nervosa
- b. Schizophrenia
- c. Bulimia nervosa
- d. Delirium
- e. Depression

2. Mental State examination (MSE) includes all of the following except:

- a. Appearance
- b. Thought
- c. Affect
- d. Cognition
- e. Diagnosis

3. Female recently divorced presented with dizziness, retrosternal chest pain radiating to both arms and occasional difficulty in swallowing. What is the most likely diagnosis:

- a. Esophageal Spasm
- b. Panic attack
- c. Achalasia
- d. Angina pectoris
- e. Esophagitis

4. Delusional disorder is:

- a. Unrealistic fixed beliefs that cannot be changed
- b. Thought broadcasting
- c. Hearing of voices
- d. Crying spells
- e. Thought withdrawal

5. The most prevalent personality disorder in a clinical setting is:

- a. Antisocial personality disorder
- b. Borderline personality disorder
- c. Avoidant personality disorder
- d. Schizotypal personality disorder
- e. Histrionic personality disorder

6. A false sensory perception in the absence of external stimulus is:

- a. Hallucination
- b. Illusion
- c. Delusion
- d. Depression
- e. Stress

7. Social anxiety disorder is most similar to which personality disorder:

- a. Schizoid
- b. Dependent
- c. Antisocial
- d. Avoidant
- e. Narcissistic

8. The degree of awareness and understanding of one's own illness called:

- a. Judgment
- b. Reality testing
- c. Insight
- d. Abstraction
- e. Perception

9. "The world is coming to an end", 'my rain is dead', 'my organs are destroyed. All these are examples of:

- a. Elusion of hopelessness
- b. Delusion of nihilism
- c. Delusion of prediction
- d. Delusion of poverty
- e. Delusion of infidelity

GMC 2023

1. A 19 years old boy was brought to OPD with history of low mood, feelings of guilt, worthlessness, helplessness, loss of interest in daily life activities, decreased energy, and suicidal thoughts. Their parents said that he had these problems for the last 3 months.

- a. Phobia
- b. Anxiety
- c. Depression
- d. Psychosis
- e. Sleep disorder

2. _____ are type of sleep disorders.

- a. Sleep apnoea
- b. Restless legs syndrome
- c. Narcolepsy
- d. all of the following
- e. Both a & b

3. A 45 years old lady is a known case of psychiatric illness for the last 15 years .She presents to OPD with decreased sleep , essured speech , flight of ideas, Excessive pleasure, Elevation of mood , increased activity, singing songs and self - important. She has a history of various episodes of depressed mood ,lack of interest in daily life activities, weight loss,insomnia, fatigue, feelings of worthlessness, and thoughts of suicide.

- a. Panic anxiety disorder
- b. Bipolar affective disorder
- c. Schizophrenia
- d. Post traumatic stress disorder
- e. Depression

4. A 25 year old male presents with auditory hallucinations, paranoid delusions ,flat affect,self neglect,self talking and lack of insight.He has these symptoms for the last 8 years.What is the most likely diagnosis?

- a. Phobic anxiety disorder
- b. Depression
- c. Panic anxiety disorder
- d. Schizophrenia
- e. ALL of above

5. Personality disorders are treated with?

- a Psychotherapy only
- b.Medications only
- c. Both psychotherapy and Medications
- d. Brain surgery
- e. None of the above

6. Emotional intelligence model was made by?

- a. Solvay and mayer
- b. William and Winslow
- c. Maslow and Rogers
- d. Abraham and Farooq
- e. Mcmeham and mitgehan

7. Which is not included in the 5 pillars of emotional intelligence?

- a. Self - awareness
- b. Self - regulation
- c. Empathy
- d. Motivation
- e. Positivity

8. Delirium may be seen in.

- a. High grade fever
- b. Dysentery
- c. Food poisoning
- d. pneumonia
- e. Diarrhea

9. Compulsion is a.

- a. Repetitive thought process
- b. Repetitive behavior
- c. Phobia
- d. perversion
- e. Anthropophobia

10. Obsession is a.

- a. Repetitive thoughts
- b. Change behavior
- c. Phobia
- d. Delusions
- e. Anxiety

11. Defusion is a false belief which ;

- a. Gets corrected when logic is given
- b. Does not corrected even with logic
- c. Is seen in anxiety neurosis
- d. Normal people also experience it
- e. Can induce state of me phoria

NWSM 2023

1. You are called to see a 18 year old young woman in the emergency department. She was admitted following taking an overdose of multiple tablets at home following an argument with her mother. Her family tells you that she has a history of taking overdoses and cutting herself on numerous occasions in the past. She only has 1-2 close friends and seems to not get along with most people. She is described as extremely moody and easily irritable. What would be your most likely diagnosis?

