AIIMS Norcet Mains Practice Paper

Q.1 **A nurse is caring for a patient with acute kidney injury (AKI). The nurse should monitor for which of the following electrolyte imbalances?**

A. Hyperkalemia
B. Hyponatremia
C. Hypercalcemia
D. Hypoglycemia
.

Answer: A

Sol:

· **Hyperkalemia**: (elevated potassium levels) is a common electrolyte imbalance seen in patients with **acute kidney injury (AKI)**. The kidneys are responsible for excreting excess potassium, and when kidney function is impaired, potassium can accumulate in the bloodstream. This can lead to dangerous complications, such as **cardiac arrhythmias**. Therefore, **monitoring for hyperkalemia** is a critical part of managing patients with AKI. Symptoms of hyperkalemia can include muscle weakness, fatigue, palpitations, and irregular heart rhythms.
· **Hyponatremia**: While **hyponatremia** (low sodium levels) can occur in various conditions, including **AKI**, it is **not as common or characteristic** of AKI as hyperkalemia. In AKI, sodium balance may be affected by fluid retention, and patients can develop either **hyponatremia or hypernatremia**, depending on the volume status and how well the kidneys are able to regulate sodium. However, **hyperkalemia** is typically more urgent and commonly seen in AKI.
· **Hypercalcemia**: (elevated calcium levels) is not typically associated with **AKI**. In fact, **hypocalcemia** (low calcium) is more commonly seen in kidney dysfunction due to the kidneys' role in converting vitamin D to its active form, which is essential for calcium absorption. Therefore, **hypercalcemia** is not a primary concern in AKI.
· **Hypoglycemia:** (low blood glucose) is not commonly associated with **AKI**. While kidney dysfunction can affect the metabolism and clearance of some medications, **hypoglycemia** is not a typical electrolyte imbalance in AKI. It is more commonly seen in patients with diabetes or those receiving insulin or other glucose-lowering medications.

Q.2 **Consider the following communication between a patient and nurse: Patient: I have done something wrong. Nurse: I would like to hear about it. It's okay to discuss it.**
Which one of the following verbal communication techniques is being used by the nurse?

A. Acceptance
B. Confrontation
C. Reflection
D. Validation

Answer: A

Sol:

Ans. (a) Sol. Acceptance is being used by the nurse, as she is nonjudgmentally allowing the patient to open up about their feelings without expressing disapproval.
· (b) Confrontation: Confrontation would involve pointing out inconsistencies or issues in the patient's statements.
· (c) Reflection: Reflection involves mirroring the patient's feelings or thoughts, but the nurse here is not repeating what the patient has said.
· (d) Validation: Validation involves confirming that the patient's feelings or experiences are understandable or acceptable, but here the nurse is simply inviting the patient to speak.

Q.3 **Which of the following is a primary mechanism of action for selective serotonin reuptake inhibitors (SSRIs)?**

A. Inhibition of dopamine reuptake.
B. Blockade of serotonin receptors.
C. Inhibition of serotonin reuptake.
D. Increase in gamma-aminobutyric acid (GABA) levels.

Answer: C

Sol:

Sol. Selective serotonin reuptake inhibitors (SSRIs) work by inhibiting the reuptake of serotonin in the synaptic cleft, increasing its availability for neurotransmission. This enhances mood regulation and is commonly used to treat depression and anxiety disorders.
Explanation of Each Option:
· (a) Inhibition of dopamine reuptake: This is the primary mechanism of action for dopamine reuptake inhibitors (DRIs), such as bupropion, which is used to treat depression and smoking cessation. It does not specifically target serotonin.
· (b) Blockade of serotonin receptors: Some antidepressants, like serotonin antagonists and reuptake inhibitors (SARIs), block specific serotonin

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receptors, but this is not the mechanism of SSRIs. SSRIs primarily prevent serotonin reuptake rather than blocking its receptors.
· (c) Inhibition of serotonin reuptake: This is the correct answer, as SSRIs work by preventing serotonin from being reabsorbed into the presynaptic neuron, increasing its levels in the synaptic cleft and improving neurotransmission.
· (d) Increase in gamma-aminobutyric acid (GABA) levels: GABAergic activity is associated with benzodiazepines and barbiturates, which are used for anxiety and seizures. SSRIs do not act on GABA pathways but specifically target serotonin reuptake.

Q.4 **Trisomy 18 is known as:**

A. Down syndrome
B. Edwards syndrome
C. Patau syndrome
D. Turner syndrome

Answer: B

Sol:

Edwards syndrome is caused by trisomy 18 and is associated with severe intellectual disability, growth retardation, clenched fists with overlapping fingers, micrognathia, and congenital heart defects. The survival rate is poor; most affected infants die within the first year of life.
Explanation of each option:
· (a) Down syndrome – Trisomy 21, not trisomy 18. It's a more common and milder chromosomal disorder with better survival.
· (b) Edwards syndrome – Correct. Trisomy 18 leads to life-threatening congenital defects and limited survival.
· (c) Patau syndrome – Trisomy 13, with features like cleft palate and holoprosencephaly.
· (d) Turner syndrome – Not a trisomy; caused by monosomy X, seen in females only.

Q.5 **Which of the following is a sign of good mental health?**

A. The ability to cope with stress and build relationships
B. The absence of all negative thoughts
C. The ability to avoid difficult emotions altogether
D. Never experiencing anxiety or sadness

Answer: A

Sol: Sol. Good mental health involves managing emotions effectively, coping with stress, and maintaining meaningful relationships. It does not mean avoiding all negative emotions, but rather learning how to handle them in a healthy way.
Explanation of Each Option:
· (a) The ability to cope with stress and build relationships: Correct answer. Resilience and social support are key indicators of good mental health.
· (b) The absence of all negative thoughts: Unrealistic, as everyone experiences negative thoughts sometimes; managing them is more important.
· (c) The ability to avoid difficult emotions altogether: Avoiding emotions can lead to repression and worsen mental health over time.
· (d) Never experiencing anxiety or sadness: Anxiety and sadness are normal parts of life, and their presence does not indicate poor mental health.

Q.6 **During postprandial monitoring, a female client with bulimia nervosa tells the nurse, "You can sit with me, but you're just wasting your time. After you had sat with me yesterday, I was still able to purge. Why are you doing it twice?" What is the nurse's best response?**

A. "I trust you not to purge."
B. "How are you purging and when do you do it?"
C. "Don't worry, I won't allow you to purge today."
D. "I know it's important for you to purge, but I'll monitor you for 90 minutes after you eat."

Answer: B

Sol:

(b) "How are you purging and when do you do it?"
Explanation:
The best response in this scenario is to open a dialogue about the client's behavior, demonstrating both empathy and an opportunity for further understanding. The nurse's response should aim to explore the client's purging behaviors in a nonjudgmental way, helping to assess the severity of the situation and understand the timing, methods, and triggers involved in purging. This helps build trust and provides insight into the client's thoughts and actions related to their eating disorder.
Here's why the other options are not as appropriate:
· (a) "I trust you not to purge.": While building trust is important, this response is overly optimistic and does not address the current situation or engage the client in a productive conversation. It also does not acknowledge the seriousness of the disorder or the client's ongoing struggles.
· (c) "Don't worry, I won't allow you to purge today.": This statement can be perceived as controlling and might create resistance or reinforce the client's feelings of helplessness or guilt. It's more effective to engage the client in a discussion that promotes self-awareness and understanding.
· (d) "I know it's important for you to purge, but I'll monitor you for 90 minutes after you eat.": This response is somewhat dismissive of the client's

concerns and reinforces the behavior by framing purging as something "important." The focus should be on understanding the client's feelings and developing healthier coping mechanisms, not reinforcing the behavior.
In summary, (b) "How are you purging and when do you do it?" opens a conversation that allows the nurse to understand the client's behavior more deeply and is the most therapeutic approach to providing support for someone with bulimia nervosa.

Q.7 **Cefuroxime sodium, 1 g in 50 mL normal saline (NS), is to be administered over 30 minutes to a client with an infection. The drop factor is 15 drops (gtt)/1 mL. The nurse sets the flow rate at how many drops per minute?**

A. 22 gtt/min
B. 25 gtt/min
C. 28 gtt/min
D. 30 gtt/min

Answer: B

Sol:

Ans (b)
Sol. The IV flow rate is calculated as:
Flow Rate=Volume (mL)×Drop factor (gtt/mL) / Time(min) =50×15 /30=25gtt/min
(a) 22 gtt/min: Incorrect calculation.
(c) 28 gtt/min: Incorrect.
(d) 30 gtt/min: Incorrect.

Q.8 **How much time does a heartbeat last?**

A. About 2 seconds
B. About 0.8 second
C. About 0.5 second
D. About 1.5 seconds

Answer: B

Sol:

Ans: (b) **About 0.8 second Sol.** A heartbeat typically lasts around **0.8 seconds**. This is the duration for one complete cycle of the heart, which includes both the **systole** (contraction phase) and **diastole** (relaxation phase). The time can vary slightly depending on an individual's heart rate, which is influenced by factors such as age, physical fitness, and overall health. On average, a resting heart rate for adults is about **60 to 100 beats per minute**, which corresponds to a duration of approximately **0.8 seconds** per beat.
Explanation of each option:
· **(a) About 2 seconds**: This is too long for a typical heartbeat duration. At this rate, the heart would be beating much slower than normal.
· **(c) About 0.5 second**: While this is close, it is generally faster than the average heartbeat duration for most people at rest.
· **(d) About 1.5 seconds**: This duration is too long for most normal heartbeats and would indicate a much slower heart rate, typically seen in some abnormal heart rhythms or extreme relaxation.

Q.9 **What is the normal duration of the puerperium period?**

A. 1 week
B. 2 weeks
C. 6 weeks
D. 12 weeks

Answer: C

Sol:

The puerperium typically lasts for 6 weeks (42 days) following childbirth. During this time, the uterus and other reproductive organs return to their pre-pregnancy state. It involves involution of the uterus, stabilization of hormonal levels, return of menstruation (if not breastfeeding), and psychological adjustment to motherhood. Proper rest, nutrition, and hygiene are essential in this period.
Explanation of each option:
· (a) 1 week – One week is insufficient for complete physiological changes. Although initial healing begins, full involution and recovery require more time.
· (b) 2 weeks – Some changes like reduction in uterine size begin, but hormonal and emotional changes continue beyond this.
· (c) 6 weeks – Correct. It allows complete involution, healing, hormonal balance, and initiation of lactation and menstruation.
· (d) 12 weeks – This exceeds the defined puerperium period. By this time, the mother typically enters the extended postnatal phase.

Q.10 **What is the purpose of mental hygiene?**

A. To maintain mental health and improve quality of life
B. To prevent people from experiencing sadness
C. To eliminate the need for psychological assessments
D. To ensure that everyone is always happy

Answer: A

Sol:

Sol. Mental hygiene focuses on daily habits that maintain mental well-being, prevent mental health issues, and improve overall life quality. It helps individuals develop resilience, emotional stability, and coping mechanisms.
Explanation of Each Option:
· (a) To maintain mental health and improve quality of life: Correct answer. Mental hygiene aims to support mental well-being.
· (b) To prevent people from experiencing sadness: Sadness is a natural emotion that cannot be entirely prevented.
· (c) To eliminate the need for psychological assessments: Mental hygiene does not replace assessments; it complements them.
· (d) To ensure that everyone is always happy: Mental hygiene improves well-being, but constant happiness is unrealistic.

Q.11 **A nurse is planning a teaching session for a group of prenatal mothers about a balanced diet. What kind of information is the nurse providing?**

A. Health maintenance and promotion
B. Health benefit
C. Face a perverted verb
D. Teaching communication

Answer: A

Sol:

Answer: (a) Health maintenance and promotion
Explanation:
When a nurse educates prenatal mothers about a balanced diet, the goal is to promote health and prevent complications for both the mother and baby. This falls under health maintenance and promotion, which includes:
· Encouraging a nutrient-rich diet to support fetal growth.
· Preventing nutritional deficiencies (e.g., folic acid for neural tube defects, iron for anemia).
· Educating on healthy weight gain and dietary choices during pregnancy.
Other Options Explained:
· (b) Health benefit:
· While a balanced diet has health benefits, the teaching session's purpose is broader—maintaining and promoting health.
· (c) Face a perverted verb:
· This phrase does not make sense in the context.
· (d) Teaching communication:
· The session involves education, but the focus is on health promotion, not just communication skills.
Conclusion:
Since the goal is to educate and promote maternal and fetal well-being, the correct answer is (a) Health maintenance and promotion.

Q.12 **Which government scheme specifically focuses on the reproductive health of adolescent girls in India?**

A. Janani Suraksha Yojana
B. Rashtriya Kishor Swasthya Karyakram
C. Balika Samridhi Yojana
D. Beti Bachao Beti Padhao

Answer: B

Sol:

The Rashtriya Kishor Swasthya Karyakram (RKSK) was launched in 2014 by the Ministry of Health and Family Welfare, focusing on comprehensive adolescent health. It covers sexual and reproductive health, menstrual hygiene, prevention of early pregnancy, and safe abortion awareness for both girls and boys aged 10–19.
Explanation of each option:
· (a) Janani Suraksha Yojana – Targets pregnant women, not adolescents, to reduce maternal mortality.
· (b) Rashtriya Kishor Swasthya Karyakram – Correct. Specifically targets adolescent health, including sexual and reproductive care.
· (c) Balika Samridhi Yojana – Promotes girl child education and development, but not focused on reproductive health.
· (d) Beti Bachao Beti Padhao – Aims at preventing female feticide and promoting girl child education, not healthcare.

Q.13 **A nurse is caring for a patient who has just undergone a thyroidectomy. Which of the following complications should the nurse monitor for?**

A. Hypoglycemia
B. Hypocalcemia
C. Hyperkalemia
D. Hypernatremia

Answer: B

Sol:

· **Hypoglycemia**: Hypoglycemia is **not** typically a direct complication following a thyroidectomy. Thyroidectomy is related to hormone regulation and calcium balance, not directly to blood glucose levels. While stress or other factors could cause fluctuations in glucose levels, **hypoglycemia** is not a primary concern after thyroid surgery.
· **Hypocalcemia**: **Hypocalcemia** is a **common and serious complication** following thyroidectomy, especially if the **parathyroid glands** are accidentally damaged or removed during the surgery. The parathyroid glands regulate calcium levels in the body, and if they are affected during thyroid surgery, **calcium levels can drop**, leading to **hypocalcemia**. Symptoms include **muscle twitching**, **numbness or tingling in the fingers or around the mouth**, and **tetany** (involuntary muscle contractions). This is why calcium levels are closely monitored in patients post-thyroidectomy.
· **Hyperkalemia**: **Hyperkalemia**, or high potassium levels, is generally associated with conditions like **renal failure**, **medications (e.g., potassium-sparing diuretics)**, or **tissue injury**. It is not typically a direct complication of thyroidectomy. Therefore, it is not the primary concern in this situation.
· **Hypernatremia**: **Hypernatremia**, or high sodium levels, can occur in situations involving **dehydration** or **kidney dysfunction**, but it is not a common complication after a thyroidectomy. This condition is not usually associated with thyroid surgery or its immediate postoperative care.

