DUA:-

"My Lord! open my heart, and make my task easy for me, loosen the knot in my tongue, so that they may understand my speech."

The papers were solved by the following team of khyber pakhtunkhwa medical colleges students.

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KHYBER MEDICAL UNIVERSITY, PESHAWAR
FOURTH PROFESSIONAL MBBS ANNUAL EXAMINATION 2023
BLOCK J (NEUROSCIENCES – 2)

**PAPER CODE B**

**Time Allowed: 120 min.** **Max. Marks: 120**

Note:
- Attempt all questions. Select the best answer from given choices. Handover response sheet along with question paper after attempting
- Use BLUE / BLACK ink only. Do not use RED Color. Filling of more than one option shall not be considered.
- Possession of mobile phone and other electronic accessories are strictly prohibited.

1. A 80 year old female suddenly developed right sided weakness. On examination her BP was normal. Her ECG showed atrial fibrillation. CT scan showed multiple infarcts. What is the most likely cause of stroke in this patient?
a. Arteriosclerosis b. Embolism c. Hemorrhage d. Thrombosis e. Vasculitis

2. A 32 year old male presented with headache, malaise, mental confusion and vomiting. A diagnosis of Meningitis was suspected and Lumbar puncture was performed. CSF examination shows pleocytosis made up of mononuclear cells, an elevated protein concentration with normal glucose level. What is most likely diagnosis?
a. Bacterial Meningitis b. Fungal Meningitis c. Protozoal Meningitis d. Tuberculous Meningitis
e. Viral Meningitis

3. An army officer slowly developed behavioural changes and was not responding to anti psychotic drugs and symptoms were detoriating and also developed chorea and dementia. What is your most likely diagnosis?
a. Alzeihmer Disease b. Huntingtun Disease c. Motor Neuron Disease d. Parkinson Disease e. Prion Disease

4. A 32 years old male suddenly developed seizures and loss of consciousness. CT scan shows a space occupying lesion in the parietal lobe. The tumor was biopsied and showed geographic necrosis with peripheral palisading. What is the most likely diagnosis?
a. Diffuse Astrocytoma b. Ependymoma c. Glioblastoma multiforme d. Meningioma e. Oligodendroglioma

5. A 39 year old female presented with lower limb weakness which was progressive in nature. MRI showed Dural based mass with the lumbar region. On microscopic examination the tumour was composed of spindle cells arranged in whorls. At foci psammoma bodies were also seen. What is your diagnosis?
a. Ependymoma b. Glioblastoma multiforme c. Meningioma d. Medulloblastoma e. Oligodendroglioma

6. Myasthenia gravis is a chronic autoimmune disorder in which antibodies destroy the communication between
a. Nerve and bone b. Neuron and axon c. Nerves and muscle
d. Oligodendrocyte and astrocytes e. Astrocytes and Schwann cells

7. Which type of infarction will occur in brain tissue after thrombotic occlusion of the superior sagittal sinus?
a. Bland infarction b. Fibrotic infarction c. Septic infarction d. White (Non hemorrhagic) infarction
e. Red (Hemorrhagic) infarction

8. A 27-year old patient displays ataxia when asked to walk across the examination room. You ask him to stand still with his eyes closed and note marked swaying back and forth. When he opens his eyes the swaying persists. Vibration sense is normal on all four limbs. Given the clinical picture in this case, such ataxia is likely due to damage to which of the following structures?
a. Dorsal columns b. Cerebral peduncles c. Posterior limb of the internal capsule
d. Ventral horns of the spinal cord e. Cerebellum

9. Your patient is a 14-year-old girl who was sent home from school because she had mild fever, severe headache, and was falling asleep in class. A day later her fever started rising, her mother took her to the emergency room, where blood pressure was recorded to be 60/40 mm Hg and several petechial hemorrhages were found. She was diagnosed with Waterhouse Friderichsen Syndrome. Which out of the following is most likely cause?
a. Haemophilus influenza b. Listeria monocytogenes c. Neisseria meningitidis
d. Streptococcus pneumoniae e. Streptococcus agalactiae