- a. Antisocial personality
- b. Borderline personality
- c. Dissocial personality
- d. Narcissistic personality
- e. Schizotypal personality

2. You see a 26yr old female, university student in your clinics. Her family reports that she has not been engaging well with them, her husband or her family. Her husband states that she has been acting quite bizarre, with reduction in her self-care and hygiene. She has been isolating herself and at times is found to be chanting religious scriptures in a loud voice. She seems to be preoccupied with "the evil eye" and black magic. Her symptoms have been of an acute onset and the only stressor, the family can identify are the birth of her child two weeks ago. What is your most likely diagnosis?

- a. Panic attacks
- b. Paranoid schizophrenia
- c. Personality disorder
- d. Post-partum psychosis
- e. Post-traumatic stress disorder

3. Stress is a condition or feeling experienced when a person perceives that "demands exceed the personal resources the individual is able to mobilize." Stress by itself is not necessarily considered something bad - it all depends on how one takes it. When one does experience higher levels of it, we tend to develop certain symptoms such as,

- a. Beliefs that people are interfering with our mind/body in some way and controlling our thoughts
- b. Feeling happy, more productive, energetic, social and able to take multiple projects at once
- c. Increased sex drive, overspending, grandiosity, increased risk taking and odd religious thoughts
- d. Memory problems, inability to concentrate, focusing on the negatives and increased loneliness.

4. You are asked to review a 18year old college student who has been brought to you by his family. They report him to be very suspicious and constantly preoccupied with conspiracy theories. He feels that the illuminati control the world and all the economies and has claimed that he has been in touch with them through the dark web. He tells you that the heads of the illuminati have secret meetings

all over the world where they plan their next moves of world domination. What would be your most likely diagnosis?

- a. Antisocial personality disorder
- b. Histrionic personality disorder
- c. Narcissistic personality disorder
- d. Obsessive personality disorder
- e. Paranoid personality disorder

5. You see a middle-aged gentleman in your clinic. He appears very irritated and constantly talks over you. He does not understand why he has been brought to the hospital by his family, but feels that this can be because of all the "billions" he has recently inherited from the queen. He believes he is the legitimate heir to the British throne and that is why he needs to hide from everyone including the media. His family report that he has not been sleeping and has been constantly scribbling on pieces of paper at home. What is the most likely diagnosis?

- a. Acute confusional state
- b. Acute stress reaction
- c. Bipolar disorder current episode - manic
- d. Bipolar disorder current episode - hypomanic
- e. Paranoid schizophrenia

6. Arsalan is a 47-year-old man who comes to you for help at the urging of his fiancée. He left the army after serving the country for almost 25 years of his life. His fiancé has told him he has "not been the same since his last posting to a sensitive area and it is impacting their relationship. He is reluctant to share many details of his previous assignments in the military, but describes difficulty sleeping, nightmares, irritability, loss of interests and feeling very jumpy and fearful at times. What would be your most likely diagnosis?

- a. Acute stress disorder
- b. Adjustment disorder
- c. Dis-inhibited social engagement disorder
- d. Post-Traumatic Stress disorder/PTSD
- e. Reactive attachment disorder

7. Peer pressure is considered to be one of the most important cause of drug addiction.

Among the choices given below which one signifies the meaning of "peer pressure"?

- a. Addiction prone personality
- b. Easy availability of narcotics
- c. Influence of colleagues & friends
- d. Stress & family pressure
- e. Personality disorder

8. You see a 48 year old male on the medical ward, who claims that the army is out to get him. He believes that he had been working with America's intelligence agency and had state secrets that very considered very sensitive. He feels that the army personal have changed their appearance and he sees them working in the local general store regularly. He denies any hallucinations or any thought interference. He does not seem to be elated in his presentation. What would be your likely diagnosis?

- a. Acute psychotic episode
- b. Bipolar affective disorder
- c. Delusional disorder
- d. Drug induced psychosis
- e. Paranoid schizophrenia

9. You see a young boy of 12 years of age. His aunt has accompanied him to the clinic and describes an inability to express emotional or physical attachment to others in him. He shows a disinterest in physical or emotional comfort when distressed or a lack of responsive emotions. What would be your most likely diagnosis?

