

INI CET 2023 Answer Key PDF

Q1. (c) Washerman hand and nger. Explanation: Washerman hand and finger develop after prolonged immersion, usually postmortem, whereas findings like water in the stomach and froth are typical of antemortem drowning.

Q2. (b) Drunk but inuenced by alcohol. Explanation: The presence of alcoholic smell and congested conjunctiva with normal motor function suggests the person is under the influence of alcohol.

Q3. (c) Alkaloids. Explanation: Alkaloids are responsible for the bitter taste, serving as a natural warning against consuming potentially toxic substances.

Q4. (b) Langer's lines. Explanation: Langer's lines represent skin tension lines important for surgical incisions and forensic analysis, as they affect wound healing.

Q5. (c) Autonomic function of brainstem. Explanation: The autonomic function of the fetal brainstem is primarily responsible for heart rate acceleration in response to stimuli.

Q6. (a) Rhinosporidiosis. Explanation: Rhinosporidiosis is a chronic granulomatous infection caused by *Rhinosporidium seeberi*, presenting as polypoidal nasal masses.

Q7. (c) Radial. Explanation: The Windkessel effect is seen in large elastic arteries like the aorta, not in smaller muscular arteries such as the radial artery.

Q8. (c) Superior vena cava syndrome. Explanation: Superior vena cava syndrome is not a typical complication of thyroid swelling; it is more commonly due to mediastinal masses.

Q9. (a) Arsenic. Explanation: Chronic arsenic poisoning is associated with Blackfoot disease, a form of peripheral vascular disease and neuropathy.

Q10. (c) Cl⁻. Explanation: Cystic fibrosis is caused by mutations in the CFTR gene, leading to defective chloride ion channels.

Q11. (a) Eight nerve → cochlear nuclei → superior olivary nucleus → lateral lemniscus → inferior colliculus → medial geniculate body → auditory cortex. Explanation: This is the correct physiological sequence of the auditory pathway from the periphery to the brain.

Q12. (b) Motilin - M cells from duodenum and jejunum. Explanation: While Motilin is secreted by M cells, its primary source is the duodenum and jejunum. This match is often considered incorrect in standard physiology contexts.

Q13. (b) Protein. Explanation: Protein has the highest thermogenic (specific dynamic) effect, increasing energy expenditure more than fat or carbohydrates.

Q14. (d) Wernicke's aphasia. Explanation: Wernicke's aphasia is characterized by fluent but nonsensical speech and poor comprehension, despite normal hearing tests (PTA/ABR).

Q15. (a) 1,3,4,2. Explanation: The correct order from periphery to center is Z line, A band, H zone, and finally the M line.

Q16. (c) Increase in aortic pressure. Explanation: The initial rise in BP during the Valsalva maneuver is specifically due to increased aortic pressure.

Q17. (c) Both true, Reason is the explanation of assertion. Explanation: RMP depends on proteins and phosphate ions, and the Nernst equation is the standard method used to calculate these diffusion potentials.

Q18. (a) Anemic hypoxia. Explanation: CO poisoning causes anemic hypoxia by reducing the overall oxygen-carrying capacity of hemoglobin.

Q19. (c) Obesity hypoventilation syndrome. Explanation: This syndrome is characterized by obesity (high BMI), daytime hypoventilation, and sleep-disordered breathing.

Q20. (a) Anti PMscl antibody. Explanation: Anti-PM-Scl antibody is specifically associated with overlap syndrome involving both scleroderma and polymyositis.

Q21. (c) Lewy body. Explanation: Lewy body dementia is an irreversible cause of dementia, while the others listed are potentially reversible.

Q22. (a) ANA. Explanation: Antinuclear antibody (ANA) testing is not a relevant screening test for Turner syndrome or Turner mosaicism.

Q23. (c) Decreased IgG and increase in IgM. Explanation: A lack of CD40 leads to Hyper IgM syndrome, characterized by a failure to class-switch, resulting in low IgG and high IgM.

Q24. (a) Pulmonary > Aortic > Mitral. Explanation: This represents the correct order for cardiac auscultation on the left side, moving from superior to inferior.

Q25. (d) A-2, B-4, C-3, D-1. Explanation: Match: Caplan syndrome (coal worker), Asbestosis (pleural effusion), Mesothelioma (lower lobe), Sarcoidosis (crazy pavement).

Q26. (c) Ventilation 22-25/min. Explanation: During adult CPR, a rate of 22–25/min is incorrect and excessive; the correct rate is about 10–12/min.

Q27. (a) Ceftazidime + Azithromycin. Explanation: Viral pneumonia (rhinovirus) typically doesn't need antibiotics, but Azithromycin is added if bacterial co-infection is suspected.