10. A 5-days-old baby boy was delivered by caesarean section after prolonged labor. On fifth day he was brought to the emergency with high grade fever. Examination revealed that nuchal rigidity was positive. He was diagnosed with meningitis, based on CSF findings showing Gram positive cocci in chains. Biochemical tests revealed it to be Streptococcus agalactiae. Based on the scenario, from where would have the child acquired the disease?
a. Colonized birth canal b. Feco-oral route c. Mosquito bite d. Own normal flora e. None of the above

11. A 28-year-old male was admitted with history of seizure preceded by fever and altered mental status associated with severe headache for the past one day. CT scan revealed multiple nodular lesions. There was no history of owning a pet or coming in contact with any other animals. He was suspected to be a case of Cerebral toxoplasmosis. Which out of the following is the most likely mode of transmission?
a. Mosquito bite b. Oocysts in cat feces c. Pseudocysts in meat d. Tsetse fly bite e. None of them

12. A 40 years old male patient is suffering from rabies after dog bite one month back. He has difficulty in drinking water and dyspnea. What pathological changes would you expect in the basal ganglia of this patient?
a. Cowdry bodies b. Lewy bodies c. Negri bodies d. Nissl substance e. Vesicular nuclei

13. 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-hipple lindau disease

14. A 35 years lady is suffering from space occupying lesion in the brain. On CT scan examination there is a tumor in the right cerebral hemisphere. The Histopathologist 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 tangles d. Neuronal plaques e. Rosenthal fibers

15. A 70-year-old man presents with loss of memory for recent events. He has forgotten his grandchildren's names, and he 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?

a. Alzheimer disease b. Amyotrophic lateral sclerosis c. Creutzfeldt-Jacob disease d. Huntington disease e. Parkinson disease

16. A 6 months old baby was brought to neurosurgeon with symptoms of irritability, sleeplessness and vomiting. Baby's head was irregularly large. MRI revealed a tumor near fourth ventricle. Post surgical 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. Chroid plexus carcinoma b. Craniophyrngioma c. Ependymoma d. Glioma e. Pineoblastoma

17. 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. Intraparenchymal region

18. 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 showed 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

19. 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?

a. Bleeding from cerebral amyloid angiopathy b. Hematoma formation from arteriolosclerosis
c. Middle cerebral artery thromboembolism. d. Rupture of an intracranial berry aneurysm
e. Tear of subdural bridging vein

20. A 67-year-old male with a 70-pack-per-year smoking history and hypertension is eating dinner with friends when he suddenly begins to speak in incomplete sentences and with noticeable pauses between small groups of words. He is brought to the emergency room. During his subsequent hospital admission, a follow-up CT scan is performed 24 hours after his arrival at the emergency room. Of the following, which is most likely to be identified

a. Ischemic injury in the superior left frontal lobe b. Ischemic injury in the superior right frontal lobe
c. Ischemic injury in the superior left parietal lobe d. Ischemic injury in the inferior left frontal lobe
e. Ischemic injury in the inferior right frontal lobe

21. A 27-year-old male is partying with friends and snorts cocaine. Shortly thereafter, he becomes unresponsive on the couch. Fortunately, his friends bring him to emergency within minutes. Resuscitation is begun, but a pulse is not restored until they arrive at the emergency room, approximately 20 minutes after he went unresponsive. He does not regain consciousness. One day later, he is pronounced brain dead. An autopsy is performed by a forensic pathologist. Of the following, which change would be identified in the hippocampus.

a. Gliosis b. Red neurons c. Neurofibrillary tangles d. Microglial nodules e. Foamy macrophages

22. A 45-year-old man with AIDS is admitted to the hospital with a productive cough, fever, and night sweats. An X-ray fi lm of the chest shows an ill-defined area of consolidation at the periphery of the right middle lobe and mediastinal lymphadenopathy. A sputum culture grows acid-fast bacilli. The patient develops severe headache and neck rigidity. Which of the following pathogens is the most likely cause of meningitis in this patient?

a. Aspergillus flavus b. Cryptococcus neoformans c. Mycobacterium tuberculosis d. Neisseria meningitidis
e. Toxoplasma gondii