Q.14 **Which of the following drugs is used as a pure opioid antagonist in opioid poisoning?**

A. Methadone
B. Morphine
C. Naloxone
D. Fentanyl

Answer: C

Sol:

Naloxone is a pure opioid receptor antagonist used to rapidly reverse opioid overdose effects like respiratory depression and sedation. It competitively blocks mu, kappa, and delta opioid receptors, displacing opioids from receptor sites. It is non-addictive and does not activate opioid receptors, hence causing no euphoric effects. Its onset of action is quick, usually within 2 minutes after IV injection. Naloxone is widely available in emergency kits, ambulances, and hospitals globally. It is considered a life-saving drug in opioid toxicity emergencies.
Explanation of each option:
· (a) Methadone – It is a synthetic opioid agonist used in pain management and opioid substitution therapy; it does not reverse overdose. It can cause respiratory depression in high doses.
· (b) Morphine – An opioid agonist used for pain relief; it contributes to overdose rather than reversing it. Its use in overdose would worsen symptoms.
· (c) Naloxone – Correct answer. It is the standard emergency drug used to counteract the effects of opioid overdose quickly and effectively.
· (d) Fentanyl – A potent synthetic opioid agonist that is responsible for many overdose deaths; it has no antagonist activity.

Q.15 **The preterm infant's elbow may easily be brought across the chest with no resistance is _____**

A. Sunset sign
B. Tonic neck reflex
C. Scarf sign
D. Grasp reflex

Answer: C

Sol: Ans (c)
Sol. Sunset sign: This refers to a sign of increased intracranial pressure in infants, characterized by the downward deviation of the eyes. It is not related to the movement of the elbows.
Tonic neck reflex: This reflex occurs when an infant's head turns to one side, causing the arm on that side to extend and the opposite arm to flex. It does not involve bringing the elbow across the chest.
Scarf sign: The scarf sign is a clinical sign used to assess the tone of a preterm infant. It involves gently attempting to bring the infant's elbow across the chest, and if the elbow can be brought easily, it indicates low muscle tone, which is often seen in premature infants.
Grasp reflex **:** This reflex occurs when an infant's hand is stroked, causing the fingers to close around the object. It is not related to the movement of the elbow or bringing it across the chest.

Q.16 **A person who refuses to accept the reality of a painful event is exhibiting which defense mechanism?**

A. Denial
B. Repression
C. Projection
D. Reaction Formation

Answer: A

Sol:

Denial is a primitive defense mechanism where an individual consciously or unconsciously refuses to acknowledge reality or facts. It's often the first reaction to trauma or loss and serves to cushion the initial shock.
Explanation of each option:
· (a) Denial – Correct. Blocks awareness of external reality (e.g., a parent refusing to accept the death of their child). It's a short-term protective response.
· (b) Repression – Hides internal feelings or memories by pushing them into the unconscious mind without conscious awareness.
· (c) Projection – Transfers one's feelings to others; for example, feeling angry but accusing someone else of being hostile.
· (d) Reaction Formation – Covers up actual feelings by expressing the exact opposite (e.g., treating someone you hate with extreme niceness).

Q.17 **The approach of the nursing process of giving nursing care can be regarded as:**

A. Institutional curriculum
B. Instructional curriculum
C. Societal curriculum
D. Core curriculum

Answer: D

Sol:

Ans. (d) Core curriculum
Sol. The nursing process, which includes assessing, diagnosing, planning, implementing, and evaluating, can be regarded as part of the core curriculum. It forms the foundation of nursing education and ensures that all nurses are equipped with the fundamental skills needed for providing quality care.
Explanation of each option:
· **(a) Institutional curriculum – Incorrect.** Institutional curriculum refers to the specific educational content defined by an institution, which may not focus solely on the nursing process.
· **(b) Instructional curriculum – Incorrect.** Instructional curriculum refers to the teaching strategies and content delivery methods, but does not specifically define the nursing process.
· **(c) Societal curriculum – Incorrect.** Societal curriculum refers to the broader societal influences and policies that impact education, not the nursing process itself.
· **(d) Core curriculum – Correct answer.** The core curriculum is designed to ensure that fundamental skills, including the nursing process, are taught and learned by all nursing students.

Q.18 **The family of an older adult who is aphasic reports to the nurse manager that the primary nurse failed to obtain a signed consent before inserting an indwelling catheter to measure hourly output. What should the nurse manager consider before responding?**

A. Procedures for a client's benefit do not require a signed consent.
B. Clients who are aphasic are incapable of signing an informed consent.
C. A separate signed informed consent for routine treatments is unnecessary.
D. A specific intervention without a client's signed consent is an invasion of rights.

Answer: C

Sol:

(c) A separate signed informed consent for routine treatments is unnecessary.
Here's the explanation:
1. **Routine Procedures**: An indwelling catheter for monitoring hourly output is generally considered a routine procedure for managing patients' physiological needs. These types of procedures are often covered by the broader consent signed at the time of admission, especially if they are necessary for the patient's care and are not invasive or experimental.
2. **Informed Consent**: The concept of informed consent applies to procedures that are more invasive, experimental, or have significant risks. For routine procedures like catheter insertion, a separate informed consent may not be required if it was included in the initial consent given upon admission.
3. **Other Options**:
· **(a) Procedures for a client's benefit do not require a signed consent**: This is misleading because consent is generally required for all procedures, but routine procedures are often covered under the general consent.
· **(b) Clients who are aphasic are incapable of signing an informed consent**: Aphasia affects communication but does not necessarily preclude the

ability to give consent. However, a legally authorized representative may need to provide consent if the client cannot.

· **(d) A specific intervention without a client's signed consent is an invasion of rights**: This applies more to non-routine or experimental procedures rather than routine interventions.

In summary, routine procedures such as the insertion of an indwelling catheter for monitoring purposes are usually covered by the general consent signed at admission, making **(c)** the most accurate response.

Q.19 **A terminally ill client in a hospice unit is receiving a morphine drip, and the dose is now higher than the typical recommended dosage. The client's spouse requests an increase in morphine for the client's discomfort. What should the nurse do?**

A. Add a placebo to the morphine to appease the spouse
B. Discuss the risk of morphine addiction with the spouse
C. Assess the client's pain before increasing the morphine dose
D. Check the client's heart rate before increasing the morphine to the next level

Answer: C

Sol:

Answer: (c) Assess the client's pain before increasing the morphine dose

Rationale: In a hospice setting, where the goal is to provide comfort and alleviate pain, it is crucial to regularly assess the client's pain levels to determine the appropriate dosage of morphine. Tolerance to morphine often develops, requiring careful reassessment of pain and dosage adjustments. Discussing the risk of addiction is not relevant in this terminal situation, and monitoring heart rate is less critical compared to assessing pain. Adding a placebo is unethical and does not address the client's actual needs.

Q.20 **The most commonly used IV cannula size for adult patients is**

A. 14G

B. 16G

C. 18G

D. 20G

Answer: C

Sol: **Explanation:**

- **18G** is the most commonly used IV cannula size for adult patients in routine clinical settings.
- It provides a good balance between fluid flow rate and patient comfort.

While other sizes like 20G and 22G are also used, the choice depends on factors like the patient's condition, the type of fluid or m being administered, and the desired infusion rate.

IV Cannula	Size	Color	Uses
	14 Guage	Orange	Rapid Blood Transfusion, Trauma , Su
	16 Guage	Grey	Rapid Fluid Replacement- Transfusion,
	18 Guage	White	Rapid Blood Transfusion, Trauma , Su
	20 Guage	Pink	Rapid Blood Transfusion,Surgery
	22 Guage	Blue	Rapid Fluid Replacement- Transfusion,
	24 Guage	Yellow	Trauma, Routine Blood Transfusio
	26 Guage	Violet	Most Infusions,Rapid Fluid Replacem

Q.21 **Where does the fertilization take place?**

A. Infundibulum
B. Ovary
C. Ampulla
D. Isthmus

Answer: C

Sol:

Ans. (c) Ampulla
Sol. Fertilization in human females usually occurs in the **ampulla** region of the **fallopian tube**, which is the **widest and longest** portion. This is where the sperm meets the ovum for fertilization.
Explanation of each option:
· **(a) Infundibulum** – The funnel-shaped opening near the ovary that helps capture the ovum, but not the typical site of fertilization.
· **(b) Ovary** – Site of ovum (egg) production, but fertilization doesn't occur here.
· **(c) Ampulla** – **Correct.** Most common site of fertilization in the fallopian tube.
· **(d) Isthmus** – Narrow part of the fallopian tube; fertilization here is rare.

Q.22 **Epispadias means:**

A. Abnormal urethral opening on the ventral side of the penis
B. Abnormal urethral opening at the tip of the penis
C. Abnormal urethral opening on the dorsal side of the penis
D. Abnormal urethral opening at the scrotal sac

Answer: C

Sol:

Ans. (c) Abnormal urethral opening on the dorsal side of the penis
Sol. Epispadias is a congenital condition where the urethral opening is located on the dorsal (upper) surface of the penis instead of at the tip. It occurs due to improper development of the urethral folds during fetal growth and may lead to urinary incontinence and abnormal penile curvature.
Explanation of each option:
· (a) Abnormal urethral opening on the ventral side of the penis – Incorrect. This describes hypospadias, not epispadias.
· (b) Abnormal urethral opening at the tip of the penis – Incorrect. This is the normal urethral opening location.
· (c) Abnormal urethral opening on the dorsal side of the penis – Correct answer. Characteristic feature of epispadias.
· (d) Abnormal urethral opening at the scrotal sac – Incorrect. No condition specifically defines this anomaly.

Q.23 **How is a functional disorder treated in adolescents?**

A. Punishment
B. Antibiotics
C. Avoiding the issue
D. Occupational therapy

Answer: D

Sol:

Ans: (d) **Occupational therapy Sol. Occupational therapy (OT)** is commonly used to help adolescents with functional disorders. Functional disorders often involve difficulties in performing daily activities due to mental, emotional, or physical health issues. OT focuses on enhancing skills for daily living, social functioning, and emotional well-being.

Explanation of each option:

· **(a) Punishment**: Punishment is not a treatment for functional disorders and can exacerbate the problem.

· **(b) Antibiotics**: Antibiotics are used for bacterial infections, not for treating functional disorders, which are non-infectious.

· **(c) Avoiding the issue**: Avoidance can worsen the situation. Addressing the disorder through therapy, including occupational therapy, is important.

· **(d) Occupational therapy**: Correct answer. Occupational therapy helps adolescents manage their disorder by improving functional capabilities and coping mechanisms.

Q.24 **Identify an essential amino acid from the following:**

A. Valine
B. Glycine
C. Serine
D. Proline

Answer: A

Sol:

Ans. (a) Valine

Sol. Essential amino acids are those that cannot be synthesized by the human body and must be obtained from the diet. Valine is one of the nine essential amino acids, crucial for muscle metabolism, tissue repair, and nitrogen balance.

Explanation of each option:

(a) Valine – Correct answer. An essential amino acid required for protein synthesis.

(b) Glycine – Incorrect. A non-essential amino acid that the body can synthesize.

(c) Serine – Incorrect. A non-essential amino acid involved in metabolism and enzyme function.

(d) Proline – Incorrect. A conditionally essential amino acid that can be synthesized under normal conditions.

Q.25 **The temperature of eye irrigating solution should be at what degrees (in Fahrenheit)?**

A. 90 – 94
B. 98 – 100
C. 120 – 104
D. 110

Answer: B

Sol:

Ans. (b) 98 – 100

Sol. The recommended temperature for an eye irrigating solution is 98 – 100°F, which is close to normal body temperature. This range ensures comfort and prevents irritation to the eye tissues. If the solution is too cold or too hot, it may cause discomfort or damage the delicate ocular structures.

Explanation of each option:

(a) 90 – 94°F – Incorrect. This temperature is slightly lower than body temperature and may cause discomfort.

(b) 98 – 100°F – Correct answer. This is the ideal range to maintain physiological eye comfort.

(c) 120 – 104°F – Incorrect. This range includes dangerously high temperatures that can cause burns or irritation.

(d) 110°F – Incorrect. This temperature is too hot and can cause eye discomfort or damage.

Q.26 **The client is going to have an intravenous pyelography (IVP) procedure. The nurse is getting ready to give the client a laxative. Why is the laxative given before the procedure?**

A. To clear out the bowel so the lower GI tract can be examined.
B. To prevent any accidents with stool during the X-ray.
C. To avoid problems with constipation or impaction.
D. To make it easier to see the urinary structures.

Answer: D

Sol:

(d) To make it easier to see the urinary structures.

Explanation:

An Intravenous Pyelogram (IVP) is an X-ray examination of the kidneys, ureters, and bladder that uses an injected contrast dye to produce clear images of the urinary tract.

Why the laxative?

- Clear visualization: The contrast dye is injected into a vein and travels through the bloodstream to the kidneys. It's then excreted in the urine, allowing the X-ray to visualize the urinary tract clearly.
- Bowel interference: If the bowel is full, it can obscure the view of the urinary tract, making it difficult to interpret the images.
- Improved image quality: By clearing out the bowel, the laxative helps to ensure that the X-ray images are clear and provide accurate information about the urinary system.

the laxative is given to prepare the patient for an IVP by ensuring a clear view of the urinary tract, leading to better diagnostic results.

Q.27 **Which of the following is a key component of mental hygiene?**

A. Ignoring stress to avoid its impact
B. Blaming others for personal problems
C. Engaging in daily activities that support mental health
D. Avoiding social interactions to prevent stress

Answer: C

Sol: Sol. Mental hygiene involves daily habits that support mental well-being, such as self-care, healthy coping mechanisms, and emotional stability. It aims to prevent adverse reactions and improve quality of life.
Explanation of Options:
· (a) Ignoring stress to avoid its impact: Ignoring stress can lead to mental health deterioration rather than improvement.
· (b) Blaming others for personal problems: Mental hygiene promotes responsibility and emotional stability, not blaming others.
· (c) Engaging in daily activities that support mental health: Correct answer; mental hygiene involves daily practices to maintain emotional well-being.
· (d) Avoiding social interactions to prevent stress: Isolation can worsen mental health; relationships are essential for well-being.

Q.28 **Vulsellum forcep is used for gripping the _____**

A. Perineum
B. Fetal head
C. Cervix
D. Labium

Answer: C

Sol: Ans (c)
Sol. Perineum: The perineum is the area between the anus and the genitals. Vulsellum forceps are not used for gripping this area.
Fetal head: Instruments used to assist with delivery of the fetal head include forceps like Simpson or Kielland, not vulsellum forceps.
Cervix: Vulsellum forceps are specifically designed to grip the cervix during gynecological procedures, such as cervical dilatation or for stabilizing the cervix during intrauterine device (IUD) insertion. This is the correct answer.
Labium: The labium refers to the external folds of the vulva. Vulsellum forceps are not used for gripping these structures.