- a. Acute stress disorder
- b. Adjustment disorder
- c. Dis-inhibited social engagement disorder
- d. Post-Traumatic Stress disorder/PTSD
- e. Reactive attachment disorder

10. Pathological loss of memory and filling the gaps with imaginary thoughts refers to:

- a. Delirium

- b. Delusion
- c. Illusion
- d. Confabulation
- e. Hallucination

KGMC 2023

1 . according to mental act kpk, assessment of mental disorder duration is

- a. 21 days
- b. 28 days
- c. 6 months
- d. 3 months

2. The frienzd state of run amok is result of...

- a. Drug induced psychosis
- b. Psychosis due to pregnancy
- c. Psychosis due to antiepileptic drug
- d. Psychosis due to psychotic drug
- e. Psychosis due to general disease

3. 25 yr old male reports shows to be HIV+ while breaking bad news for this patient which of the following is the apl method.

- a. A close friend must accompany
- b. A close relative must accompany
- c. To the patient only
- d. To the close relative only
- e. To the close friends only

5. An 18 yr old medical student presented with 6 months history of spending excessive amount of time in bathing and ablution, he also repeatedly checks locks and makes sure the doors are locked. He admits that his thoughts are irratiennale but feels helpless in resisting the thoughts. What is the diagnosis.

- a. Generalized anxiety disorder
- b. Depression
- c. Schizophrenia
- d. OCD
- e. Impulse conteol disorder

5. A 20 years old male survival of road traffic accident presented with 60 days history of apprehension, sweating, palpitations, and tremors. The patient reports that his brain is bombarded with the images of the traumatic event and he feels unable to get rid of the images. What is the diagnosis

- Depressive illness
- Delusional disorder
- Generalised anxiety disorder
- OCD
- Post-traumatic stress disorder

6. A 20 years old male survival of road traffic accident presented with 60 days history of apprehension, sweating, palpitations, and tremors. The patient reports that his brain is bombarded with the images of the traumatic event and he feels unable to get rid of the images. What is the treatment.

- Quetiapine
- Clonazepam
- Trauma focused CBT
- Psychodynamic psychotherapy
- Electroconvulsive therapy

7. A teacher who is always talking, he does not sleep, aggressive and he has a delusion of grandiosity.

What is the diagnosis?

- Anxiety disorder
- Delusional disorder
- Manic episodes
- Narcissistic personality disorder
- Psychomania

8.19y/o madarassa student presented 2 month history of fearfulness reduced sleep. He believed his family members are plotting against him. He can hear them from his basement although his room is

sound proof. The father denies allegations and reports his son has developed social withdrawal, loss of interest and self neglect

- Schizophrenia
- Mixed affective disorders
- Acute and transient psychosis
- Bipolar disorder
- Depression with psychotic symptoms

9. Which of the following preanesthetic examination point is most likely to hinder the intubation?

- Short incisors
- Mouth opening is 5cm
- Thyromental distance 7 cm
- Overtime
- Neck circumference <16cm

10. The average of series number value is ;

- Sum of values divided by numbers
- Lower than minimum value in series
- Lower than max value in series
- Square root of divide by total value

KMC 2023

1. An officer in-charge of a police station being called for an immediate response in a public park for a person who was suspected to be mentally ill and needs to be taken to a safe place for evaluation, possible care and detention. What is the most appropriate time frame for detention in such cases?

- One week
- seventy two hours
- thirty six hours
- twelve hours
- twenty four hours

2. A person heard strange voices instructing him to kill his own mother with a razor. But he was afraid of doing it then. However, the next day, no voices were heard. He went downstairs, got a razor and cut his mother's throat silently from behind and killed her. What is this condition?

- Catatonic schizophrenia

- b.hebephrenic schizophrenia
- c.latephase schizophrenia
- d.paranoid schizophrenia
- e.schizophrenia simplex

3.A young girl with temporary memory lost has left home In that state of mind and has now ended up in an unexpected place. She has no recall of the past, What is this condition?

- a.Fugue
- b.Shock
- c.Stupor
- d.Trance
- e.Twilight state

4.Feeble mindedness morons, type of mental retardation In which a person can achieve social and vocational skills enough tor minimum self-support. What minimum mental age he has got?

