NEET PG 2021 Solution

Q1. True about the structure of the protein
Ans.The secondary and tertiary structure depends on amino acids.

Q2. Which serves as a precursor for the synthesis of nitric oxide(NO)?
Ans. Arginine serves as a precursor for the synthesis of nitric oxide (NO).

Q3. Injury to the posterior part of superior temporal gyrus
Ans.Injury to the posterior part of the superior temporal gyrus is most commonly associated with Fluent Aphasia.

Q4. Tocilizumab MoA against?
Ans.Tocilizumab is a monoclonal antibody that acts against Interleukin-6 (IL-6).

Q5. MoA of Methotrexate.
Ans. The mechanism of action (MoA) of methotrexate involves inhibiting dihydrofolate reductase (DHFR).

Q6. Inferior frontal Gyrus lesion
Ans. A lesion in the inferior frontal gyrus is typically associated with Broca's aphasia, also known as motor aphasia.

Q7. Frostbite rewarming
Ans. The ideal temperature for rewarming frostbitten areas is between 37 and 43 degrees Celsius. This range is warm enough to promote gradual and effective rewarming without causing additional tissue damage.

Q8. A hypertensive woman who wants to conceive. Which medicine needs to be stopped?
Ans.In a hypertensive woman who wants to conceive, certain antihypertensive medications need to be avoided due to potential risks to the fetus.The medicine that should be stopped is ACEI (Angiotensin-converting enzyme inhibitors).

Q9.GPCR second messenger acts via the following?
Ans. The second messenger pathway activated by a GPCR depends on the G-protein subtype it couples with Adenylate Cyclase activation leading to cAMP production is one of the primary pathways utilized by GPCRs that couple with G_s proteins, such as the Beta-2 adrenergic receptor.

Q10. History of pastry ingestion, followed by vomiting?
Ans.Staphylococcus Aureus food poisoning is characterized by rapid onset of symptoms such as vomiting after ingestion of contaminated food, often pastry or other ready-to-eat items

Q11. ATTs inhibiting OCPs.
Ans. Anti Tuberculosis drugs (ATTs), specifically Rifampicin can significantly reduce the effectiveness of oral contraceptive pills (OCPs) due to its enzyme-inducing properties.

Q12. VIT K dependent clotting factor
Ans. Factor 2 (Prothrombin) is a vitamin K-dependent clotting factor essential for blood clotting. Its synthesis and function rely on adequate levels of vitamin K, highlighting the importance of this vitamin in maintaining normal hemostasis and preventing bleeding disorders.

Q13. Safest Antihypertensive in End-stage renal disease?
Ans. The safest antihypertensive medications for patients with end-stage renal disease are Calcium Channel Blockers (like amlodipine and nifedipine) and Beta-Blockers (like carvedilol and metoprolol).

Q14. Post mastectomy swelling of upper limb?
Ans. Post-mastectomy swelling of the upper limb is typically due to Lymphedema.

Q15. Repair did for Direct Inguinal Hernia (Medial to Inferior Epigastric Artery)
Ans. The Lichtenstein tension-free mesh repair is a standard and effective surgical method for repairing direct inguinal hernias, which occur medially to the inferior epigastric vessels. This technique is favored for its simplicity, effectiveness, and reduced risk of hernia recurrence.

Q16. Patient was on Digoxin therapy and suddenly developed Atrial fibrillation. Which of the following drug is responsible for that
Ans. Clarithromycin can lead to an increase in digoxin levels by inhibiting P-glycoprotein, potentially causing digoxin toxicity and precipitating arrhythmias such as atrial fibrillation.

Q17. Snowman appearance is seen in?
Ans. The "snowman" appearance on a chest X-ray is typically seen in TAPVC – Total anomalous pulmonary venous connection.

Q18. Water Hammer Pulse
Ans. A Water Hammer pulse is a clinical sign commonly associated with aortic regurgitation (AR).

Q19. Cortisol and ACTH is highest in
Ans. Cortisol and ACTH levels are highest After waking up, typically between 6:00 and 8:00 AM. This diurnal rhythm plays a crucial role in regulating various bodily functions in response to daily activities and stress.