23. A poison which causes excitement and then narcosis is known as:

a. Inebriant b. Somniferous c. Narcotic d. Hypnotic e. Sedative

24. The duration for detention for the purpose of assessment of mental illness, in KPK mental health Act, 2017 is:

a. 21 days b. 28 days c. 3 months d. 4 month e. 6 month

25. A patient of snake bite poisoning is brought to emergency department. On examination, the patient has 2 bite marks and having ptosis, paralysis of extra ocular muscles and convulsions. The bite is most probably by a:

a. Cobra b. Karate Krait c. Pit viper d. Non pit viper e. Sea snake

26. The frenzied state Run Amok is the result of:

a. Drug Induced Psychosis b. Epileptic Psychosis c. Psychosis due to General Disease
d. Psychosis due to Pregnancy e. Psychosis due to Trauma

27. Ultrashort Acting Barbiturates after intravenous administration are quickly redistributed and on chemical analysis are more likely to be detected in:

a. Bile b. Body fat c. Bone d. Muscles e. Skin

28. State of Involutional Melancholia 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. Illusions d. Nihilistic Delusions e. Tactile Hallucination

29. 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. Apneustic breathing b. Biots breathing c. Chyne-Stokes breathing d. Hyperpnea breathing
e. kussmaul breathing

30. 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's disease b. Dementia paralytica c. Korsakoff's psychosis d. Organic psychosis e. Senile dementia

31. 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

32. 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 poisoning

33. Amphetamine causes release of which of the following neurotransmitter in the brain?
a. Aspartate b. Dopamine c. GABA d. Glutamate e. Serotonin

34. A patient with suspected poisoning was brought to the emergency department with vomiting and staggering gate, 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

35. Diminished criminal responsibility with plea of insanity comes under:
a. Section 82PPC b. Section 83PPC c. Section 84PPC d. Section 85PPC e. Section 44 PPC

36. "Right from wrong test" refers to:
a. McNaghten rule b. Durham rule c. Currens rule d. Norwegian system e. American law institute's test

37. Split personality refers to:
a. Anxiety. b. Depression. c. Senile dementia. d. Schizophrenia. e. Low IQ

38. Wernicke's encephalopathy is observed in poisoning caused by:
a. Chronic cocaine poisoning. b. Chronic cannabis poisoning. c. Chronic alcohol poisoning.
d. Chronic lead poisoning. e. Chronic mercury poisoning

39. The hallmark of insanity is:
a. Illusion b. Delusion c. Confabulation d. Delirium e. Hallucination

40. MacEwan's sign is observed in:
a. Lead poisoning b. Ethyl alcohol poisoning c. Methyl alcohol poisoning d. Barbiturate poisoning
e. Datura poisoning

41. In a cohort study, what is the advantage of starting the study by selecting a well defined population for study before any of its members become exposed, rather than starting by selecting exposed and non-exposed individuals?
a. The study can be completed more rapidly b. A number of outcomes can be studied simultaneously
c. A number of exposures can be studied simultaneously d. The study will cost less to carry out
e. The study will be free of biases

42. As the prevalence of a disease in the population increases, what is the effect on positive predictive value ?
a. It becomes lower b. It becomes higher c. It becomes extremely low d. It is not affected e. None of the above

43. A public health expert wants to study the burden 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

44. Suppose GAT scores roughly follows a normal distribution in the Pakistani population of college students. The mean math GAT score is 500 with a standard deviation of 50. Using empirical rule, what % of students will have score between 450 & 550?
a. 99.7% b. 68% c. 95% d. 100% e. 50%

45. A sample of 100 healthy men had a mean HbA1c of 6.5, standard deviation of 0.5. What will be the 95% confidence interval for the population mean?
a. 6.5 + 2 x 0.5/100 b. 6.5 + 5 x 0.5/100 c. 6.5 + 0.1 x 0.5/100 d. 6.5 + 0.01 x 0.5/100 e. 6.5 + 0.05 x 0.5/100

46. It has been suggested that physicians may examine women who use oral contraceptives more often and more thoroughly than women who do not. In such a situation, if an association is observed between phlebitis and oral contraceptive use, then which of the following bias may be present?
a. Selection bias b. Surveillance bias c. Recall bias d. Nonresponse bias e. Neyman bias

47. Cement industry is suspected for more deaths among its workers. So the industrialist gets worried and wants to assess whether more deaths are likely in these workers or not. Which of the following measures of mortality can best be used in this industrial group?
a. Age specific death rate b. Standardized mortality ratio c. Cause specific death rate
d. Proportionate mortality e. Case fatality rate