Q.29 **Which of the following is a major health risk associated with adolescent pregnancy?**

A. High birth weight
B. Increased risk of preeclampsia
C. Low iron absorption
D. Shorter duration of labor

Answer: B

Sol:

Adolescent mothers have a significantly higher risk of preeclampsia, which is a dangerous pregnancy complication involving high blood pressure and potential organ damage. Their bodies are often not fully matured, and hormonal imbalances can contribute to pregnancy-related hypertensive disorders, increasing both maternal and fetal morbidity.

Explanation of each option:

· (a) High birth weight – Adolescent pregnancies are more often linked with low birth weight, not high.

· (b) Increased risk of preeclampsia – Correct. Adolescents are at higher risk due to immature physiological systems.

· (c) Low iron absorption – Iron-deficiency anemia may be common, but it's due to poor intake, not absorption issues.

· (d) Shorter duration of labor – Adolescents are more likely to face prolonged labor due to an underdeveloped pelvis.

Q.30 **Bacillus cereus food poisoning is commonly associated with the consumption of:**

A. Fried rice
B. Green beans
C. Bottled honey
D. Baked potato

Answer: A

Sol: Ans (a)

Sol. Fried rice: Bacillus cereus food poisoning is most commonly associated with improperly cooked or stored rice, especially fried rice. The bacteria produce toxins that cause vomiting or diarrhea when rice is left at room temperature for extended periods. This is the correct answer.

Green beans: While Bacillus cereus can grow on various food items, green beans are not a common source of this type of food poisoning.

Bottled honey: Bottled honey is more commonly associated with Clostridium botulinum, which can cause botulism, particularly in infants, rather than Bacillus cereus poisoning.

Baked potato: Bacillus cereus is not commonly linked to baked potatoes. These are more frequently associated with Clostridium botulinum when stored improperly in foil.

Q.31 **Which of the following assessment findings suspect the diagnosis of placenta previa?**

A. Bright red coloured bleeding
B. Tender uterus
C. Placenta in the upper segment
D. Abdominal pain

Answer: A

Sol:

Ans. (a) Sol. Bright red coloured bleeding is a typical sign of placenta previa, where the placenta partially or completely covers the cervix, leading to painless bleeding.

Explanation of each option:

· **(a) Bright red coloured bleeding** – Correct. Placenta previa is associated with painless, bright red bleeding in the second or third trimester.

· **(b) Tender uterus** – Incorrect. Tenderness of the uterus is more commonly seen with placental abruption, not placenta previa.

· **(c) Placenta in the upper segment** – Incorrect. Placenta previa involves the placenta covering the lower segment of the uterus, not the upper segment.

· **(d) Abdominal pain** – Incorrect. Abdominal pain is not typically associated with placenta previa, but may be seen in cases of placental abruption.

Q.32 **What is a major pharmacological action of opioids?**

A. Increase heart rate
B. Stimulate gastrointestinal motility
C. Suppress respiratory center
D. Enhance urinary output

Answer: C

Sol:

Opioids act on the respiratory centers in the brainstem and suppress the body's response to elevated carbon dioxide levels. This leads to hypoventilation or apnea, especially during overdose or when combined with other CNS depressants. Respiratory depression is the most serious side effect of opioid overdose and the leading cause of death in such cases. This effect is more pronounced in opioid-naïve individuals or in those with underlying respiratory conditions. Naloxone is administered as an antidote in such emergencies. Monitoring respiration is essential during opioid

therapy.
Explanation of each option:
· (a) Increase heart rate – Opioids usually reduce heart rate due to vagal stimulation; tachycardia is not typical.
· (b) Stimulate GI motility – On the contrary, opioids inhibit GI motility, leading to constipation which is a common side effect.
· (c) Suppress respiratory center – Correct answer. Opioids directly depress respiratory drive, making this a potentially fatal effect.
· (d) Enhance urinary output – Opioids may cause urinary retention by increasing sphincter tone and impairing detrusor muscle activity.

Q.33 **Which of the following complications is more common in pregnancies of adolescent girls?**

A. Gestational diabetes
B. Post-term pregnancy
C. Low birth weight baby
D. Polyhydramnios

Answer: C

Sol:

Adolescent pregnancies are more likely to result in low birth weight babies due to poor maternal nutrition, anemia, and underdeveloped reproductive systems. The risk increases with younger age and lack of antenatal care. Low birth weight can lead to infant mortality and long-term developmental issues.
Explanation of each option:
· (a) Gestational diabetes – More common in older women or obese pregnancies, not adolescents.
· (b) Post-term pregnancy – Less frequently seen; adolescents often deliver early or on time.
· (c) Low birth weight baby – Correct. Most common complication due to biological and nutritional immaturity.
· (d) Polyhydramnios – Rare and usually associated with fetal abnormalities or maternal diabetes, not adolescence.

Q.34 **....How is a functional disorder treated in adolescents?**

A. Punishment
B. Antibiotics
C. Avoiding the issue
D. Occupational therapy

Answer: D

Sol:

Ans: (d) **Occupational therapy Sol. Occupational therapy (OT)** is a commonly recommended treatment for functional disorders in adolescents. OT helps individuals develop, recover, or maintain daily living and work skills, which may be impaired in functional disorders. It focuses on activities that improve their ability to function in everyday life, particularly in terms of social, educational, and emotional skills.
Explanation of each option:
· **(a) Punishment**: Punishment is not an effective treatment for functional disorders. Functional disorders are not caused by bad behavior and require supportive treatment such as therapy, not punitive measures.
· **(b) Antibiotics**: **Antibiotics** are used to treat infections caused by bacteria. Functional disorders are not related to infections, so antibiotics would not be appropriate treatment.
· **(c) Avoiding the issue**: Avoiding the issue does not resolve the underlying problem in adolescents with functional disorders. Treatment requires addressing the root causes through therapy and support.
· **(d) Occupational therapy**: Correct answer. **Occupational therapy** is an effective treatment that helps adolescents cope with and manage functional disorders by focusing on practical skills, social integration, and emotional well-being.

Q.35 **A nurse caring for a patient after cataract surgery should include which of the following care immediately after the surgery?**

1. Administer topical antibiotics
2. Administer topical corticosteroids
3. Administer sedatives
4. Advise activity restriction like bending and lifting

Select the correct answer using the code given below.

A. 1 and 2 only
B. 1, 2 and 4
C. 3 and 4
D. 1, 2 and 3

Answer: B

Sol:

1. Correct Answer: B 1, 2 and 4
2. Administer topical antibiotics – These help prevent post-surgical infections, which are a major risk after any eye surgery.
3. Administer topical corticosteroids – These reduce inflammation, swelling, and pain, promoting faster healing.
4. Activity restriction (like bending and lifting) – Patients are advised to avoid bending over or lifting heavy objects as these actions increase intraocular pressure, which can disrupt healing and potentially cause complications such as bleeding or displacement of the intraocular lens.
5. Sedatives are not a routine post-cataract surgery requirement, as most patients undergo the procedure under local anesthesia, and recovery is typically smooth without needing sedatives.
6. Other Options Analysis:
7. Option A (1 and 2 only): Correct but incomplete as activity restrictions (4) are also crucial.
8. Option C (3 and 4): Incorrect as sedatives are not a standard part of cataract post-operative care.
9. Option D (1, 2, and 3): Incorrect as sedatives are not necessary.
10.
11. Information Booster:
    - Patients should avoid rubbing or touching the operated eye to prevent infections and irritation.
    - Protective eye shields or sunglasses are recommended to prevent accidental injury and light sensitivity.
    - Follow-up visits with an ophthalmologist are necessary to monitor healing progress.
    - Patients should use prescribed eye drops regularly and follow hygiene protocols to avoid infections.
    - Common symptoms post-surgery include mild irritation and blurry vision, which gradually improve as the eye heals.
12. Explanation:
    After cataract surgery, proper post-operative care is essential to ensure optimal healing and prevent complications. The nurse should:

Q.36 **In the following question, which letter(s) should be suffixed or prefixed to form meaningful words:**
_____ort, _____awl, _____uffle, _____rine

A. Ab
B. Sn
C. T
D. Sh

Answer: D

Sol:

Ans. (d)
Sol. Let's try adding each option as a **prefix** to the given word roots:
· **Sh + ort = Short** ✅
· **Sh + awl = Shawl** ✅
· **Sh + uffle = Shuffle** ✅
· **Sh + rine = Shrine** ✅
All four form **meaningful English words** with the prefix "Sh".
Explanation of each option:
· **(a) Ab** – Abort (valid), Abawl (invalid), Abuffle (invalid), Abrine (invalid) → ❌ Not all valid.
· **(b) Sn** – Snort (valid), Snawl (invalid), Snuffle (valid), Snrine (invalid) → ❌ Only some valid.
· **(c) T** – Tort (valid), Tawl (invalid), Tuffle (invalid), Trine (valid) → ❌ Inconsistent.
· **(d) Sh** – **Short, Shawl, Shuffle, Shrine** → ✅ All are valid words.
Hence, the correct answer is **(d) Sh**.

Q.37 **The removal of tissue from the pleural space is known as _____**

A. Liver biopsy
B. Lung biopsy
C. Spleen biopsy
D. Pleural biopsy

Answer: D

Sol: Ans (d)
Sol. Liver biopsy: This is a procedure where a small sample of liver tissue is removed for examination. It is unrelated to the pleural space.
Lung biopsy: This involves the removal of a tissue sample from the lung, but it is not specifically related to the pleural space.
Spleen biopsy: This is the removal of tissue from the spleen, unrelated to the pleural space.
Pleural biopsy: This is the procedure in which tissue is removed from the pleura (the lining around the lungs) for diagnostic purposes, often to investigate conditions like infections, tumors, or pleuritis

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Q.38 **If a lead nurse asks a staff nurse to compile a report on needle stick injuries, which form of communication is being used?**

A. Upward Communication
B. Intrapersonal Communication
C. Downward Communication
D. Lateral Communication

Answer: C

Sol:

Answer: (c) Downward Communication
Explanation: Downward Communication involves directives and instructions from a higher authority (lead nurse) to a lower level (staff nurse).
· **Upward Communication** involves reporting to higher management.
· **Intrapersonal Communication** is internal dialogue.
· **Lateral Communication** occurs between peers at the same level.

Q.39

A mental disorder where a person believes that lice are crawling on their arm, despite there being no lice present, is known as

A. Auditory illusion
B. Auditory hallucination
C. Tactile illusion
D. Tactile hallucination

Answer: D

Sol:

d. Tactile hallucination

Here's why the other options are not applicable:

- **a. Auditory illusion:** This refers to a misperception of sound, not a tactile sensation like feeling bugs crawling.
- **b. Auditory hallucination:** This involves hearing sounds that aren't there, not feeling sensations on the skin.
- **c. Tactile illusion:** This describes a misinterpretation of a real touch, for example, feeling your phone vibrate when it's not. In delusional parasitosis, there's no real touch to misinterpret.

Tactile hallucination is the most accurate term because the person experiences a sensation of crawling bugs (tactile) that isn't actually there (hallucination).

Tactile hallucinations are a type of sensory hallucination where a person experiences a feeling or sensation on their skin that isn't actually there. It's like feeling something touch you, move on your skin, or even crawl under your skin, even though there's no physical stimulus causing it.

Here's a breakdown of tactile hallucinations:

What they feel like:

- Common descriptions include sensations of insects crawling, burning, itching, tingling, or pressure on the skin.
- The feeling can be localized to a specific area or more widespread.

Causes:

There are several conditions that can cause tactile hallucinations, including:

- **Mental health conditions:** Schizophrenia, bipolar disorder, anxiety disorders, and dementia are some examples.
- **Neurological conditions:** Stroke, epilepsy, Parkinson's disease, and multiple sclerosis can sometimes cause tactile hallucinations.
- **Substance use or withdrawal:** Certain drugs or alcohol abuse/withdrawal can lead to tactile hallucinations.
- **Skin conditions:** In rare cases, severe skin conditions can cause a person to misinterpret real sensations as hallucinations.

It's important to note that tactile hallucinations can be distressing for the person experiencing them. They might feel confused, scared, or even paranoid because of the sensations they feel.

Here are some additional points to consider:

- If you experience tactile hallucinations, it's crucial to seek medical attention to determine the underlying cause.
- Treatment will depend on the cause, but might involve medications, therapy, or a combination of both.

Examples of Tactile Hallucinations:

- A person with schizophrenia might feel bugs crawling all over their skin.
- Someone with anxiety might feel a constant prickling sensation on their arms.
- An individual with Parkinson's disease might experience a burning sensation in their feet, even though their feet feel normal to the touch.

If you suspect you or someone you know might be experiencing tactile hallucinations, please encourage them to see a doctor or mental health professional for a proper diagnosis and treatment plan.

Q.40 **The nurse is providing education to a patient diagnosed with hypertension. Which of the following should the nurse recommend as a lifestyle change?**

A. Increasing sodium intake
B. Reducing physical activity
C. Eating a low-fat, low-sodium diet
D. Decreasing fluid intake

Answer: C

Sol:

· **Increasing sodium intake**: Sodium intake should be **reduced** in patients with hypertension (high blood pressure), as excess sodium can cause the body to retain water, which increases blood volume and raises blood pressure. A typical recommendation for people with hypertension is to limit sodium intake to **2,300 mg per day** or less, and ideally, aiming for **1,500 mg**.
· **Reducing physical activity**: Physical activity has a **positive effect on blood pressure** and should be encouraged, not reduced. Regular physical activity, such as **30 minutes of moderate exercise most days of the week**, helps lower blood pressure by improving heart health and circulation. Sedentary lifestyles contribute to higher blood pressure and overall cardiovascular risk.
· **Eating a low-fat, low-sodium diet**: A **low-fat, low-sodium diet** is a key recommendation for managing hypertension. Reducing sodium helps control blood pressure, while a low-fat diet, especially one that is low in saturated fats and trans fats, can improve heart health and reduce the risk of heart disease, which is common in people with hypertension. The **DASH (Dietary Approaches to Stop Hypertension)** diet specifically emphasizes reducing sodium intake, eating more fruits, vegetables, and whole grains, and avoiding unhealthy fats.
· **Decreasing fluid intake**: Decreasing fluid intake is generally not recommended for people with hypertension unless advised by a healthcare provider due to specific medical reasons (such as kidney issues). Hydration is important for maintaining overall cardiovascular health. In fact, dehydration can sometimes cause blood pressure to rise as the body tries to conserve water.