- a.2 years old
- b.3 years old
- c.4 years old
- d.5 years old
- e.6 years old

5.A27-year-old woman witnessed a major automobile accident 2 weeks ago in which a few passengers were killed. Since the accident, she has been experiencing recurrent thoughts of the accident and has recurrent nightmares each night. Lately, she is reluctant to drive an. When she does ride in the car as a passenger she feels overly anxious. The most appropriate diagnosis for this patient is which of the following?

- a.Acute stress disorder
- b.Adjustment disorder
- c.GAD
- d.PTSD
- e.Phobic anxiety disorder

6.A 38-year-old woman presents to your clinic telling you that she has had disturbing, recurrent thoughts about harming her 7-month-old infant. She imagines using a knife to stab her child. Since having these distressing thoughts, she has removed al sharp

objects from her kitchen & would avoid to go to kitchen or hold her child. The most accurate diagnosis for this condition is:

- a.Acute psychosis
- b.Generalized anxiety disorder
- c.Impulse control disorder
- d.Obsessive compulsive disorder
- e.Schizophrenia

7.A student of university has problem in sleep without any major psychiatric illness. The first step in management of this student is:

- a.Benzodiazepine
- b.Melatonin
- c.Sedatives
- d.Sleep hygiene
- e.Zolpidem

8.A 25- years- old man rushes to the emergency department holding his chest with racing heart, difficult breathing sweating, trembling and a constant fear of about to die. His complete physical exam & investigations are normal., He further told he had similar episodes in past almost every week. His condition is best explained by:

- a.Acute stress disorder
- b.Myocardial infarction
- c.Panic attack
- d.Panic disorder
- e.Thyrotoxic crisis

9.An 18- year- old man was brought by his parents to the OPD with suspiciousness, believes that his actions, thoughts are in control of someone else. He hears voices commenting on his behavior when no one is around. He is displaying these symptoms for the last 6 months and his functionality has been affected adversely. What is the most likely diagnosis?

- a.Acute and transient psychosis
- b.Bipolar affective disorder
- c.Delusional disorder
- d.Schizophrenia form disorder
- e.Schizophrenia

10. A 30-year-old man believes that he has been gifted with special powers and will bring change in the whole world. He also believes he is a spiritual figure. He lacks insight into his illness. What psychopathology is he suffering from?

- a. Auditory hallucinations
- b. Border line personality disorder
- c. Delusions of grandiosity
- d. Narcissistic personality disorder
- e. Persecutory delusions

KMC 2024

1: Emotional intelligence is characterized by which one of the following?

- a. Better interpersonal skills
- b. Good sense of humor
- c. High abstract thinking
- d. High critical thinking abilities
- e. Proficient in problem solving

2: When the group disagree over how the work should get done. The type of conflict experienced by this group is

- a. Process conflicts
- b. Relationship conflict
- c. Task related conflict
- d. Traditional conflict
- e. UN - explainable

3: A 25 years old man who is driver by profession and has cannabis abuse for the the last 15 years presented with a serious suicidal attempt from which he survived and remain admitted in ICU for a week. On mental state examination you found that he is still having serious suicidal ideations because of underlying severe depression episode for which he is already taking 40mg and lithium 800 mg per day. He lives alone and although willing to take treatment but he doesn't want to stay longer in psychiatry unit. Which of the following will be your next strategy for treatment of this acutely suicidal patient?

- a. Add some dose of antipsychotic and discharge
- b. Add tricyclic antidepressants and discharge

- c. Give advice to stop cannabis and discharge
- d. Give electro-convulsive therapy if he consents
- e. Start CBT(cognitive behavior therapy)

4: 20 years. Medical student experience episodes of sudden extreme anxiety with palpitations, restlessness, sweating, body tremors and impending fear of death, which last for 20 - 30 mints and spontaneously recovers without any medication. The frequency of these episodes is gradually increasing with out any stressful event. He is appearing in exams next week and has studied well. His symptoms are well explained by which of the following condition?

- a. Death phobia
- b. Dissociative disorder
- c. Malingering
- d. Panic disorder
- e. Thyrotoxicosis

5: A patient who believes that people can actually put their thoughts into his mind is called as;

- a. Brain washing
- b. Delusion of control
- c. Mind reading
- d. Though broadcast
- e. Thought insertion

6: Depression is a common disorder affecting everyone in different stages of life. Mild depression may not need any medication but if the patient has moderate or severe symptoms most of the times on most of the days, he will need to be treated. The symptoms must persist for at least what certain amount of time before we can diagnose it as depressive episode?