Q28. (a) Agranulocytosis. Explanation: Clozapine can cause agranulocytosis, requiring mandatory and regular blood count monitoring.

Q29. (b) Decrease FiO2. Explanation: FiO2 should be decreased to avoid oxygen toxicity since the patient is already perfectly oxygenated (SpO2 100%).

Q30. (d) Sitagliptin. Explanation: Sitagliptin is a DPP-4 inhibitor that increases incretin hormones (GIP, GLP-1) and lowers glucagon.

Q31. (b) Renal calculi. Explanation: Multiple calcifications seen on X-ray in the flank region are characteristic of kidney stones (nephrolithiasis).

Q32. (a) Canagliflozin. Explanation: SGLT2 inhibitors like Canagliflozin increase urinary glucose, which predisposes patients to genital mycotic infections and pruritis.

Q33. (a) Tronetide. Explanation: Trofinetide is a new monoclonal antibody specifically approved for the treatment of Rett syndrome.

Q34. (c) 6. Explanation: The provided radiological image demonstrates a fracture of the 6th rib.

Q35. (a) Pembrolizumab with chemo given for NSCLC. Explanation: The Keynote 189 trial studied the efficacy of pembrolizumab in combination with chemotherapy for non-small cell lung cancer.

Q36. (a) Allen test. Explanation: The Allen test is used to assess the arterial blood supply to the hand, usually before radial artery cannulation.

Q37. (c) Erythema multiforme. Explanation: Erythema multiforme typically presents with "target" or "iris" lesions on the palms and soles.

Q38. (b) Dose in which efficacy and toxicity can be balanced in an individual. Explanation: The clinical therapeutic index refers to the specific dose range that balances efficacy and toxicity for an individual patient.

Q39. (a) 1-b, 2-a, 3-d, 4-e. Explanation: Match: Erythrasma (coral red), Pityriasis versicolor (yellow), Tinea capitis (green), and Vitiligo (milky white) under Wood's lamp.

Q40. (a) Lapatinib. Explanation: Lapatinib is used specifically for HER-2 positive breast cancer that has become resistant to trastuzumab.

Q41. (d) Matzke scale. Explanation: The Matzke scale is a nomogram used for adjusting the dosage of vancomycin based on renal function.

Q42. (d) Bullous Pemphigoid. Explanation: The histopathology (subepidermal blister) and linear C3/IgG on the basement membrane are diagnostic for Bullous Pemphigoid.

Q43. (c) T790M mutation. Explanation: Osimertinib is specifically used to treat NSCLC patients who have developed the T790M EGFR resistance mutation.

Q44. (c) Both the above. Explanation: In this injury pattern, both the coracoclavicular and acromioclavicular ligaments are typically torn.

Q45. (c) a-2, b-3, c-1. Explanation: Match: Beta1 (Betaxolol), Beta2 (Isoprenaline), and Beta3 (Mirabegron).

Q46. (c) Frontal fibrosing alopecia. Explanation: Frontal fibrosing alopecia is a scarring type of hair loss, whereas the others listed are non-scarring.

Q47. (a) Cartilage thickness >2cm. Explanation: Cartilage cap thickness exceeding 2cm in an osteochondroma is highly suggestive of malignant transformation.

Q48. (c) Trazodone. Explanation: Trazodone is well-known to cause priapism (a prolonged, painful erection) as a rare side effect.

Q49. (a) Creutzfeldt Jakob disease. Explanation: Prion diseases like CJD are defined by the abnormal accumulation of misfolded prion proteins in the brain.

Q50. (b) Pityriasis Rosea. Explanation: Pityriasis rosea typically presents with scaly lesions in a "Christmas tree" distribution.

Q51. (c) Torsades de pointes. Explanation: Torsades de pointes is a polymorphic ventricular tachycardia identified by the "twisting" of QRS complexes on an ECG.

Q52. (a) Rapid blood transfusion. Explanation: For ongoing bleeding in a pelvic fracture, rapid blood transfusion is the immediate life-saving measure during resuscitation.

Q53. (a) Statements 1 & 2 are correct, 2 is not explaining 1. Explanation: Both clinical findings are correct for Pemphigus vulgaris, but the "row of tombstones" doesn't explain the mechanism of the split.

Q54. (c) Diastolic murmur. Explanation: Aortic regurgitation is characterized by an early diastolic murmur best heard at the left sternal border.

Q55. (b) Bullous pemphigoid. Explanation: Bullous pemphigoid is defined by subepidermal blisters and linear C3/IgG deposition along the basement membrane.

Q56. (b) Ulcerative colitis. Explanation: Ulcerative colitis involves continuous colonic inflammation that always affects the rectum and presents with bleeding.