Q.41 **Effective approach in preventing pulmonary embolism is to prevent**

A. Heart Disease
B. Deep Vein Thrombosis
C. Chronic Obstructive Pulmonary Disease
D. Diabetes Mellitus

Answer: B

Sol:

Ans. (b) Deep Vein Thrombosis
Sol. Pulmonary embolism (PE) is most often caused by a **clot that forms in a deep vein** (usually in the legs) and travels to the lungs. Hence, **preventing DVT** is the most effective strategy to avoid PE.
Explanation of each option:
· **(a) Heart Disease** – Increases general risk but is not a direct cause of PE.
· **(b) Deep Vein Thrombosis – Correct.** Primary source of emboli that cause PE.
· **(c) Chronic Obstructive Pulmonary Disease** – Affects lung function but not directly linked to PE.
· **(d) Diabetes Mellitus** – A risk factor for many conditions, but not a direct cause of pulmonary embolism.

Q.42 **The nurse is caring for a patient who is receiving intravenous (IV) fluids. What is the priority for the nurse to assess?**

A. Blood pressure
B. IV site for signs of infiltration or phlebitis
C. Temperature
D. Serum potassium levels

Answer: B

Sol:

· **Blood pressure**: While **blood pressure** is an important parameter to assess, especially in patients receiving IV fluids (as fluid status can affect blood pressure), it is not the **immediate priority** in this situation. The nurse should definitely monitor blood pressure, particularly if the patient is receiving large volumes of IV fluids or if the patient is at risk for **fluid overload** or **hypotension**, but the most immediate concern with IV fluid administration is ensuring the **integrity of the IV site** to prevent complications like infiltration or phlebitis.
· **IV site for signs of infiltration or phlebitis**: **Infiltration** and **phlebitis** are potential complications of IV fluid administration that can occur at the IV insertion site. Infiltration happens when the IV fluid leaks into the surrounding tissue, causing swelling and discomfort, while **phlebitis** is inflammation of the vein that can lead to redness, warmth, and pain at the insertion site. Both conditions can cause significant harm if not detected and managed promptly. Therefore, the nurse's priority should be to assess the **IV site for early signs of infiltration or phlebitis** to prevent further complications like tissue damage or infection.
· **Temperature**: While **temperature** is important to assess in general and could be useful in detecting infection, it is **not the immediate priority** when administering IV fluids. Infection at the IV site or related to the fluid could lead to fever, but the first step is to assess for issues with the IV site itself, such as infiltration or phlebitis. If the patient develops a fever later, then infection at the IV site could be a concern, but it isn't the first thing to monitor in this case.
· **Serum potassium levels**: While **serum potassium levels** are important to monitor, especially if the patient is receiving certain IV fluids (like those containing potassium) or is at risk for electrolyte imbalances, this is not the **immediate priority** in the context of ongoing IV fluid administration. Potassium levels should be monitored as part of a comprehensive assessment but do not need to be checked at every moment during the administration of IV fluids unless there is a specific reason (e.g., the patient is on potassium-containing fluids or has a history of electrolyte imbalances).

Q.43 **A patient with antisocial personality disorder belches loudly. A staff member asks, "Do you know why people find you repulsive?" This statement is most likely to elicit which of the following client reactions:**

A. Defensiveness
B. Embarrassment
C. Shame
D. Remorse

Answer: A

Sol: Here's why:

- **Defensiveness:** Individuals with ASPD often lack empathy and remorse, and they may react to criticism with defensiveness or even hostility. They may deny wrongdoing, blame others, or try to manipulate the situation.
- **Embarrassment:** While some people with ASPD might feel a fleeting moment of embarrassment, it's unlikely to be a lasting reaction due to their reduced emotional sensitivity.
- **Shame:** Shame involves a deep sense of inadequacy or worthlessness. People with ASPD often have an inflated sense of self-importance and wouldn't readily experience shame.
- **Remorse:** Remorse is a genuine regret for causing harm to others. Due to the lack of empathy, individuals with ASPD are unlikely to feel remorse for their actions or their impact on others.

It's important to remember that ASPD is a spectrum disorder, and individuals may exhibit varying degrees of these traits. However, defensiveness is a common reaction to being confronted with their behavior.

Here are some additional points to consider:

- The staff member's approach might be more effective if it focused on specific behaviors and the consequences they have on others, rather than using a judgmental phrase like "repulsive."
- It's important for the staff member to maintain a professional but firm demeanor when interacting with someone with ASPD.

Q.44 **What gauge needle is typically used for intramuscular injections, with a recommended length of 1 1/2 inches, and employs the Z-track method to minimise leakage?**

A. G 24-26
B. G 18-21
C. G 20-23
D. G 22-25

Answer: C

Sol:

(c) G 20-23

Here's the reasoning:

- **Z-track method:** This technique aims to minimize leakage and medication pooling at the injection site. It's often used with slightly larger needles suitable for intramuscular injections.

- **Needle gauge:**

- **G 18-21:** These are larger gauge needles, typically used for thicker medications or in situations requiring deeper intramuscular injections.
- **G 24-26:** These are smaller gauge needles, better suited for subcutaneous injections or for patients with a significant amount of adipose tissue (fat) where a smaller needle is preferred.
- **G 20-23:** This range falls in the middle, making it a good candidate for intramuscular injections with the Z-track method. It provides a balance between needle size to reach the muscle and minimizing discomfort.

While the specific choice might vary depending on factors like medication viscosity and patient anatomy, G 20-23 is the most common range for intramuscular injections using the Z-track method.

Typical intramuscular injection with a Z-track technique:

1. The injection site is cleaned and prepared.
2. The healthcare provider pulls the skin taut at the injection site.
3. The needle is inserted at a 90-degree angle.
4. Once the needle reaches the muscle, the plunger is pulled back slightly to check for blood (indicating inadvertent placement in a vein).
5. The medication is injected.
6. The needle is withdrawn slightly while pulling the skin taut in the opposite direction (creating the "Z" track).
7. A bandage is applied to the injection site.

Q.45 **In which condition is phototherapy used for treatment?**

A. Eczema
B. Diarrhoea
C. Jaundice
D. None of the above

Answer: C

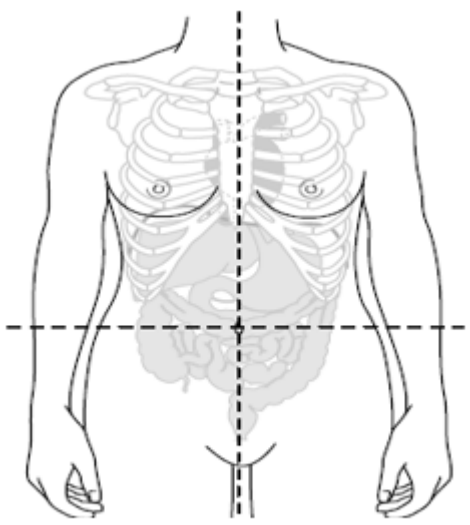
Sol: Ans (c)
Sol. Eczema: Phototherapy is not typically used to treat eczema. Eczema is generally managed with topical treatments, such as corticosteroids or moisturizers, and sometimes systemic medications.
Diarrhoea: Phototherapy is not used for treating diarrhea. Diarrhoea is usually treated with hydration, antibiotics (if bacterial), or anti-diarrheal medications.
Jaundice: Phototherapy is commonly used to treat neonatal jaundice, a condition where there is an excess of bilirubin in the blood. The treatment uses special blue light to break down the bilirubin in the baby's skin, helping the liver to process and eliminate it.
None of the above: This is incorrect, as phototherapy is indeed used to treat jaundice.

Q.46 **What is the dermatome of the umbilicus?**

A. T7
B. T10
C. L1
D. L4

Answer: B

Sol: The anterior abdominalwal lcan be divided into four quadrants- The upper part of the abdomen, just below the breastbone (xiphisternum), is called the epigastrium.
The lower part of the abdomen has three areas:
The right iliac fossa - the area on the right side, near the hip bone
The left iliac fossa - the area on the left side, near the hip bone
The hypogastrium - the central lower part of the abdomen, above the pubic area



The dermatomes of significant structures on the anterior abdominalwall are:
T7 - xiphisternum
T10 - umbilicus
L1 - symphysis pubis Therefore, the dermatome of the umbilicus is T10.

Q.47 **Which structures act as wires of a telephone in the body?**

A. Muscles
B. Nerves
C. Arteries
D. Veins

Answer: B

Sol:

Ans. (b) Sol. Nerves transmit electrical impulses like wires, allowing communication between body parts and the brain.
Explanation of each option:
· **(a) Muscles** – Cause movement but don't conduct electrical signals.
· **(b) Nerves** – **Correct answer.** Carry impulses like electrical wires.
· **(c) Arteries** – Carry oxygenated blood, not impulses.
· **(d) Veins** – Carry deoxygenated blood, not impulses.

Q.48 **While a healthcare team is performing resuscitation for respiratory arrest, it is discovered that a nurse did not open the valve to the oxygen tank, resulting in the client not receiving oxygen. Which of the following ethical principles is involved in this situation?**

A. Battery

B. Nonmaleficence

C. Fidelity

D. Autonomy

Answer: B

Sol: Ans-(b) Nonmaleficence

EXPLANATION

- Nonmaleficence is the ethical principle that obligates healthcare providers to do no harm. In this case, the nurse's failure to open the oxygen tank resulted in harm to the patient by denying them essential life-saving oxygen.

Here's a brief explanation of the other options:

- Battery: This involves harmful or offensive touching of another person without their consent. It does not apply in this situation.
- Fidelity: This refers to faithfulness and loyalty to commitments made. While the nurse may have had a duty of care, the issue here is the failure to act, not a breach of trust.
- Autonomy: This is the right of a patient to make their own healthcare decisions. It is not relevant to this scenario.

Q.49 **Which of the following is a potential serious side effect of monoamine oxidase inhibitors (MAOIs)?**

A. Hypertensive crisis when taken with tyramine-rich foods.
B. Weight gain.
C. Sedation.
D. Dry mouth.

Answer: A

Sol: Sol. Hypertensive crisis when taken with tyramine-rich foods is a serious side effect of monoamine oxidase inhibitors (MAOIs). MAOIs block the breakdown of tyramine, leading to dangerously high blood pressure when consuming aged cheese, cured meats, or fermented foods. This condition requires immediate medical attention.
Explanation of Each Option:
· (a) Hypertensive crisis when taken with tyramine-rich foods: This is the correct answer. MAOIs inhibit the breakdown of tyramine, leading to a sudden and severe increase in blood pressure, which can cause headaches, nausea, and even stroke.
· (b) Weight gain: While some MAOIs may cause weight gain, it is not their most serious side effect. The hypertensive crisis poses a much greater health risk.
· (c) Sedation: Some MAOIs may cause drowsiness, but this is a relatively mild side effect compared to the risk of hypertensive crisis.
· (d) Dry mouth: This is a common but non-life-threatening side effect of MAOIs and many other psychiatric medications. It does not pose the same level of danger as a hypertensive crisis.

Q.50 **A new patient is admitted to a medical unit with *Clostridium difficile*. Which type of precautions or isolation does the nurse know is appropriate for this patient?**

A. Airborne precautions
B. Droplet precautions
C. Contact precautions
D. Protective isolation

Answer: C

Sol:
Ans. (c)
Sol. *Clostridium difficile* (C. difficile) infections require **contact precautions** because the bacteria are spread through contact with contaminated surfaces, equipment, or hands. Strict hand hygiene with soap and water and the use of gloves and gowns are essential when caring for such patients.
Explanation of each option:
(a) Airborne precautions – These are used for infections like tuberculosis and measles that spread via airborne particles, not suitable for C. difficile.
(b) Droplet precautions – Needed for illnesses like influenza and meningitis that spread via respiratory droplets, not applicable here.
(c) Contact precautions – **Correct answer.** C. difficile spreads through spores on surfaces; contact precautions help prevent transmission.
(d) Protective isolation – Used to protect immunocompromised patients from infections, not to prevent the spread of C. difficile to others.

Q.51 **Which defense mechanism involves unconsciously pushing distressing thoughts out of conscious awareness?**

A. Repression
B. Denial
C. Projection
D. Sublimation

Answer: A

Sol:
Repression is an unconscious process by which painful, disturbing, or socially unacceptable thoughts are blocked from conscious awareness. It is one of the most basic defense mechanisms and serves to protect the ego from anxiety caused by inner conflict or trauma.
Explanation of each option:
· (a) Repression – Correct. Automatically excludes distressing thoughts from awareness to reduce mental conflict. The person is unaware of the repression.

· (b) Denial – Refuses to acknowledge an external reality or event (e.g., refusing to accept a diagnosis), but the memory is still present subconsciously.
· (c) Projection – Involves blaming or transferring one's own unwanted feelings or thoughts onto someone else.
· (d) Sublimation – Redirects impulses like anger or lust into positive activities like sports or art, rather than suppressing thoughts.

Q.52 **Why is good nutrition important for children?**

A. It prevents the need for exercise
B. It helps with growth and development
C. It eliminates the risk of infections entirely
D. It ensures they never get hungry

Answer: B

Sol:

Sol. Nutrition is critical for children as it supports brain development, bone growth, and a strong immune system. Nutrient deficiencies in childhood can lead to stunted growth, cognitive impairment, and increased susceptibility to infections, affecting overall health and future well-being.
Explanation of Each Option:
· (a) It prevents the need for exercise: Nutrition and exercise work together to promote health; good nutrition does not replace physical activity.
· (b) It helps with growth and development: Correct answer; proteins, vitamins, and minerals are essential for proper physical and cognitive development.
· (c) It eliminates the risk of infections entirely: While nutrition strengthens immunity, it does not completely eliminate the risk of infections.
· (d) It ensures they never get hungry: Hunger is influenced by meal timing and availability of food, not just nutrition.

Q.53 **Which of the following is a common side effect of tricyclic antidepressants (TCAs)?**

A. Insomnia.
B. Weight loss.
C. Anticholinergic effects (dry mouth, blurred vision).
D. Sexual enhancement.

Answer: C

Sol: Sol. Anticholinergic effects (dry mouth, blurred vision) are common side effects of tricyclic antidepressants (TCAs). These medications block acetylcholine receptors, leading to symptoms such as dry mouth, constipation, urinary retention, and blurred vision. TCAs also have sedative and cardiotoxic effects, requiring careful monitoring.
1. Explanation of Each Option:
1. (a) Insomnia: While some TCAs may cause sleep disturbances, they are generally more sedating rather than causing insomnia.
1. (b) Weight loss: TCAs are more commonly associated with weight gain due to increased appetite rather than weight loss.
1. (c) Anticholinergic effects (dry mouth, blurred vision): This is the correct answer. TCAs block muscarinic acetylcholine receptors, leading to classic anticholinergic side effects like dry mouth, blurred vision, constipation, and urinary retention.
1. (d) Sexual enhancement: TCAs are more likely to cause sexual dysfunction, including reduced libido and erectile dysfunction, rather than enhancing sexual function.