48. In a chi-square test, the observed and expected values are related by which of the following fact?
a. Ratio of observed/expected is equal to 1 b. No expected can equal an observed
c. Ratio of observed/expected is less than 1 d. Ratio of observed/expected is greater than 1 e. Their sums must be equal

49. Randomization is the best approach in designing a clinical trial in order to:-
a. Achieve predictability b. Achieve unpredictability c. Achieve blinding d. Limit confounding
e. Limit blinding

50. 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 Ho b. We cannot decide c. We reject Ho and accept H1 d. We reject H1 e. We accept H1

51. Several studies have found that approximately 75% of cases of lung cancer are due to cigarette smoking. Which of the following measure is it?
a. An incidence rate b. An attributable risk c. A relative risk d. A prevalence risk e. A proportionate mortality ratio

52. If α = 0.05, what is the value of left-tailed test?
a. 1.96 b. -1.96 c. + 1.645 d. -1.645 e. 2.33

53. The level of significance is the maximum probability of committing which of the following?
a. Type I error b. Type II error c. β. d. μ e. None of the above

54. A new combined chemotherapy and immunotherapy regimen has been shown to significantly prolong survival in patients with metastatic melanoma. If widely implemented, which of the following changes in disease occurrence measures would you most expect?
a. Incidence increases, prevalence decreases b. Incidence decreases, prevalence decreases
c. Incidence increases, prevalence increases d. Incidence does not change, prevalence increases
e. Incidence does not changes, prevalence does not change

55. A study is performed in which mothers of babies born with and without neural tube defects are compared for their acetaminophen consumption during the first trimester of pregnancy. Which of the following measures of association is most likely to be reported by investigators?
a. Prevalence ratio b. Median survival c. Incidence ratio d. Odds ratio e. Hazard ratio

56. The soldiers of Gulf war were observed for cancers from April 1991 till July 2002, while 50,000 soldiers 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

57. 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 "r" = 0.829. What does this show?
a. There is no association between the two parameters
b. The two parameters are directly correlated, and the association is strong
c. The two parameters are directly correlated, and the association is weak
d. The two parameters are inversely correlated, and the association is strong
e. The two parameters are inversely correlated, and the association is weak

58. 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. Positively skewed e. Straight line

59. A researcher wants to know about the Blood hemoglobin levels of school going children and compare 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 t-test c. One sample unpaired t-test d. Two sample t test e. Z test

60. 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?

| Gender | High school | Bachelors | Masters | Total |
|---|---|---|---|---|
| Urban | 50 | 60 | 50 | 160 |
| Rural | 120 | 20 | 10 | 150 |
| Total | 170 | 80 | 60 | 310 |

a. Chi square test b. Correlation coefficient c. Independent sample t-test d. Paired sample t-test e. Z test

61. 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

62. A growth chart was displayed to trainees of pediatrics showing growth of 24 months old babies, between 25th and 75th percentile. What is this statistical term known as?
a. Confidence Interval b. Inter quartile range c. Percentile d. Standard deviation e. Variance

63. 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 rates minus death rates b. Mid-year population c. Number of live births in area d. Population at risk
e. Total births (Live + still) in the area

64. 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 this scenario?
a. 10% b. 20% c. 30% d. 40% e. 50%

65. For the prevention of stroke, a researcher wants to find out undiagnosed cases of hypertension in a community by applying screening test and keeps the cut off point as 100/60. What will be the effect on the outcome of screening test?
a. Sensitivity increases and specificity decreases b. Sensitivity decreases and specificity increases
c. Sensitivity and specificity both will increase d. Sensitivity and specificity both will decrease
e. Sensitivity and specificity will remain same

66. 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 Incidence b. Incidence Density c. Incidence risk d. Period prevalence e. Point Prevalence

67. 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

68. If the research study is based on a socially unacceptable topic then which one is a preferable method of data collection?
a. Group discussion b. Interviews c. Mailed questionnaires d. Questionnaires by interviewer e. Telephone call

69. A researcher conducted a study determining the cause effect relationship between COPD and silica dust. 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

70. 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

71. 40 year of age female admitted in neurology ICU with complaints of acute onset all limb weakness and with areflexia and unable to maintain saturation. Her respiratory rate was 55 per minute and with severe type 1 respiratory failure. Her urgent nerve conduction study was suggestive of acute sensory motor polyneuropathy. What is next best step of management plan to be taken?
a. Plasmaparesis with mechanical ventilation b. iv steroid c. iv antibiotic. d. Observation for next 24 hours e. None