Q20. Identical twin transplant
Ans. An identical twin transplant is called an Isograft.

Q21. Tyrosine Kinase action
Ans. Insulin utilizes tyrosine kinase action through its receptor to initiate signaling cascades that regulate glucose metabolism and other cellular responses.

Q22. Active in insulin depleted state
Ans. In an insulin-depleted state, such as in diabetes mellitus or during fasting, Glucose 6 phosphatase (G6Pase)becomes active.

Q23. Patient with complaints of dryness & gritty sensation and corneal softening. What is the deficiency that is being referred to here?
Ans. The dryness, gritty sensation, and corneal softening described in the patient's symptoms are characteristic of xerophthalmia, a condition caused by Vitamin A deficiency (Retinoic acid deficiency).

Q24. Patient with contact lens for 2 years and the image showing the papillary changes on the everted lid?
Ans. A patient wearing contact lenses for 2 years and showing papillary changes on the everted eyelid suggests a condition known as Giant Papillary Conjunctivitis.

Q25. Which enzyme is responsible for black urine?
Ans. The enzyme responsible for causing black urine is Homogentisate Dehydrogenase.

Q26. Alternative for a patient who does not want to use specs for myopic astigmatism.
Ans. Implantable Collamer Lenses (ICLs) are a suitable alternative for correcting myopic astigmatism in patients who prefer not to use glasses or are not candidates for laser refractive surgery.

Q27. Chemical used for blood spill dysfunction?
Ans. The chemical commonly used for disinfection of surfaces contaminated with blood or other potentially infectious materials is Sodium hypochlorite.

Q28. Which of the following amino acids need to be supplemented through a diet who has a deficiency of Cystathionine beta-synthase?
Ans. If an individual has a deficiency of cystathionine beta-synthase (CBS), which is associated with homocystinuria, supplementation of certain amino acids becomes necessary. The amino acid that needs to be supplemented in this condition is Cysteine.

Q29. Patient had dinner at 8 pm. He then did a blood sugar test at 7 am. A major source of glucose is
Ans. The Liver glycogen is a major source of glucose during the fasting state, such as overnight periods between meals or during prolonged fasting.

Q30. Corneal Transparency maintained by which of the following gag?
Ans. Corneal transparency, which is crucial for clear vision, is maintained by Keratin Sulfate among the glycosaminoglycans (GAGs) present in the cornea.

Q31. Patient with vomiting, treated with anti-emetics. The patient was relieved and then, later developed abnormal movements. What to prescribe?
Ans. Benzhexol is prescribed to manage extrapyramidal symptoms (EPS) that can occur as a side effect of dopamine receptor blockade from medications like antiemetics. Its use helps alleviate abnormal movements and restore normal motor function in affected patients.

Q32. In case of measles, what type of virus is involved?
Ans. Measles is caused by the measles virus, a Single-stranded RNA virus belonging to the family Paramyxoviridae.

Q33. Blunt ends with no nuclei?
Ans. The blunt ends with no nuclei specifically apply to the microfilariae of Wuchereria bancrofti, which is the causative agent of lymphatic filariasis.

Q34. Outbreak of buboes in a community?
Ans. An outbreak of buboes in a community is indicative of bubonic plague, caused by Yersinia pestis. The transmission of this bacterium often involves infected fleas, such as Xenopsylla (Rat flea).

Q35. Mismatch repair defect?
Ans. The mismatch repair defect is associated with Hereditary Nonpolyposis Colorectal Cancer (HNPCC), which is also known as Lynch syndrome.

Q36. Chronic alcoholic patient with increasing abdominal girth and history of reddish inclusions in liver biopsy. Content of inclusion?
Ans. In chronic alcoholic patients with increasing abdominal girth and history of reddish inclusions seen in liver biopsy, the content of these inclusions is typically Mallory-Denk bodies (MDBs).These structures consist primarily of intermediate filaments, specifically keratins, and their presence is indicative of advanced liver pathology associated with chronic alcohol abuse.