Q.54 **A nurse is caring for a patient receiving hemodialysis. Which of the following complications should the nurse monitor for immediately after the procedure?**

A. Hypotension
B. Hyperkalemia
C. Pulmonary edema
D. Urinary retention

Answer: A

Sol:

· **Hypotension**: **Hypotension** is a common and serious complication after hemodialysis. During dialysis, fluid and electrolytes are removed from the body, which can lead to a **decrease in blood volume** and result in low blood pressure (hypotension). Symptoms of hypotension include dizziness, lightheadedness, nausea, and even fainting. It is critical to monitor blood pressure closely after hemodialysis to detect this complication and take appropriate actions (e.g., administering fluids, adjusting dialysis settings).
· **Hyperkalemia**: **Hyperkalemia** is a concern for patients with kidney failure, but it is typically managed by dialysis. In fact, one of the primary benefits of hemodialysis is that it helps remove excess potassium (which can lead to **life-threatening arrhythmias**). The levels of potassium should be monitored before and after dialysis, but hyperkalemia is usually not a post-dialysis complication unless there are issues with the procedure or fluid balance.
· **Pulmonary edema**: While **pulmonary edema** (fluid accumulation in the lungs) can occur in patients with severe kidney dysfunction, it is not an immediate complication after hemodialysis. In fact, dialysis is intended to **remove excess fluid** from the body, which can help prevent pulmonary

edema. However, if fluid removal is too rapid or excessive, it can lead to **hypotension**, which can indirectly cause or worsen pulmonary edema. Therefore, **hypotension** would be a more immediate concern.
· **Urinary retention**: **Urinary retention** is generally not a complication of hemodialysis. It is more commonly associated with conditions affecting the bladder or prostate. In patients on hemodialysis, **urine output is typically minimal or absent**, especially in those with **end-stage renal disease**. Therefore, urinary retention is not an immediate concern post-hemodialysis.

Q.55 **What is one way proper nutrition can help prevent cardiovascular disease?**

A. By promoting excessive calorie intake
B. By increasing salt consumption
C. By eliminating all carbohydrates from the diet
D. By reducing unhealthy fat and cholesterol intake

Answer: D

Sol: Sol. A diet low in saturated fats and cholesterol helps prevent cardiovascular disease by reducing the buildup of fatty plaques in arteries, which can lead to high blood pressure and heart attacks. Eating fiber-rich foods, lean proteins, and healthy fats (such as omega-3 fatty acids) further supports heart health. Additionally, limiting sugar intake reduces the risk of diabetes, a significant risk factor for cardiovascular disease.
Explanation of Each Option:
· (a) By promoting excessive calorie intake: Overeating leads to obesity, high blood pressure, and diabetes, all of which contribute to heart disease.
· (b) By increasing salt consumption: Excess sodium raises blood pressure, increasing the risk of heart disease. Processed foods are often high in sodium and should be consumed in moderation.
· (c) By eliminating all carbohydrates from the diet: Carbohydrates are essential for energy; choosing whole grains over refined carbs is a better approach.
· (d) By reducing unhealthy fat and cholesterol intake: Correct answer; limiting saturated and trans fats reduces artery blockage and lowers heart disease risk.

Q.56 **When a nurse asks a patient, "What does the phrase 'A rolling stone gathers no moss' mean to you?", what is the nurse assessing?**

A. Test judgement
B. Social judgement
C. Insight
D. Abstract thinking

Answer: D

Sol:
Ans: (d) Abstract thinking
Explanation:
· (d) Abstract thinking: The nurse is assessing the patient's abstract thinking ability, which involves understanding the deeper, non-literal meaning of a metaphor or proverb. Abstract thinking is crucial for interpreting concepts that aren't directly observable or concrete, such as proverbs, metaphors, or idiomatic expressions.
Explanation of Other Options:
· (a) Test judgement: Judgement is assessed by asking the patient to evaluate hypothetical situations, such as "What would you do if you found a wallet on the street?". This tests the patient's ability to make sound decisions, not their ability to interpret abstract ideas.
· (b) Social judgement: Social judgement refers to evaluating someone's understanding and decision-making in social situations. It would be assessed by asking about interactions with others, such as "How would you respond if someone asked you for help in a public place?".
· (c) Insight: Insight refers to the patient's awareness and understanding of their own mental health or condition. It can be assessed by asking the patient if they understand the nature of their illness or condition, such as "Do you think you need treatment?".

Q.57 **Identify an enzyme that is useful for the digestion of fat:**

A. Lipase
B. Lysine
C. Pepsin
D. Amylase

Answer: A

Sol:
Ans. (a) Lipase
Sol. Lipase is an enzyme responsible for the breakdown of fats (lipids) into glycerol and free fatty acids. It is secreted by the pancreas and functions in the small intestine, aiding in fat digestion and absorption.
Explanation of each option:

(a) Lipase – Correct answer. Breaks down fats into fatty acids and glycerol.
(b) Lysine – Incorrect. It is an essential amino acid, not an enzyme.
(c) Pepsin – Incorrect. Aids in the digestion of proteins in the stomach.
(d) Amylase – Incorrect. Helps digest carbohydrates by breaking down starch into sugars.

Q.58 **A nurse caring the patient after cataract surgery should include which of the following care immediately after the surgery?**
1. Administer topical antibiotics
2. Administer topical corticosteroids
3. Administer sedatives
4. Advise activity restriction like bending and lifting

A. 1and 2 only
B. 1,2 and 4
C. 3 and 4
D. 1,2 and 3

Answer: B

Sol:
Ans. (b) Sol. After cataract surgery, the immediate care typically includes:
· 1. Administering topical antibiotics to prevent infection after the surgery.
· 2. Administering topical corticosteroids to reduce inflammation and promote healing.
· 4. Advising activity restriction like bending and lifting to avoid increased pressure on the eye that could impact healing.
· 3. Administering sedatives is generally not required immediately after surgery unless the patient is particularly anxious or agitated, but it is not a routine post-operative care measure.
Thus, the correct answer is (b) 1, 2 and 4.

Q.59 **The nurse has performed nutritional teaching on a client with gout who is placed on a low-purine diet. Which selection by the client would indicate that teaching has been ineffective?**

A. Cabbage

B. Apple

C. Peach cobbler

D. Spinach

Answer: D

Sol:
The answer is: D. Spinach

Explanation:

- Gout is a type of arthritis caused by a buildup of uric acid in the body.
- A low-purine diet is recommended for people with gout to help reduce uric acid levels.
- Spinach is a high-purine food.

Therefore, if the client chooses spinach, it indicates that the teaching about low-purine diet was ineffective.

Q.60 **What is the primary purpose of psychological assessments?**

A. To prescribe medication for mental disorders
B. To identify mental health conditions and assess individual functioning
C. To promote mental hygiene practices

D. To eliminate all psychological distress

Answer: B

Sol: Sol. Psychological assessments are conducted to identify mental health conditions such as anxiety, depression, and schizophrenia. They help assess individuals who are experiencing difficulties at home, work, or school, differentiating mental health conditions from physical health problems.
Explanation of Options:
· (a) To prescribe medication for mental disorders: Psychological assessments help with diagnosis but do not prescribe medication; psychiatrists do.
· (b) To identify mental health conditions and assess individual functioning: Correct answer; these assessments help diagnose and understand an individual's mental health status.
· (c) To promote mental hygiene practices: Mental hygiene focuses on daily habits for mental well-being, not assessments.
· (d) To eliminate all psychological distress: Psychological assessments aim to diagnose and manage conditions, not eliminate all distress.

Q.61 **A nurse is teaching a group of parents about child abuse. What definition of assault should the nurse include in the teaching plan?**

A. Assault is a threat to do bodily harm to another person.
B. It is a legal wrong committed by one person against the property of another.
C. It is a legal wrong committed against the public that is punishable by state law.
D. Assault is the application of force to another person without lawful justification.

Answer: A

Sol:

Ans-(a) Assault is a threat to do bodily harm to another person.
Explanation:
· (a) Assault is a threat to do bodily harm to another person. This is the correct definition. Assault refers to the intentional act of threatening or creating the fear of imminent bodily harm to another person. It doesn't necessarily involve physical contact; the mere threat or attempt to cause harm is sufficient for an act to be considered assault.
· (b) It is a legal wrong committed by one person against the property of another. This describes trespass or property damage, not assault. Assault involves threats or actions that cause fear of physical harm, not damage to property.
· (c) It is a legal wrong committed against the public that is punishable by state law. This describes a criminal offense more broadly and is not specific to assault. Assault is a specific type of legal wrong, but this option does not capture the essence of what assault is.
· (d) Assault is the application of force to another person without lawful justification. This describes battery, not assault. Battery involves actual physical contact or force applied to another person without consent or lawful justification. Assault, on the other hand, involves the threat or fear of harm.
In summary, the correct answer is (a) because it accurately defines assault as a threat to inflict bodily harm, which aligns with the legal understanding of the term.

Q.62 **Which one of the following is a second-line drug for Tuberculosis?**

A. Rifampicin
B. Ethambutol
C. Amikacin
D. Isoniazid

Answer: C

Sol: Ans (c)
Sol. Rifampicin: This is a first-line drug for tuberculosis and is part of the standard treatment regimen due to its effectiveness in killing Mycobacterium tuberculosis.
Ethambutol: This is also a first-line drug used in combination therapy for tuberculosis to prevent drug resistance.
Amikacin: This is a second-line drug for tuberculosis, typically used in cases of multidrug-resistant tuberculosis (MDR-TB) or when first-line drugs are ineffective or not tolerated. This is the correct answer.
Isoniazid: Like Rifampicin and Ethambutol, Isoniazid is a first-line drug used in the primary treatment of tuberculosis.

Q.63 **Kolkata city is situated on the bank of the river _____**

A. Hooghly
B. Krishna
C. Gomti
D. Sutlej

Answer: A

Sol:

Ans. (a)

Sol. Kolkata city is situated on the bank of the **Hooghly River**. The Hooghly is a distributary of the Ganges River and flows through the city, playing a significant role in its history and development as a major port and urban center.

Explanation of each option:

· **(a) Hooghly** – **Correct answer.** Kolkata is situated on the banks of the Hooghly River.

· **(b) Krishna** – Incorrect. The Krishna River is in the southern part of India, not in Kolkata.

· **(c) Gomti** – Incorrect. The Gomti River flows primarily in the Uttar Pradesh region, not near Kolkata.

· **(d) Sutlej** – Incorrect. The Sutlej River flows in the northern part of India, particularly in Punjab.

Q.64 **When a nurse asks a patient, "What does the phrase 'A rolling stone gathers no moss' mean to you?", what is the nurse assessing?**

A. Test judgement
B. Social judgement
C. Insight
D. Abstract thinking

Answer: D

Sol:

Ans: (d) Abstract thinking

Explanation:

· (d) Abstract thinking: The nurse is assessing the patient's abstract thinking ability, which involves understanding the deeper, non-literal meaning of a metaphor or proverb. Abstract thinking is crucial for interpreting concepts that aren't directly observable or concrete, such as proverbs, metaphors, or idiomatic expressions.

Explanation of Other Options:

· (a) Test judgement: Judgement is assessed by asking the patient to evaluate hypothetical situations, such as "What would you do if you found a wallet on the street?". This tests the patient's ability to make sound decisions, not their ability to interpret abstract ideas.

· (b) Social judgement: Social judgement refers to evaluating someone's understanding and decision-making in social situations. It would be assessed by asking about interactions with others, such as "How would you respond if someone asked you for help in a public place?".

· (c) Insight: Insight refers to the patient's awareness and understanding of their own mental health or condition. It can be assessed by asking the patient if they understand the nature of their illness or condition, such as "Do you think you need treatment?".

Q.65 **A cleaning enema is ordered for a 55-year-old client before intestinal surgery. The maximum amount given is**

A. 150 to 200 ml
B. 200 to 400 ml
C. 400 to 750 ml
D. 750 to 1000 ml

Answer: D

Sol:

. Ans (d)

Sol. **Explanation:**

· A **cleaning enema** is typically used before surgery or procedures to empty the bowel and clear out the intestines. The **amount** of enema administered depends on the individual, their age, and the specific purpose of the procedure.

· For an **adult** (like the 55-year-old in this case), the **standard volume** of a cleaning enema is typically between **750 ml and 1000 ml** to ensure effective bowel evacuation.

· **Smaller volumes** such as **150 to 400 ml** may be used for other purposes (e.g., to soften stool or for diagnostic purposes), but for a thorough cleaning before surgery, the higher volumes are more common.

Q.66 **The condition where a patient sees a rope and fears it to be a snake is called _____**

A. Depersonalization
B. Hallucination
C. Illusion
D. Delusion

Answer: C

Sol:

Ans (c)

Sol. Depersonalization: This refers to a feeling of detachment or disconnection from one's own body or thoughts, where the person may feel like an

outside observer of themselves. It does not involve misperception of objects.
Hallucination: This involves perceiving something that is not actually present, such as hearing voices or seeing things that aren't real. However, in this case, the patient is misperceiving the rope, not experiencing an entirely fabricated image.
Illusion: An illusion occurs when a real object (such as a rope) is misperceived or misinterpreted, in this case, as a snake. It is a misperception of something that exists in reality.
Delusion: This refers to a false belief that is strongly held despite evidence to the contrary, such as believing one is being persecuted or has special powers. It does not involve a misperception of sensory input.

Q.67 **Which of the following is a common side effect of antipsychotic medications, particularly first-generation (typical) antipsychotics?**

A. Weight loss.
B. Sexual enhancement.
C. Insomnia.
D. Tardive dyskinesia.

Answer: D

Sol: Sol. Tardive dyskinesia is a common side effect of first-generation (typical) antipsychotics. It is a movement disorder characterized by involuntary, repetitive movements of the face, tongue, and limbs, often developing after long-term use of these medications.
Explanation of Each Option:
· (a) Weight loss: Antipsychotics, particularly second-generation (atypical) ones, are more commonly associated with weight gain rather than weight loss.
· (b) Sexual enhancement: Antipsychotics often cause sexual dysfunction, including decreased libido and erectile dysfunction, rather than enhancing sexual function.
· (c) Insomnia: While some antipsychotics may cause sedation, others may lead to sleep disturbances, but insomnia is not a primary side effect of first-generation antipsychotics.
· (d) Tardive dyskinesia: This is the correct answer. First-generation antipsychotics, such as haloperidol and chlorpromazine, can cause this severe movement disorder due to long-term dopamine receptor blockade.

Q.68 **A nurse is caring for a patient with chronic renal failure. Which of the following complications is the nurse most likely to encounter?**

A. Hyperkalemia
B. Hypoglycemia
C. Hypercalcemia
D. Hypernatremia

Answer: A

Sol:
· **Hyperkalemia**: Hyperkalemia (elevated potassium levels) is a common complication of chronic renal failure. The kidneys lose their ability to effectively excrete potassium, leading to its accumulation in the blood. Hyperkalemia can cause life-threatening cardiac arrhythmias, making it a critical condition to monitor and manage in patients with renal failure.
· **Hypoglycemia**: Hypoglycemia (low blood sugar) is not a typical complication of chronic renal failure. However, patients with diabetes and renal failure may experience altered glucose metabolism, but hyperglycemia is more commonly associated with decreased insulin clearance.
· **Hypercalcemia**: Hypercalcemia (elevated calcium levels) is not commonly associated with chronic renal failure. In fact, patients with chronic renal failure often experience **hypocalcemia** due to impaired activation of vitamin D and secondary hyperparathyroidism.
· **Hypernatremia**: Hypernatremia (elevated sodium levels) is not a typical complication of chronic renal failure. Instead, patients often develop hyponatremia due to fluid retention and dilution of sodium in the bloodstream.