72. A 75 year of age male patient presented with a 5 year history of gradual onset slowly progressive decline in the memory.He is now unable to recall simple names and often cant remember his home address. He is diagnose to be a case of dementia secondary to Alzheimer disease. Presence of which of the following histopathological findings in the brain will confirm this disease?
a. Cholesterol b. Tumor c. Rupture blood vessels d. Plaques and tingles e. None of them

73. A 35 year of age female patient presented to the emergency department with a 1 day history of road traffic accident with hemi section of the cord at thoracic D12 level. Patient was diagnose to be a case of brown sequard syndrome. This disease has all the following findings except?
a. Ipsilateral extensor planter response. b. Ipsilateral pyramidal tract involvement
c. Contralateral spinothalamic tract involvement d. Contralateral posterior column involvement e. All of them

74. 60 year of age male patient presented to the neurology OPD with new acute onset very severe headache associated with severe nausea vomiting and photophobia. His neck stiffness was positive with pulse of 80/minute and blood pressure of 180/90. Which investigation needs to be considered first for urgent diagnosis of the underlying cause?
a. CT brain. b. MRI brain c. CSF routine analysis d. EEG brain e. Ultrasound

75. 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/min. She was toxic. She had neck stiffness and there were small, purple and non-blanching petechiae on both 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

76. 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

77. 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

78. Parkinson's disease is primarily characterized by degeneration of neurons in the
a. Hippocampus b. Substantia nigra c. Cerebellum d. Thalamus e. Corpus callosum

79. Caries spine is caused by bacterium
a. Streptococcus Pneumoniae b. Neisseria meningitis c. Mycobacterium Tuberculosis
d. Mycoplasma Pneumonia e. E-Coli

80. What is the most common initial symptom of Gillian Barre Syndrome?
a. Visual disturbances b. Muscle rigidity c. Ascending muscle weakness d. Hearing loss e. Muscle wasting

81. 32 year old male with history of recent initiation of antipsychotic drugs presented to emergency with sudden sustained muscle spasm of neck muscles resulting in abnormal posturing of the head. Which of the following is the most likely cause of the symptoms:
a. Tardive dyskinesia b. Serotonin syndrome c. Neuroleptic malignant syndrome
d. Acute dystonia e. Antipsychotic overdose

82. 28-year-old woman presents with persistent sadness, feelings of hopelessness, and difficulty bonding with her newborn. After ruling out medical causes, you suspect postpartum depression. What is the most appropriate management strategy for this patient?
a. Immediate psychiatric hospitalization b. Counseling and psychotherapy c. Selective serotonin reuptake inhibitors (SSRIs)
d. Electroconvulsive therapy (ECT) e. Dietary supplements and herbal remedies

83. A 35-year-old patient presents with persistent and excessive worry about having a serious medical condition, despite thorough medical evaluations consistently showing no evidence of such conditions. The patient often seeks reassurance from healthcare professionals and frequently visits various specialists. Which of the following is the most appropriate diagnostic criterion for hypochondriasis in this scenario?
a. Presence of physical symptoms without medical explanation
b. Fear of having a serious medical condition based on misinterpretation of bodily symptoms
c. History of multiple unexplained medical consultations
d. Persistent belief in the presence of a specific serious illness despite medical reassurance
e. Frequent use of online health forums for self-diagnosis and validation

84. In a psychiatric evaluation a 17 year old female with significant weight loss, intense fear of weight gain and distorted body image. She admits restricting food intake and engaging in excessive exercise. She also experiences amenorrhea. Which of the following is MOST indicative of Anorexia nervosa:
a. Body mass index below 18.5 b. Intense fear of gaining weight. c. Excessive exercise
d. Distorted body image e. Amenorrhea

85. In a complex clinical scenario suggestive of Conversion Disorder, which diagnostic feature is most likely to be observed?
a. Elevated inflammatory markers
b. Positive findings on electroencephalogram (EEG)
c. Inconsistencies between reported symptoms and objective clinical findings
d. Abnormalities in cerebrospinal fluid (CSF) analysis
e. Presence of specific genetic markers associated with neurological disorders