- a. At least six months
- b. At least six weeks
- c. At least one month
- d. At least one week
- e. At least two weeks

7: A young girl, age 19 years presented to hospital with impulsivity, self injury behavior, mood swings and benzodiazepine overuse. She says that everyone dislikes her and no body is sincere to her . Her elder sister adds that she behaves this way since her late childhood and has gradually lost all her friends because of her unpredictable behavior. She is most likely suffering from which of the following?

- Adolescence crisis
- Bipolar affective disorder
- Delusional disorder
- Drug addiction
- Personality disorder.

6. MEDICINE

GMC 2023

1. A 31 year old women present to the emergency department with a 1 hour history of sudden onset sever , diffuse headache and vomiting. She has no past medical history. Her observations are recorded as.

- Heart rate 89 breaths per minute
- Blood pressure.145/89 mmHg
- Respiratory rate 18 breaths per minute
- Temperature. 36.9 C
- None of the above

2. What is the next step in your management plan for this patient?

- Urgent CT head
- Oral sumatriptan
- Short burst oxygen therapy
- Urgent lumbar puncture
- Intravenous ceftriaxone

3. You're assessing a patient Glasgow coma scale at the bedside.What is the patients score based on these findings. when you arrive to the patient's bedside the patient eyes are closed,but they open when you speak to the patient,the patient does not respond appropriately to asked and says words that don't make sense .In addition,the patient can't obey a motor command.Therefore , when you apply a

central stimulus the patient moves to locate and remove the stimulus.

- GCS 12 (E3 V4M5)
- GCS 8 (E2 V4M2)
- GCS 11 (E3 V3 M5)
- GCS 10 (E3 V3M4)
- None of the above

4. A 77 years old gentlemen with a history of HTN in the past which was well controlled developed gradual memory loss from the last 1 year. He is getting more forgetful and unable to remember where his car keys are. Few times he got lost on the way home from market. His neurological examination is unremarkable. He is having mini mental score of 19/30. His baseline investigation are all normal including thyroid function tests. His CT brain show age related brain atrophy. What is the most likely diagnosis?

- Microvascular ischemia
- Levy body dementia
- Subdural Hematoma
- Alzheimer's disease
- None of the above

5. A 4- years -old child is receiving treatment for septic meningitis and is now evaluated for complication like syndrome of inappropriate ADH secretion. The appropriate clue to the diagnosis is.

- Uncontrolled seizures
- Low serum calcium
- Serum sodium 126meq/ l
- Uncontrolled vomiting
- Depressed conscious level

6. A college student is brought to the emergency department by friends holding him down. The physician is informed that student has taken some drug and then went crazy. The patient is agitated and delirious. On examination his skin is warm and sweaty and his pupils are dilated, bowel sounds are normal , Tachycardia, marked hypertension,

hyperthermia, increased muscle tone and both horizontal and vertical nystagmus. The management of this patient is likely to include.

- Administration of epinephrine
- Alkalinization of urine
- Atropine to control hyperthermia
- Amitriptyline if psychosis ensues
- Ventilator support and control of seizure (benzodiazepine) + haloperidol

NWSM 2023

1. A 35 year old man developed progressive lower limb weakness and gait ataxia over period of 6 months. Neurological examination demonstrated bilateral lower limb spasticity, increased deep tendon reflexes, and bilateral Babinski signs. Sensory examination showed no sensory level but loss of proprioception and vibratory sensation in both legs with preservation of temperature and pinprick sensations. These findings are suggestive of

- Brown-Séguard syndrome
- Syringomyelia
- Supacute combined degeneration of the cord
- Occlusion of the anterior spinal artery
- Amyotrophic lateral sclerosis

2. A study is conducted of patients who had increased phosphorylated tau and decreased A β peptide in their CSF 5-10 years prior to death at ages ranging from 55 to 80 years. At autopsy their brain weights are less than normal for age and show hydrocephalus and cortical atrophy. Which of the following symptoms is most likely to be recorded in the medical histories of these patients? A Choreiform movements B Gait disturbances C Grand mal seizures D Progressive memory loss E Symmetric muscular weakness

- Choreiform movements
- Gait disturbances
- Grand mal seizures
- Progressive memory loss
- Symmetric muscular weakness

3. A 30 year old woman presents with weekly headaches for the past 4 months. She has a feeling of pressure on both sides of her head. The pain is mild to moderate and lasts an hour. She is able to continue her activities but loses her appetite. She has some photophobia. The fundoscopic examination is normal. What is the most likely diagnosis?