Q.69 **Which of the following medications is commonly prescribed to treat generalized anxiety disorder (GAD)?**

A. Fluoxetine.
B. Haloperidol.
C. Lorazepam.
D. Lithium.

Answer: C

Sol:
Sol. Lorazepam is commonly prescribed for the short-term treatment of generalized anxiety disorder (GAD). It is a benzodiazepine that enhances the effect of gamma-aminobutyric acid (GABA), a neurotransmitter that reduces nervous system activity, helping to relieve anxiety symptoms.
Explanation of Each Option:
· (a) Fluoxetine: This is an SSRI primarily used to treat depression and anxiety disorders, including GAD. However, it is not the most commonly

prescribed medication for immediate anxiety relief.
· (b) Haloperidol: This is an antipsychotic medication mainly used for schizophrenia and psychotic disorders. It is not a standard treatment for GAD.
· (c) Lorazepam: This is a benzodiazepine that provides rapid relief from anxiety symptoms by enhancing GABA activity. It is commonly used for short-term management of GAD but carries a risk of dependence.
· (d) Lithium: This is a mood stabilizer used to treat bipolar disorder, particularly in managing manic and depressive episodes. It is not typically used for treating GAD.

Q.70 . The nurse is caring for a patient immediately after a knee amputation. Which of these assessments should the nurse consider a priority?

A. Monitoring for edema
B. Checking the stump dressing
C. Measuring blood sugar level
D. Observing for infection

Answer: B

Sol:

Ans: (b) Checking the stump dressing
Explanation: After an amputation, monitoring the stump dressing is crucial as it helps identify immediate post-operative complications like excessive bleeding, which could be life-threatening. Observing the dressing can also give clues about infection risks and healing progress.
Additional Information on Post-Amputation Care:
· **Monitoring for Edema:** While edema is common after surgery and should be monitored, it is not as immediately critical as stump dressing assessment.
· **Blood Sugar Level:** Important for diabetic patients but generally not the primary concern post-amputation unless the patient has a known diabetes diagnosis.
· **Observing for Infection:** This becomes critical as healing progresses, but in the immediate post-operative period, bleeding and proper dressing placement are more pressing concerns.
Proper post-amputation care involves a comprehensive approach, with the initial focus on wound site management to ensure a safe recovery trajectory.

Q.71 A nurse caring the patient after cataract surgery should include which of the following care immediately after the surgery?
1. Administer topical antibiotics
2. Administer topical corticosteroids
3. Administer sedatives
4. Advise activity restriction like bending and lifting

A. 1and 2 only
B. 1,2 and 4
C. 3 and 4
D. 1,2 and 3

Answer: B

Sol: Ans. (b) Sol. After cataract surgery, the immediate care typically includes:
· 1. Administering topical antibiotics to prevent infection after the surgery.
· 2. Administering topical corticosteroids to reduce inflammation and promote healing.
· 4. Advising activity restriction like bending and lifting to avoid increased pressure on the eye that could impact healing.
· 3. Administering sedatives is generally not required immediately after surgery unless the patient is particularly anxious or agitated, but it is not a routine post-operative care measure.
Thus, the correct answer is (b) 1, 2 and 4.

Q.72 Which of the following is a cause of secondary postpartum hemorrhage?

A. Laceration of the lower genital tract
B. Involution of the uterus
C. Presence of retained cotyledons
D. Presence of hematological disorders in the mother

Answer: C

Sol:

Ans. (c) Sol. The **presence of retained cotyledons** in the uterus is one of the most common causes of secondary postpartum hemorrhage. When fragments of the placenta, called cotyledons, are not expelled after delivery, they can lead to ongoing bleeding.
Explanation of each option:

· **(a) Laceration of the lower genital tract** – Incorrect. This is typically a cause of primary postpartum hemorrhage, not secondary.
· **(b) Involution of the uterus** – Incorrect. Involution refers to the process by which the uterus returns to its normal size after birth. Delayed involution can cause bleeding, but it's not the most common cause of secondary hemorrhage.
· **(c) Presence of retained cotyledons** – Correct. The presence of retained cotyledons is a key cause of secondary postpartum hemorrhage, leading to prolonged or excessive bleeding due to incomplete expulsion of the placenta after birth.
· **(d) Presence of hematological disorders in the mother** – Incorrect. While hematological disorders can contribute to postpartum hemorrhage, they are typically a predisposing factor rather than a direct cause of secondary hemorrhage.

Q.73 **Which AV block is also referred to as Mobitz-II?**

A. Complete Heart Block
B. Second Degree AV Block
C. Third Degree AV Block
D. First Degree AV Block

Answer: B

Sol:

Ans. (b) Sol. Mobitz type II is a second-degree AV block with intermittent non-conducted P waves.
Explanation of each option:
· **(a) Complete block** – Total dissociation; not Mobitz-II.
· **(b) Second Degree** – **Correct answer.** Mobitz-II is a type of second-degree AV block.
· **(c) Third Degree** – Complete heart block.
· **(d) First Degree** – Prolonged PR interval; not Mobitz-II.

Q.74 **Which of the following is a semisynthetic opioid?**

A. Codeine
B. Pholcodine
C. Meperidine
D. Tramadol

Answer: B

Sol:

Pholcodine is a semisynthetic opioid derived from morphine, used primarily as an antitussive in dry cough preparations. It has weak analgesic properties and low addiction potential compared to morphine. Its mechanism includes suppression of the cough reflex through direct action on the medullary cough center. Though effective, it has been banned in some countries due to concerns about allergic cross-reactivity with neuromuscular blockers. It is still available in some over-the-counter formulations. Being semisynthetic, it is modified from natural opium alkaloids.
Explanation of each option:
· (a) Codeine – It is a natural opium alkaloid extracted from poppy, commonly used in pain and cough medications. It is not semisynthetic.
· (b) Pholcodine – Correct answer. It is derived from morphine and chemically modified, making it semisynthetic. It is mainly used as a cough suppressant.
· (c) Meperidine – A fully synthetic opioid analgesic used in postoperative and acute pain situations. It has no natural source.
· (d) Tramadol – A synthetic opioid with additional non-opioid properties; it is not derived from morphine or any opium alkaloid.

Q.75 **Which psychological theory emphasizes the importance of self-actualization and personal growth?**

A. Behavioral theory
B. Cognitive theory
C. Humanistic theory
D. Psychodynamic theory

Answer: C

Sol: S

(c) Humanistic theory.
Humanistic theory, particularly the work of Abraham Maslow, places a strong emphasis on self-actualization, which is the realization of one's full potential. This theory focuses on personal growth, creativity, and the overall potential of the individual.

Q.76 **Mental hygiene helps in:**

A. Increasing emotional stability and improving quality of life
B. Eliminating all sources of stress
C. Suppressing emotions to avoid conflict
D. Encouraging avoidance of all social interactions

Answer: A

Sol: Sol. Mental hygiene promotes habits that enhance emotional stability, resilience, and overall well-being, helping individuals handle stress effectively.
Explanation of Options:
· (a) Increasing emotional stability and improving quality of life: Correct answer; mental hygiene supports emotional well-being.
· (b) Eliminating all sources of stress: Stress cannot be completely eliminated, but it can be managed.
· (c) Suppressing emotions to avoid conflict: Suppressing emotions can lead to more mental distress rather than resolving issues.
· (d) Encouraging avoidance of all social interactions: Healthy relationships are essential for mental health.

Q.77 **Which of the following is a key aspect of mental health?**

A. The ability to manage emotions healthily
B. The absence of negative emotions
C. The elimination of all stress
D. The ability to ignore emotional difficulties

Answer: A

Sol: Sol. Mental health involves managing emotions healthily, coping with stress, and building relationships. It does not mean eliminating stress but learning how to handle it effectively.
Explanation of Options:
· (a) The ability to manage emotions healthily: Correct answer; managing emotions effectively is a core aspect of mental health.
· (b) The absence of negative emotions: Mental health does not mean never feeling negative emotions, but knowing how to cope with them.
· (c) The elimination of all stress: Stress is a natural part of life; mental health helps manage it, not eliminate it.
· (d) The ability to ignore emotional difficulties: Ignoring emotional difficulties can worsen mental health rather than improve it.

Q.78 **Growth hormone will be secreted by which of the following endocrine glands?**

A. Adrenal
B. Pituitary
C. Ovaries
D. Testes

Answer: B

Sol: Ans (b)
Sol. Adrenal: The adrenal glands produce hormones such as adrenaline, cortisol, and aldosterone, but they do not secrete growth hormone.
Pituitary: The pituitary gland, specifically the anterior pituitary, secretes growth hormone (GH), which is responsible for stimulating growth, cell reproduction, and regeneration in the body. This is the correct answer.
Ovaries: The ovaries produce sex hormones such as estrogen and progesterone but do not secrete growth hormone.
Testes: The testes primarily produce testosterone and sperm cells. Growth hormone is not secreted by the testes.

Q.79 **The nurse is assessing a client with hypothyrodism . Which clinical manifestation would the nurse expect to find in this client ?**

A. Weight loss
B. Tachycardia
C. Cold intolerance
D. Exophthalmos

Answer: C

Sol: **(c) Cold intolerance**
Explanation:
Hypothyroidism is characterized by a decreased production of thyroid hormones, which regulate metabolism. As a result, the body's ability to produce heat is reduced, leading to **cold intolerance**.

· **Weight loss** is associated with hyperthyroidism.
· **Tachycardia** is also associated with hyperthyroidism.
· **Exophthalmos** (bulging eyes) is a characteristic of Graves' disease, a type of hyperthyroidism.

Q.80 **Which type of reinforcement increases the likelihood of a behavior being repeated?**

A. Positive reinforcement
B. Negative reinforcement
C. Punishment
D. Extinction

Answer: A

Sol: S
(a) Positive reinforcement.
Positive reinforcement involves adding a desirable stimulus after a behavior to increase the likelihood of that behavior happening again. For example, praising a child for good behavior or giving a dog a treat for obeying a command.

Q.81 **Osmotic pressure and acid-base balance of body fluids are maintained by:**

A. Sodium
B. Magnesium
C. Fluorine
D. Zinc

Answer: A

Sol:
Ans. (a) Sol. Sodium is the principal extracellular ion, regulating fluid balance and pH.
Explanation of each option:
· **(a) Sodium** – **Correct answer.** Crucial for osmotic balance and pH regulation.
· **(b) Magnesium** – Involved in enzyme functions, not primary osmotic balance.
· **(c) Fluorine** – Helps in dental health, not fluid balance.
· **(d) Zinc** – Role in immunity and wound healing, not acid-base balance.

Q.82 **Which type of family comes under the male head of the family possessing all powers?**

A. Nuclear family
B. Matriarchal family
C. Joint family
D. Patriarchal family

Answer: D

Sol: **Ans. (D)**
Sol. A Patriarchal family is one in which the male head of the family holds all the powers and authority. In this type of family, the father or the eldest male member has significant control over family decisions, finances, and other important aspects.
Explanation of each option:
· **(A) Nuclear family – Incorrect. A nuclear family consists of parents and their children, but it does not imply a system where the male head has all the powers.**
· **(B) Matriarchal family – Incorrect. A matriarchal family is one where the female head of the family holds power, not the male.**
· **(C) Joint family – Incorrect. A joint family includes extended family members living together, and power can be shared or depend on the family structure.**
· **(D) Patriarchal family – Correct answer. In a patriarchal family, the male head possesses all the authority and decision-making power.**

Q.83 Which chromosomal disorder is associated with trisomy 13?

A. Cri-du-chat syndrome
B. Edwards syndrome

C. Patau syndrome
D. Fragile X syndrome

Answer: C

Sol:

Patau syndrome, or trisomy 13, causes severe neurological and facial defects like microcephaly, cleft lip/palate, polydactyly, and holoprosencephaly. Most affected infants die within the first few months of life due to severe organ malformations.
Explanation of each option:
· (a) Cri-du-chat syndrome – Caused by a deletion on chromosome 5p; associated with cat-like cry, microcephaly, and intellectual disability.
· (b) Edwards syndrome – Trisomy 18, not trisomy 13; different set of features including clenched fists and overlapping fingers.
· (c) Patau syndrome – Correct. Trisomy 13; associated with profound structural abnormalities and poor survival.
· (d) Fragile X syndrome – Caused by CGG repeat expansion on the FMR1 gene on the X chromosome; leads to intellectual disability, long face, large ears.

Q.84 **A patient is in the stage of dying and says, "*I just want to see my grandchildren's birth, then I am ready.*" Identify the stage of dying.**

A. Acceptance
B. Anger
C. Bargaining
D. Depression

Answer: C

Sol:

Ans. (c) Bargaining
Sol. Bargaining is the third stage in Kubler-Ross's Five Stages of Grief. In this stage, patients attempt to negotiate or make deals in an attempt to delay death or gain more time. This often includes promises to a higher power or setting personal milestones before they are ready to accept death.
Explanation of each option:
· (a) Acceptance – Incorrect. Acceptance occurs when a patient comes to terms with death without resistance or emotional struggle.
· (b) Anger – Incorrect. Anger is characterized by resentment and frustration about the situation.
· (c) Bargaining – Correct answer. This stage involves making deals or seeking extensions to life events before accepting death.
· (d) Depression – Incorrect. Depression is marked by sadness, withdrawal, and despair over impending death.

Q.85 **Which chromosomal disorder is characterized by trisomy of chromosome 21?**

A. Edwards syndrome
B. Patau syndrome
C. Down syndrome
D. Turner syndrome

Answer: C

Sol:

Down syndrome is the most common viable chromosomal disorder caused by trisomy 21, meaning the presence of three copies of chromosome 21. It leads to features such as intellectual disability, flat facial profile, epicanthal folds, single palmar crease, and an increased risk of congenital heart disease and leukemia. Most individuals can survive into adulthood with supportive care.
Explanation of each option:
· (a) Edwards syndrome – Trisomy 18, not 21; presents with clenched fists, cardiac issues, and poor prognosis. It is a more severe condition with early mortality in most cases.
· (b) Patau syndrome – Trisomy 13; involves midline defects like cleft lip/palate and neurological abnormalities such as holoprosencephaly. Most infants do not survive beyond a few weeks or months.
· (c) Down syndrome – Correct. Trisomy 21; most common cause of syndromic intellectual disability, with relatively longer life expectancy than other trisomies.
· (d) Turner syndrome – Caused by monosomy X (45, X), not trisomy. It only affects females and is not associated with an extra chromosome 21.