86. A 28-year-old woman presents with a history of panic attacks and avoidance of certain situations. She describes intense fear, rapid heartbeat, sweating, and trembling when she thinks about leaving her home or being in crowded places. She often avoids going to the grocery store or taking public transportation. These symptoms have been ongoing for six months and are significantly impacting her daily life. What is the most likely diagnosis for this patient's condition?
a. Social Anxiety Disorder b. Panic Disorder c. Generalized Anxiety Disorder
d. Agoraphobia e. Obsessive-Compulsive Disorder

87. A 30-year-old woman presents with sudden-onset paralysis of her right arm. She reports no history of trauma, and her medical history is unremarkable. Neurological examination reveals inconsistent findings, and there is a lack of appropriate response to sensory stimulation. The patient seems relatively unconcerned about her condition. MRI and other imaging studies show no structural abnormalities. Which of the following is the most likely diagnosis?
a. Conversion Disorder b. Multiple Sclerosis c. Stroke d. Peripheral Nerve Injury e. Myasthenia Gravis

88. A 32-year-old patient presents with persistent low mood, loss of interest, and decreased energy for the past six months. They report feelings of worthlessness and difficulty concentrating. Despite supportive interventions, the symptoms persist. Which factor is most indicative of a poorer prognosis in this case?
a. Age of onset b. Family history of depression c. Response to initial treatment
d. Comorbid medical conditions e. Occupational stressors

89. A 35 years male has presented with complaints of weeping spells, decreased energy, fatigue, decreased confidence, and lack of sleep for the past 20 days. He is having
a. Anxiety disorder b. Depression c. Depression with psychotic features d. Mixed anxiety and depression
e. Obsessive-compulsive disorder

90. 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. Chronic sub-dural hematoma b. Extradural hematoma c. Intra parenchymal hematoma
d. Subdural hematoma e. Subarachnoid hemorhage

91. 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 e. None

92. An 8 days old neonate was brought to the Nursery with complaints of poor feeding and fever for the last 2 days and fits for 1 day. Birth history was not significant. On examination, the baby was febrile and has bulging anterior fontanelle. You suspect him as a case of meningitis. What is the most common organisms for it in this age group?
a. E. Coli b. Streptococcus viridians c. Staph. Aureus d. Listeria Monocytogenes e. Salmonella Paratyphi

93. An 11 years old girl presented to OPD with fever, headache for 4 days and vomiting for the last 2 days. On examination she is febrile, ill looking and has got positive signs of meningeal irritation. Which one of the following investigations will help you in making the definitive diagnosis?
a. Complete Blood Count. b. C.T Brain c. Lumbar Puncture d. C-Reactive Protein e. Serum Electrolytes.

94. A mother brings her 12 years old boy to you. She is concerned that her child is very clumsy and tends to trip a lot. On examination, the child has stork like legs and palpable nerves. Which investigation would establish the definitive diagnosis in this case?
a. Electromyography b. Nerve Conduction Studies c. Muscle Biopsy d. Sural Nerve Biopsy e. Creatinine Kinase

95. A 9-year-old boy begins to have difficulty walking. His condition gradually worsens, and his difficulties with coordination slowly spread to his arms and trunk. Physical examination is notable for an ataxic gait and nystagmus. Friedreich's ataxia is suspected. What is the genetic mode of inheritance on this disease?
a. Autosomal Dominant b. Autosomal Recessive c. X-Linked Dominant d. X-Linked Recessive
e. Mitochondrial Inheritance.

96. A 13 years old girl presented with fever and headache for the last 20 days. She is an unvaccinated child. Her grandfather has been taking medication for the last 2 months for some lung disease. On examination, she is ill looking, drowsy, febrile and neck stiffness is positive. What is the most likely diagnosis?
a. Acute Bacterial Meningitis b. Viral Meningitis c. Tuberculous Meningitis
d. Benign Intracranial Hypertension e. Brain Tumor.

97. Patient who had received epidural catheter for her labour, is brought into OR with ruptured uterus. Your plan of anesthesia?
a. Top up the catheter. b. Give GA c. Combine spinal epidural. d. Single shot spinal. e. Local Anesthesia

98. The most important historical predictor of perioperative cardiac morbidity in patient undergoing non cardiac surgery is:
a. Age. b. Diabetes mellitus c. Hypertension d. Recent myocardial infarction. e. Stable angina.