- Cluster headache
- Migraine headache
- Tension-type headache
- Pseudotumor cerebri
- Paroxysmal hemicranias

4. A 63 years old woman undergoes total knee arthroplasty under spinal anesthesia. Two days later she complains of a severe headache. Pain intensity is not related to posture. The least likely cause of this headache is:

- Caffeine withdrawal
- Viral illness
- Migraine
- Post Dural Puncture Headache
- Malingering

5. A patient develops paralysis of the facial muscles on the left side. Neurological exam by her provider reveals that the forehead muscles are not involved. What would be the most appropriate investigation?

- Cerebral Angiography
- CT scan of head
- EEG
- EMG/NCV
- MRI Brain

KMC 2023

1. A 70 year old man presents with loss of memory for recent events. He has forgotten his grandchildren has been unable to manage his personal finances. Also, he has lost his way while driving to familiar locations. Which of the following is the most likely diagnosis?

- Alzheimer disease
- Amyotrophic lateral sclerosis
- Creutzfeldt Jacob disease
- Huntington disease
- Parkinson disease

2. A 35 years old lady is suffering from fever, headache, vomiting and neck rigidity due to rupture of epidermoid cyst in the subarachnoid space. Which of the following is the most probable diagnosis?

- a. Chemical meningitis
- b. Drug induced meningitis
- c. Parasitic meningitis
- d. Rickettsia meningitis

3. A 19 years-old female student living in college hostel presented to ER with 1 day history of fever and headache. On physical examination, her temperature was 39.1 Degree Celsius and her heart rate was 124/min. She was toxic. She had neck stiffness and there were small, purple and non-blanching petechiae on her legs. Lumbar puncture showed elevated opening pressure, elevated protein, pleocytosis and low glucose. What is the likely diagnosis?

- a. Fungal meningitis
- b. Meningococcal meningitis
- c. Subarachnoid hemorrhage
- d. Tuberculous meningitis
- e. Viral encephalitis

4. An 80 years-old female patient with atrial fibrillation came to ER with right sided weakness for the last 1 hour. Her past medical history includes transient ischemic attack, hypertension and diabetes. She was taking warfarin which she stopped after mechanical fall one month back. Her examination showed weakness in both upper and lower limbs on right side. A CT Scan head showed no intracranial bleed. What is the likely diagnosis?

- a. Bacterial meningitis
- b. Encephalitis
- c. Intracranial mass
- d. Ischemic stroke
- e. Subdural hematoma

5. A 20-years-old female patient presented with weakness in both lower limbs which initially started

as numbness in toes. She had diarrhea two weeks back, which resolved by itself. On examination, power was US in lower limbs and deep tendon reflexes were absent in lower limbs, What is the treatment of choice?

- a. Corticosteroids
- b. Intravenous Immunoglobulin
- c. Plasmapheresis
- d. Spinal surgery
- e. Thiamine and B12 administration

6. A 79-years-old man stumbled and sustained a minor head injury 2 weeks ago. He had become increasingly confused, drowsy and unsteady. He had fluctuating GCS scale. He was using warfarin for Atrial fibrillation. What is the most likely diagnosis?

- a. Cerebellar hemorrhage
- b. Epidural hemorrhage
- c. Extradural hemorrhage
- d. Subarachnoid hemorrhage
- e. Subdural hemorrhage

7. A man of 65 years was brought by his family for having lost his way back home several times. He could not recall the events for the past few months. On examination his pulse rate is 70/min regular and blood pressure (BP) 150/90mm Hg. What is the likely diagnosis?

- a. Alzheimer disease
- b. Cerebro vascular disease
- c. Depression
- d. Cerebellar degeneration
- e. Parkinson disease

8. A 45-year-old man presented with recurrent transient ischemic attacks. He had progressive memory loss and right sided monoplegia (right upper limb). On examination, his blood pressure was 170/100 and pulse rate was 100/min, irregularly irregular. His Temperature was 98 F. What is the diagnosis?

- a. Alzheimer disease

- b. Encephalitis
- c. Multi infarct dementia
- d. Parkinsonism
- e. Prion disease

9. A young man of 40 years had recurrent episodes of involuntary movements of the whole body with loss of consciousness for the last one year. He had mouth frothing and urinary incontinence during the episode. He was hemodynamically stable. What is the diagnosis?