Q.86 **Transforming unacceptable impulses into socially acceptable actions exemplifies which defense mechanism?**

A. Sublimation
B. Rationalization
C. Denial
D. Displacement

Answer: A

Sol:

Sublimation is a mature and socially constructive defense mechanism. It involves redirecting inappropriate or socially unacceptable impulses (like aggression or sexual desires) into productive or creative outlets such as sports, writing, or music.

Explanation of each option:

· (a) Sublimation – Correct. Redirects disturbing drives into activities that are beneficial and socially valued, such as art, work, or fitness.

· (b) Rationalization – Provides logical or socially acceptable reasons to justify inappropriate behavior or failure, often to preserve self-esteem.

· (c) Denial – Refuses to accept the reality of an unpleasant situation, which may delay necessary action or coping.

· (d) Displacement – Shifts emotional reactions from the original source of conflict to a safer substitute, but it doesn't convert it into a positive act.

Q.87 What role does stress management play in mental health?

A. It helps individuals cope with life's challenges more effectively
B. It eliminates all stress permanently
C. It prevents all negative emotions from occurring
D. It ensures a person never experiences anxiety

Answer: A

Sol: Sol. Stress management techniques, such as mindfulness, exercise, and relaxation strategies, help individuals cope with challenges effectively. Learning how to handle stress improves resilience and emotional well-being.

Explanation of Each Option:

· (a) It helps individuals cope with life's challenges more effectively: Correct answer. Stress management enhances coping skills and emotional regulation.

· (b) It eliminates all stress permanently: Impossible, as stress is a natural part of life. The goal is to manage it, not eliminate it.

· (c) It prevents all negative emotions from occurring: Negative emotions are unavoidable, but stress management helps regulate them.

· (d) It ensures a person never experiences anxiety: Everyone experiences anxiety sometimes; managing it effectively is key.

Q.88 A nurse is providing discharge education to a patient who is prescribed warfarin. Which of the following should the nurse include in the teaching?

A. "Avoid foods high in vitamin K."
B. "You will need to limit your fluid intake."
C. "You can stop taking the medication when your INR is normal."
D. "Increase your intake of dairy products."

Answer: A

Sol:

· **Avoid foods high in vitamin K: Warfarin** is an **anticoagulant** (blood thinner) that works by inhibiting the action of vitamin K, which is necessary for blood clotting. Therefore, patients taking warfarin need to **maintain a consistent intake of vitamin K** to prevent fluctuations in the effectiveness of the medication. **Foods high in vitamin K**, such as **leafy green vegetables** (e.g., spinach, kale, and broccoli), can interfere with warfarin's ability to prevent clotting. The nurse should educate the patient to avoid large changes in vitamin K intake and to be consistent with the amount they consume.

· **You will need to limit your fluid intake**: This statement is not relevant to warfarin therapy. There is no general recommendation to **limit fluid intake** for patients on warfarin unless they have other conditions that require fluid restriction (e.g., heart failure or kidney disease). Warfarin primarily affects clotting, not fluid balance, so this is not part of standard discharge education for a patient taking warfarin.

· **You can stop taking the medication when your INR is normal:** This statement is **incorrect**. **INR (International Normalized Ratio)** is a measure of how long it takes for blood to clot and is used to monitor the effectiveness of warfarin. However, the patient should **not stop taking warfarin** when their INR is normal. Warfarin therapy is typically long-term, and the INR needs to be monitored regularly. Stopping warfarin abruptly could lead to **increased risk of clot formation**. The patient should only stop or adjust the medication under a healthcare provider's guidance.

· **Increase your intake of dairy products**: There is no need for patients on warfarin to **increase their intake of dairy products**. While dairy is generally healthy, it is not particularly relevant to the management of warfarin therapy. The focus should be on maintaining a consistent intake of **vitamin K**, not on increasing dairy consumption. Additionally, some dairy products (like cheese) can have moderate amounts of vitamin K, but the primary concern is avoiding excessive fluctuations in vitamin K, not increasing dairy intake.

Q.89 Which of the following drugs is most commonly used to treat attention-deficit hyperactivity disorder (ADHD)?

A. Methylphenidate.
B. Haloperidol.
C. Clomipramine.
D. Fluoxetine.

Answer: A

Sol: Sol. Methylphenidate is the most commonly used drug to treat attention-deficit hyperactivity disorder (ADHD). It is a central nervous system stimulant that increases dopamine and norepinephrine levels in the brain, improving attention, focus, and impulse control in individuals with ADHD.
Explanation of Each Option:
· (a) Methylphenidate: This is the correct answer. It is a stimulant medication (e.g., Ritalin, Concerta) widely prescribed for ADHD to enhance cognitive function and self-regulation.
· (b) Haloperidol: This is a first-generation antipsychotic used primarily for schizophrenia and severe behavioral disorders, but it is not a standard treatment for ADHD.
· (c) Clomipramine: This is a tricyclic antidepressant mainly used for obsessive-compulsive disorder (OCD) and depression. It is not commonly prescribed for ADHD.
· (d) Fluoxetine: This is a selective serotonin reuptake inhibitor (SSRI) used to treat depression and anxiety disorders. While it may be prescribed for coexisting anxiety in ADHD patients, it is not a primary ADHD treatment.

Q.90 **Which of the following is NOT a key element of mental hygiene?**

A. Developing tolerance and praise
B. Encouraging self-blame
C. Practicing stress management techniques
D. Maintaining emotional stability

Answer: B

Sol: Sol. Mental hygiene encourages self-awareness and personal growth rather than self-blame, which can negatively impact emotional well-being. Blaming oneself excessively can lead to guilt, anxiety, and depression.
Explanation of Each Option:
· (a) Developing tolerance and praise: Encouraging tolerance and positive reinforcement is part of good mental hygiene.
· (b) Encouraging self-blame: Correct answer. Self-blame is counterproductive to mental well-being.
· (c) Practicing stress management techniques: Managing stress through healthy coping mechanisms is a crucial part of mental hygiene.
· (d) Maintaining emotional stability: Good mental hygiene helps individuals achieve emotional balance.

Q.91 **Which type of nephrons have short loops of Henle that do not dip far beyond the cortex?**

A. Cortical nephrons
B. Papillary nephrons
C. Medullary nephrons
D. Juxtamedullary nephrons

Answer: A

Sol:

Ans: (a) **Cortical nephrons Sol. Cortical nephrons** are the type of nephrons in the kidneys that have **short loops of Henle**, which do not extend deeply into the **medulla** of the kidney but remain confined mainly to the **cortex**. These nephrons are responsible for the majority of the kidney's filtration and are found in the outer portion of the kidney.
Explanation of each option:
· **(a) Cortical nephrons**: Correct answer. These nephrons have relatively **short loops of Henle** that are confined mainly to the **cortex** of the kidney.
· **(b) Papillary nephrons**: This is not a standard term used in nephrology, and it is not related to the function or structure of nephrons.
· **(c) Medullary nephrons**: This is incorrect as **medullary nephrons** are not a common classification. **Juxtamedullary nephrons** are those that have long loops of Henle that extend deep into the **medulla**.
· **(d) Juxtamedullary nephrons**: These nephrons have **long loops of Henle** that extend deep into the **medulla** of the kidney, which allows for greater concentration of urine, unlike cortical nephrons.

Q.92 **What is the legal gestational age limit for abortion under the Medical Termination of Pregnancy (Amendment) Act, 2021 in India for special categories, including minors?**

A. 12 weeks
B. 20 weeks
C. 24 weeks
D. 28 weeks

Answer: C

Sol:

As per the MTP (Amendment) Act, 2021, the legal limit for abortion is extended to 24 weeks for certain categories like survivors of rape, incest, or minors. This amendment was made to address the specific needs and vulnerabilities of adolescent girls and others with special circumstances.

Explanation of each option:

· (a) 12 weeks – Earlier limit for abortion under the older law; currently outdated for special categories.

· (b) 20 weeks – Standard upper limit for most women, but not for special categories like minors.

· (c) 24 weeks – Correct. Extended limit under the amended MTP Act for adolescents and special cases.

· (d) 28 weeks – No legal provision allows abortion beyond 24 weeks except in severe fetal abnormalities.

Q.93 What is the common pathophysiological mechanism of acute pancreatitis?

A. Overproduction of enzymes
B. Malabsorption of enzymes
C. Auto digestion of pancreas
D. Formation of Neo β-Pancreatic cells

Answer: C

Sol:

Ans. (c) Auto digestion of pancreas

Sol. Acute pancreatitis occurs due to the premature activation of digestive enzymes (particularly trypsin) within the pancreas, leading to self-digestion, inflammation, and tissue damage. This process triggers local and systemic inflammatory responses, resulting in pain, edema, and potential complications such as necrosis or hemorrhage.

Explanation of each option:

· (a) Overproduction of enzymes – Incorrect. The issue is not excess enzyme production, but premature activation within the pancreas.

· (b) Malabsorption of enzymes – Incorrect. Malabsorption occurs in chronic pancreatic disorders, not acute pancreatitis.

· (c) Auto digestion of pancreas – Correct answer. Pancreatic enzymes (trypsin, lipase) digest pancreatic tissue, causing inflammation and necrosis.

· (d) Formation of Neo β-Pancreatic cells – Incorrect. This is not related to pancreatitis; β-cells are responsible for insulin secretion in the pancreas.

Q.94 Congenital obstruction of the nare (nostril) at the entrance to the nasopharynx is called

A. Tracheoesophageal fistula
B. Esophageal atresia
C. Choanal atresia
D. Diaphragmatic Hernia

Answer: C

Sol:

- **Tracheoesophageal fistula:** This is a birth defect where the esophagus (food tube) and trachea (windpipe) are abnormally connected. It has nothing to do with the nasal passages.
- **Esophageal atresia:** This is another birth defect where the esophagus is incompletely formed, creating a blockage that prevents food from reaching the stomach. Again, it's not related to the nasal cavity.
- **Choanal atresia:** This is a condition where there is a blockage (atresia) in the choanae, which are the openings that connect the nasal cavity to the nasopharynx (upper part of the throat behind the nose). This matches the description of congenital obstruction at the entrance to the nasopharynx.
- **Diaphragmatic Hernia:** This is a birth defect where the diaphragm (muscle separating the chest and abdomen) has an opening, allowing abdominal organs to move into the chest cavity. It doesn't affect the nasal passages.

Therefore, choanal atresia is the most fitting term for congenital obstruction of the nare at the entrance to the nasopharynx.

Q.95 Which nutritional problem would necessitate the nurse to notify the healthcare provider for a client receiving an IV infusion of 5% dextrose in water, who is experiencing weight loss and negative nitrogen balance?

A. Excessive carbohydrate intake

B. Lack of protein supplementation

C. Lack of Fat

D. Insufficient intake of water-soluble vitamins

Answer: B

Sol: (b) Lack of protein supplementation

Explanation:

Here's why (b) is the most likely nutritional problem and the other options are incorrect for this scenario:

· (b) Lack of protein supplementation: The client is experiencing weight loss and negative nitrogen balance. Nitrogen is a key component of protein, and a negative balance indicates the body is breaking down more protein than it's building. This suggests the client might not be getting enough protein intake, especially considering they're receiving only 5% dextrose in water (D5W) which is primarily sugar and lacks protein.

· (a) Excessive carbohydrate intake: While excessive calorie intake can lead to weight gain, it's not the primary concern here. The client needs protein for tissue repair and maintenance, not just calories from sugar.

· (d) Insufficient intake of water-soluble vitamins: D5W is mostly water and wouldn't necessarily address protein deficiency. Water-soluble vitamins are essential, but protein needs are more critical in this situation.

Additional Information:

· IV infusion of 5% dextrose in water (D5W): This is a clear liquid solution providing calories (from sugar) and water but lacking protein, fat, electrolytes, and vitamins. It's often used for hydration or to maintain blood sugar levels, but not as a complete source of nutrition.

· Negative nitrogen balance: This occurs when the body releases more nitrogen (mostly from protein breakdown) than it takes in through protein intake. It can lead to muscle wasting and other health problems.

· Importance of protein in wound healing and recovery: Protein is essential for building and repairing tissues, including during illness or recovery from surgery. When protein intake is insufficient, the body breaks down muscle tissue for its protein needs, leading to weight loss and negative nitrogen balance.

When to notify the healthcare provider:

As a nurse, if you identify a client receiving D5W who is experiencing weight loss and negative nitrogen balance, it's crucial to notify the healthcare provider. They can assess the situation and potentially order additional protein supplementation to address the client's specific needs. This might involve adding protein solutions to the IV fluids or starting additional nutritional support through other routes (e.g., enteral feeding).

Q.96 What is the potential hazard for the laparoscopist when inserting ports at the umbilicus?

A. Injury to the superficial blood vessels
B. Damage to the linea alba
C. Penetration of the urachus
D. Both a and c

Answer: D

Sol: The umbilicus (belly button) is a special area on the front of the abdomen. It has some important structures that the surgeon needs to be careful about when performing laparoscopic surgery.
The urachus is a leftover structure from when the baby was in the womb. It connects the top of the bladder to the umbilicus. This urachus can be a problem if the surgeon accidentally punctures it while inserting the laparoscopic instruments through the umbilicus.
Additionally, the umbilicus is the thinnest and weakest part of the front abdominal wall. It also has some small blood vessels running just under the skin in this area. So, the surgeon has to be cautious not to accidentally cut or damage these superficial blood vessels when inserting the laparoscopic tools through the umbilicus.
In summary, the main hazards the surgeon needs to watch out for when inserting instruments through the umbilicus during laparoscopic surgery are:
1. Accidentally puncturing the urachus

2. Cutting or damaging the superficial blood vessels
So the surgeon has to be very careful and aware of these potential problems when using the umbilicus as the entry point for laparoscopic procedures.

Q.97 **Turner syndrome is associated with which chromosomal abnormality?**

A. 47, XXY
B. 45, X
C. 46, XY
D. 47, XXX

Answer: B

Sol:

Turner syndrome occurs in females who are missing one X chromosome, resulting in a 45, X karyotype. Clinical features include short stature, webbed neck, shield chest, amenorrhea, and streak ovaries. These patients are typically infertile and may have normal intelligence or mild learning difficulties.
Explanation of each option:
· (a) 47, XXY – Klinefelter syndrome, seen in males with tall stature, small testes, gynecomastia, and infertility.
· (b) 45, X – Correct. This monosomy leads to Turner syndrome, a condition exclusive to females with distinct physical and reproductive features.
· (c) 46, XY – Normal male karyotype. It is not associated with Turner syndrome.
· (d) 47, XXX – Triple X syndrome; females are usually asymptomatic or may have tall stature and minor learning problems.