99. Which of the following is correct about drug succinylcholine
a. Analgesic b. Anti cholinesterase c. Depolarising d. Non Depolarising e. Sedative

100. A 6year 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 (WHO). Which of the following human diploid cell culture intramuscular dosage schedule would you follow?
a. 0, 1, 3, 7, 14 day b. 0, 3, 5, 7, 14 day c. 0, 3, 7, 9, 14 day d. 0, 3, 7, 14, 28 day e. 0, 7, 14, 28, 60 day

101. Which statement about phenytoin is most accurate?
a. Displaces sulfonamides from plasma proteins b. Drug of choice in myoclonic seizures
c. Half-life is increased if used with phenobarbital d. Isoniazid (INH) decreases steady-state blood levels of phenytoin
e. Toxic effects may occur with only small increments in dose

102. Which drug is a full agonist at opioid receptors with analgesic activity equivalent to morphine, has a longer duration of action, and fewer withdrawal signs on abrupt discontinuance than morphine?
a. Fentanyl b. Hydromorphone c. Methadone d. Nalbuphine e. Oxycodone

103. General Anesthetics are used for major and minor surgical procedures. The inhalational anaesthetic with the fastest onset of action is:
a. Enflurane b. Isoflurane c. Methoxyflurane d. Nitrous oxide e. Halothane

104. An eight years old boy needs inhalational anaesthesia for induction of anaesthesia. Which of the following will be a good choice?
a. Methoxyflurane b. Sevoflurane c. Desflurane d. Isoflurane e. Nitrous oxide

105. Regarding adverse effects of local anaesthetic agents, which of the following is most cardiotoxic and should be avoided in patients suffering from underlying cardiac diseases?
a. Mepivacaine b. Lidocaine c. Prilocaine d. Tetracaine e. Bupivacaine

106. A 33-year-old woman has a 15-year history of alcohol abuse. She comes to the emergency department for treatment of injuries received in a fall. She says she has been drinking heavily and almost continuously for 2 weeks, and she wants to stop. Which of the following drugs would most effectively and safely lessen the intensity of her withdrawal syndrome?
a. Buspirone b. Chlordiazepoxide c. Chloral hydrate d. Midazolam e. Zolpidem

107. New and novel drugs have revolutionized the treatment of Parkinson's Disease that aim to increase the efficacy while minimizing the adverse effects. Which of the following is an ergot derivative with agonist activity at Dopamine D1 & D2 receptors mainly in the CNS?
a. Levodopa b. Amantadine c. Pergolide d. Selegiline e. Trihexyphenidyl

108. A 50-year-old male patient with a history of obsessive-compulsive disorder was prescribed MAO Inhibitor by his psychiatrist. Which of the following class of drugs might be having a potential interaction in this case?
a. Beta-blockers b. Calcium channel blockers c. Diuretics
d. Nonsteroidal anti-inflammatory drugs (NSAIDs) e. Selective serotonin reuptake inhibitors (SSRIs)

109. A 30-year-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 norepinephrine
e. It increases the production of serotonin

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

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

**111.** 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

**112.** A 26-year-old woman unexpectedly became pregnant. She had been regularly taking an oral contraceptive medication for several years. Three 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. Carbamezapine b. Clonazepam c. Gabapentin d. Lamotrigine e. Valproic Acid

**113.** Which one of the following benzodiazepines has some antidepressant properties?

a. Alprazolam b. Diazepam c. Lorazepam d. Nitrazepam e. Temazepam

**114.** A 29 year old schizoprenic male, currently under treatment of haloperidol presented with Parkinsonism like symptoms. Which of the following drugs would be a good choice in this case?

a. Levodopa b. Benserazide c. Benzhexol d. Selegiline e. Bromocriptene

**115.** Which of the following drugs/drug classes would be a good choice for the long term management of panic disorder?

a. Phenothiazines b. Aripiprazole c. Benzodiazepines d. Beta blockers e. SSRIs

**116.** 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 the administration of nalbuphine to this patient is 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

**117.** 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

**118.** Which of the following is a sign of toxicity with lithium in the initial days of therapy?

a. Constipation b. Hemorrhage c. Headache d. Tremors e. Weight loss

**119.** 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

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

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