- a. Absence seizures
- b. Simple partial seizures
- c. Psychomotor epilepsy
- d. Tonic clonic epilepsy
- e. Status epilepticus

10. An 8 years old boy was brought by his family for episodes of mental disconnection but no involuntary movements. These episodes occurred briefly for a few seconds and increased in severity with the passage of time. What is the diagnosis?

- a. Psychogenic attacks
- b. Absence seizures
- c. Metabolic encephalopathy
- d. Grand Mal epilepsy
- e. Transient ischemic attacks

11. A 20 years old girl was brought to medical emergency with slowly progressing ascending paralysis or lower 39st one week. Clinical examination showed pulse 110/min, BP 100/70 and Respiratory rare Ce/min. Power in lower limb was o/5 and inner imbecile 1/5 Reflexes were absent and planters week 8 mg. She was treated for Acute upper re generator tract infection a week ago. She responded to which of the following treatment over the next 3 weeks?

- a. Broad spectrum antibiotics
- b. Intravenous immunoglobulin
- c. I.V dexamethasone
- d. IV acyclovir
- e. Physiotherapy

12. A 20 years old male presented to you in emergency with history of loss of consciousness for 5 mint after RTA then regain consciousness and after one hour he become unconscious and his right pupil is dilated, What is the diagnosis?

- a. Chornic sub dural hematoma
- b. Extradural hematoma
- c. Intraparenchymal hematoma
- d. Subdural hematoma
- e. Subarachnoid hematoma

13. A one-month-old child presented to you in emergency with history of large head circumference with vomiting. On examination there is shiny skin and dilated veins on scalp and also has sun setting eye. What is your first line of investigation?

- a. BLI,S
- b. CSF RE
- c. CT Brain
- d. MRI brain

14. Making the child hyperventilates for 3 minutes, can occasionally precipitate these seizures, name the seizure type.

- a. Absence seizures
- b. Complex partial seizures
- c. Myoclonic seizures
- d. Tonic clonic seizures
- e. Tonic seizures

15. What is this describing: Transient loss of muscle tone causing a sudden fall to the follow or drop of the head.

- a. Absence seizures
- b. Atonic seizures
- c. Myoclonic seizures
- d. Tonic clonic seizures
- e. Tonic seizures

16. What is this describing: Transient loss of consciousness with abrupt onset and termination, unaccompanied by motor phenomenon except flickering of eyelids and minor alteration in motor tone.

- a. Absence seizures
- b. Atonic seizures
- c. Myoclonic seizures
- d. Tonic clonic seizures
- e. Tonic seizures

KMC 2024

1: An 80 year old female patient with atrial fibrillation came to ER with right sided weakness for the last 1 hour . Her past medical history includes transient ischemic attack, hypertension and diabetes. She was taking warfarin which she stopped after a fall one month back. Her examination show weakness in both upper and lower limbs an right side. A CT scan head showed no intracranial bleed . What is the likely diagnosis?

- a. Bacterial meningitis
- b. Encephalitis
- c. Intracranial mass
- d. Ischaemic stroke
- e. Tuberculous meningitis

2: A 19 year old female student living in college hostel presented to ER with 1 day history of fever and headache. On physical examination her temperature was 39.1 degree Celsius and her heart rate was 124/mint . She was toxic. She had neck stiffness and there small , purple and non blanching petechiae on both her legs . Lumber puncture showed elevated opening pressure, elevated protein, pleocytosis and low glucose. What is the likely diagnosis?

- a. Fungal meningitis
- b. Meningococcal meningitis
- c. Subarachnoid hemorrhage
- d. Tuberculous meningitis
- e. Viral Encephalitis

3: A 20 years old female patient presented with weakness in both lower limbs which initially started as numbness in toes. She had diarrhea two weeks back , which resolved by itself. On examination, power was 0/5 in lower limb and deep tendon

reflexes were absent in lower limbs . What is the treatment of choice?

- a. Antibiotics
- b. Antiviral
- c. Plasmapheresis
- d. Spinal surgery
- e. Thiamine and B12 administration

4: A 79 year old stumbled and sustained a minor head injury 2 weeks ago . He had become increasingly confused drowsy and unsteady. He had fluctuating GCS scale . He was using warfarin for atrial fibrillation. What is the most likely diagnosis?

- a. Cerebellar hemorrhage
- b. Epidural hemorrhage
- c. Extradural hemorrhage
- d. Subarachnoid hemorrhage
- e. Subdural hemorrhage

5: A man 65 years old was brought by his family for having lost his way back home several times. He could not recall the event for the past few months. On examination his pulse rate is 70/mint regular and blood pressure 150/90 mmHg. What is the likely diagnosis?

- a. Alzheimer disease
- b. Cerebro vascular disease
- c. Depression
- d. Hepatic encephalopathy
- e. Parkinson's disease

6: A 45 year old man presented with recurrent transient ischemic attacks . He had progressive memory loss and right sided monoplegia (right upper limb). On examination, his blood pressure was 170/100 and pulse rate was 100/mint irregularly irregular. His temperature was 98F what is diagnosis?

- a. Alzheimer disease
- b. Encephalitis
- c. Multi infarct dementia
- d. Parkinsonism
- e. Prion disease

7: A young man of 40 years had recurrent episodes of involuntary movements of the whole body with loss of consciousness for the last 1 year . He had mouth frothing and urinary incontinence during episode. He was hemo dynamically stable. What is the diagnosis?

- Intoxication
- Migraine
- Psychogenic non epileptic attacks
- Seizures disorder
- TIAs

8: An 8 years old boy was brought by his family for episodes of mental disorders but no involuntary movements. These episodes occurred briefly for a few seconds and increased in severity with the passage of time. What is the diagnosis?

- Atonic seizures
- Absence seizures
- Metabolic encephalopathy
- Psychogenic attacks
- TIAs

9: A 23 years old female was brought by her brother to medical emergency with lower limbs weakness for last 3days . She had also pain and numbness in lower limbs. She was also complaining of retention of urine for last one day . She give no history of fever of any other illness in past one month. Her upper limbs were completely normal. Clinical examination shows sign of upper motor neuron lesion in lower limbs and sensory level at T4 . What is the most probable diagnosis?

- Guillen Barre syndrome
- Multiple sclerosis
- Poliomyelitis
- Pott's disease
- Transverse myelitis

10: A 44 years old female presented with one year history of on and off blurring of vision on hot summer days. Now she is complaining of pin and

needle sensations in right hand and weakness of the left for the past 3 days. What is the most likely diagnosis?

- Ischaemic stroke
- Multiple sclerosis
- Oligodendroglioma
- Transverse myelitis
- Trauma to cervical cord

11: A 20 years old girl was brought to medical emergency with slowly progressing ascending paralysis of lower limbs for last one week. Clinical examination shows pulse 110/mint, BP 100/70 and respiratory rate 22/mint. Power in lower limb was 0/5 and upper limb 1/5 , reflexes were absent and planter were down going. She was treated for acute upper respiratory tract infection a week ago . What is the diagnosis?

- Guillen Barre syndrome
- Hypokalemia periodic paralysis
- Poliomyelitis
- Spinal shock after trauma
- Transverse myelitis.

12: A 22 years old man presented to your clinic with increased talk, disinhibited behavior grandiose delusions, over-religiosity and inability to sleep for the last one month. He some time smoke cigarettes and cannabis also . He had similar episode a few years ago and got better with valproate sodium which he continues for several months. What is the most probable diagnosis in this case?

- Cannabis dependence
- Cannabis intoxication
- Epilepsy
- Manic episode
- Schizophrenia

13: A young patient of 30 years presented to neurosurgery OPD with complaints of pain lower back for the last one month. Which was associated with urinary and bowel incontinence. Patient was also having weakness in both lower limbs and was walking with support. On examination patient was having mixed upper motor neuron signs in both lower limbs and power in both L1 was 4/5 . Which level of Spinal cord might be involved?

- a. Cauda equine region
- b. . cervical cord
- c. Conus area
- d. Dorsal Cord
- e. Lumber cord

14: An 8 years old male child was brought to the OPD with 3 months history of gait problem with frequent falls . He was born to consanguineous parents by NVD at term with immediate cry. His development was normal. One of his 12 years old brother is bed ridden for the last 3 years. Who was previously normal. On examination, high stepping Gait, down going planters, diminished deep tendon reflexes, wasted distal limbs were found. His higher mental function and cerebellar examination are normal. What is the most likely diagnosis?

- a. Guillen Barre syndrome
- b. Hereditary sensory motor neuropathy
- c. Spinal cord tumor
- d. Spinal muscular atrophy
- e. Transverse myelitis

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