Q.98 **A nurse is providing instructions to a patient who is on cyclosporine therapy following a kidney transplant. Which potential issue should the patient be most vigilant about?**

A. Symptoms of infection
B. Low blood pressure
C. Digestive problems
D. Hair loss

Answer: A

Sol:

Answer: (a) Symptoms of infection Concept:
· Kidney Transplantation: This is a surgical procedure where a healthy kidney from a donor is transplanted into a patient with end-stage kidney disease. Depending on the source, it can be classified as either deceased-donor or living-donor transplantation.
· Cyclosporine Therapy: Cyclosporine is an immunosuppressive medication commonly prescribed to patients following organ transplants, including kidney transplants. It prevents the body's immune system from attacking the newly transplanted organ, thereby reducing the risk of rejection.
Explanation:
· Mode of Action: Cyclosporine works by inhibiting the production of cytokines, particularly interleukin-2, which are essential for T-cell activation. This suppression of the immune response helps prevent organ rejection but also increases the risk of infections.
· Potential Issue: Due to its immunosuppressive properties, patients on cyclosporine are more susceptible to infections because their immune system is less capable of fighting off pathogens. Signs of infection may include fever, fatigue, sore throat, or any unusual symptoms that should be reported to a healthcare provider immediately.
Why Other Options Are Incorrect:
1. Low Blood Pressure: While some immunosuppressive drugs can affect blood pressure, it is not the primary concern with cyclosporine therapy.
2. Digestive Problems: Cyclosporine can cause gastrointestinal side effects, but they are not as critical as the risk of infection.
3. Hair Loss: Hair loss is not a common or serious side effect associated with cyclosporine.
Summary: The most important issue for a patient on cyclosporine therapy to be vigilant about is the risk of infection. Due to the immunosuppressive nature of the drug, any signs of infection should be immediately reported and treated.

Q.99 **The nurse is caring for a patient receiving warfarin therapy. Which of the following foods should the nurse advice the patient to limit?**

A. Dairy products
B. Green leafy vegetables
C. Whole grains
D. Fruits

Answer: B

Sol:

· **Dairy products**: Dairy products do not have a significant effect on warfarin therapy. However, **excessive vitamin K intake** is the primary concern with warfarin therapy, and dairy products generally do not interfere with warfarin's action. Some dairy products can be high in calcium, but this does not

significantly affect warfarin's action unless there is a very high intake of calcium or if the patient is using calcium supplements with warfarin.
· **Green leafy vegetables**: **Green leafy vegetables** (e.g., spinach, kale, broccoli, and lettuce) are high in **vitamin K**, which plays a key role in **blood clotting**. Warfarin works by inhibiting the action of vitamin K, and **excessive intake of vitamin K-rich foods** can counteract warfarin's effectiveness, leading to **reduced anticoagulation** and a **higher risk of clotting**. Therefore, it is important for patients on warfarin to **limit** their intake of green leafy vegetables to maintain a consistent level of vitamin K intake and ensure that warfarin works effectively.
· **Whole grains**: Whole grains, such as brown rice, oats, and whole wheat, do not have a significant effect on warfarin therapy. While they are a healthy part of a balanced diet, they do not interact directly with warfarin or influence its anticoagulation effect. There are no specific restrictions on whole grains for patients taking warfarin.
· **Fruits**: Most fruits, such as apples, bananas, oranges, and berries, do not interact with warfarin. **Vitamin K** content in fruits is generally low, so there is no need to limit fruit intake when on warfarin therapy. However, patients should be cautious with certain fruit juices (like grapefruit juice), which can interact with other medications, but this does not typically apply to warfarin.
· Bottom of Form

Q.100 **An intern nurse was asked to insert a nasogastric tube in a patient. What would be the appropriate decision for the intern nurse?**

A. Insert the nasogastric tube as requested
B. Request the senior nurse to supervise
C. Request the instructor from the nursing college to assist
D. Deny and back out from inserting the nasogastric tube

Answer: B

Sol:

Ans: (b) Request the senior nurse to supervise
Explanation:
As an **intern nurse**, performing a procedure like **nasogastric tube insertion** may not yet be within their **independent scope of practice**. However, it is a **learning opportunity** and an important part of their clinical training.
Why "Request the senior nurse to supervise" is Correct:
1. **Supervised Practice:**
· Performing the task under the **direct supervision of a senior nurse** ensures **patient safety** and allows the intern to **gain confidence and competence** in the skill.
2. **Learning Opportunity:**
· Supervision allows the intern to **ask questions** and receive **real-time feedback** during the procedure.
3. **Professional Accountability:**
· The intern adheres to **professional and institutional guidelines** by involving a qualified senior nurse.
Other Options Explained:
· **(a) Insert the nasogastric tube as requested:**
· Incorrect because the intern may **lack experience and confidence**, potentially putting the patient at risk.
· **(c) Request the instructor from the nursing college to assist:**
· While the instructor could provide guidance, they may **not be immediately available in a clinical setting**.
· **(d) Deny and back out from inserting the nasogastric tube:**
· Incorrect because refusing without seeking support **misses an opportunity for learning** and delays patient care.

Q.101 **Which of the following is lined by columnar epithelium?**

A. Vulva
B. Vagina
C. Endocervix
D. Bladder

Answer: C

Sol: The anterior abdominal wall, vulva, and vagina are lined with squamous epithelium.
The epithelium lining the endocervix and uterine cavity is columnar.
The bladder is lined by transitional epithelium, which becomes columnar.
The anal verge is lined by squamous epithelium, but it changes to columnar immediately inside the anus and into the rectum.

Q.102 **Which of the following diseases is capable of infecting others before its onset of illness?**

A. Mumps
B. Typhoid
C. Malaria
D. Tuberculosis

Answer: A

Sol:

Ans. (a) Mumps

Sol. Mumps is a viral disease caused by the mumps virus. It is contagious even before symptoms appear, particularly in the 2 days before the onset of swelling and up to 5 days after. The virus spreads through respiratory droplets and direct contact with saliva.

Explanation of each option:

· **(a) Mumps – Correct answer.** Mumps can infect others before symptoms like swelling of the salivary glands become evident.

· **(b) Typhoid – Incorrect.** Typhoid is primarily spread through contaminated food and water, and transmission mainly occurs from symptomatic carriers.

· **(c) Malaria – Incorrect.** Malaria is transmitted through mosquito bites and does not spread directly from person to person before symptom onset.

· **(d) Tuberculosis – Incorrect.** TB is an airborne disease, but it is usually contagious only when symptoms like persistent cough develop.

Q.103 **When a nurse asks a patient, "What does the phrase 'A rolling stone gathers no moss' mean to you?", what is the nurse assessing?**

A. Test judgement
B. Social judgement
C. Insight
D. Abstract thinking

Answer: D

Sol:

Ans: (d) Abstract thinking

Explanation: The nurse is assessing the patient's **abstract thinking** by evaluating their ability to interpret metaphors or proverbs, which require thinking beyond literal meanings.

· **Test judgement** assesses decision-making abilities in practical situations.

· **Social judgement** involves understanding and evaluating interpersonal behavior.

· **Insight** refers to a patient's awareness of their own condition or circumstances.

Q.104 **When someone reverts to an earlier stage of development in response to stress, which defense mechanism are they displaying?**

A. Regression
B. Repression
C. Displacement
D. Sublimation

Answer: A

Sol:

Regression involves reverting to earlier, more childlike behaviors as a way to cope with anxiety or stress. For example, an adult under pressure may pout or throw a tantrum similar to how they behaved in childhood.

Explanation of each option:

· (a) Regression – Correct. Brings back childhood behaviors like thumb-sucking or baby talk during emotionally overwhelming situations.

· (b) Repression – Prevents unpleasant inner thoughts or memories from reaching consciousness, rather than behaviorally regressing.

· (c) Displacement – Expresses emotions like anger or frustration onto someone or something less threatening.

· (d) Sublimation – Converts strong impulses into socially useful activities, not regressive behavior.

Q.105 **What is a major goal of psychological assessments?**

A. To provide immediate solutions to all mental health problems
B. To assess cognitive, emotional, and behavioral functioning
C. To prevent individuals from experiencing negative emotions
D. To control people's thoughts and behaviors

Answer: B

Sol: Sol. Psychological assessments aim to evaluate cognitive, emotional, and behavioral functioning to diagnose mental health conditions and guide treatment plans.

Explanation of Options:

· (a) To provide immediate solutions to all mental health problems: Psychological assessments help with diagnosis, but treatment takes time.

· (b) To assess cognitive, emotional, and behavioral functioning: Correct answer; assessments evaluate various aspects of mental functioning.
· (c) To prevent individuals from experiencing negative emotions: Negative emotions are a natural part of life and cannot be entirely prevented.
· (d) To control people's thoughts and behaviors: Psychological assessments are diagnostic tools, not methods of control.

Q.106 **The maternal mortality ratio is expressed in terms of:**

A. 1000 live births
B. 100 live births
C. 10000 live births
D. 100000 live births

Answer: D

Sol:

Ans. (d) Sol. Maternal Mortality Ratio (MMR) is defined as the number of maternal deaths per 100,000 live births.
Explanation of each option:
· **(a) 1000 live births** – Infant mortality rate is based on this.
· **(b) 100 live births** – Used for percentage-based rates.
· **(c) 10000 live births** – Not standard unit.
· **(d) 100000 live births** – **Correct answer.** Global standard for expressing MMR.

Q.107 **Which of the following body systems is primarily responsible for maintaining homeostasis?**

A. Digestive System and Integumentary System
B. Digestive System and Respiratory System
C. Integumentary System and Endocrine System
D. Endocrine System and Nervous System

Answer: D

Sol:

Ans: (d) **Endocrine System and Nervous System Sol.** The **endocrine system** and the **nervous system** are primarily responsible for maintaining **homeostasis** in the body. These systems work together to regulate various processes such as **temperature control**, **blood pressure**, **hormone levels**, and other vital functions.
· The **nervous system** regulates rapid, short-term responses to changes in the environment, such as regulating heart rate, breathing, and reflex actions.
· The **endocrine system** controls slower, long-term processes like metabolism, growth, and reproductive functions through the release of hormones that help regulate internal balance (homeostasis).
Explanation of each option:
· **(a) Digestive System and Integumentary System**: The digestive system processes food and absorbs nutrients, and the integumentary system (skin) provides a barrier against environmental changes. While both systems contribute to health, they are not primarily responsible for **homeostasis**.
· **(b) Digestive System and Respiratory System**: The digestive system processes food, and the respiratory system facilitates the exchange of gases. These systems help in maintaining energy balance and oxygen levels but are not primarily responsible for homeostasis.
· **(c) Integumentary System and Endocrine System**: The integumentary system plays a role in temperature regulation and protection, and the endocrine system regulates metabolism and growth. However, homeostasis is better maintained by the **nervous system** along with the **endocrine system**, rather than by the integumentary system alone.

Q.108 **When an individual attributes their own unacceptable thoughts to others, which defense mechanism are they using?**

A. Displacement
B. Projection
C. Reaction Formation
D. Regression

Answer: B

Sol:

Projection is a defense mechanism in which an individual misattributes their own undesired thoughts, motives, or emotions to another person. This reduces internal guilt and conflict by externalizing personal feelings.
Explanation of each option:
· (a) Displacement – Redirects feelings from the real source of distress to a safer or more acceptable target (e.g., yelling at a friend after being scolded at work).

· (b) Projection – Correct. Attributes personal unacceptable emotions (e.g., anger, jealousy) to someone else to avoid self-blame.
· (c) Reaction Formation – Hides real emotions by behaving in an opposite way (e.g., showing excessive kindness to someone you dislike).
· (d) Regression – Reverts to childlike behavior (crying, tantrums) to cope with stress or emotional difficulty.

Q.109 **The congenital heart disease in which radiographic findings depict a boot-shaped heart is called:**

A. Tetralogy of Fallot
B. Patent Ductus Arteriosus
C. Coarctation of Aorta
D. Atrial Septal Defect

Answer: A

Sol: Ans. (a) Tetralogy of Fallot
Sol. Tetralogy of Fallot (TOF) is a cyanotic congenital heart defect characterized by four anomalies: pulmonary stenosis, right ventricular hypertrophy, ventricular septal defect (VSD), and overriding aorta. In chest X-rays, the boot-shaped heart appearance results from right ventricular hypertrophy and upward displacement of the apex.
Explanation of each option:
· (a) Tetralogy of Fallot – Correct answer. Causes cyanosis, clubbing, and a boot-shaped heart on X-ray.
· (b) Patent Ductus Arteriosus – Incorrect. Causes a continuous "machine-like" murmur, but does not result in a boot-shaped heart.
· (c) Coarctation of Aorta – Incorrect. Shows rib notching and a "figure-3 sign" on imaging, not a boot-shaped heart.
· (d) Atrial Septal Defect – Incorrect. Presents with right atrial enlargement and increased pulmonary blood flow, but no boot-shaped heart.

Q.110 **Which type of delusional disorder is commonly found in paranoid schizophrenia?**

A. Delusion of grandeur
B. Delusion of persecution
C. Delusion of guilt
D. Nihilistic delusion

Answer: B

Sol:
Ans. (b) Delusion of persecution
Sol. The delusion of persecution is a common feature of paranoid schizophrenia, where the individual believes that others are plotting against them, trying to harm them, or are spying on them. It is a central symptom of paranoid schizophrenia.
Explanation of each option:
· **(a) Delusion of grandeur – Incorrect.** While delusions of grandeur (belief that one has exceptional abilities or is famous) can occur in schizophrenia, they are more commonly seen in manic or bipolar disorders.
· **(b) Delusion of persecution – Correct answer.** This is the most common delusion in paranoid schizophrenia, where the person believes they are being targeted by others.
· **(c) Delusion of guilt – Incorrect.** This delusion involves feelings of personal responsibility for something catastrophic or harmful, but is less common in paranoid schizophrenia.
· **(d) Nihilistic delusion – Incorrect.** This type of delusion involves beliefs that oneself, others, or the world does not exist, which is rare in paranoid schizophrenia.

Q.111 **Semen contains what?**

A. Prostatic fluid
B. Sperms
C. Seminal fluid
D. All of them

Answer: D

Sol:
Ans: (d) All of them
Explanation: Semen is a complex fluid that plays a key role in reproduction. It is composed of:
· **Prostatic fluid** – Secreted by the prostate gland, helps in nourishing and protecting sperm.
· **Sperms** – The male reproductive cells produced in the testes.
· **Seminal fluid** – Secreted by the seminal vesicles, it provides a medium to transport sperm and contains nutrients like fructose.

Q.112 **A nurse is providing discharge instructions to a patient who has been prescribed warfarin. Which of the following instructions should the nurse include?**

A. "Avoid foods rich in vitamin K, such as spinach and broccoli."
B. "You can stop the medication once your INR reaches 2.5."
C. "Take the medication at bedtime every day."
D. "Take an extra dose if you miss a dose."

Answer: A

Sol:

· **"Avoid foods rich in vitamin K, such as spinach and broccoli."**: Warfarin is an **anticoagulant** that works by inhibiting the action of vitamin K, which is necessary for blood clotting. Consuming foods rich in **vitamin K**, such as spinach, kale, broccoli, and other leafy greens, can interfere with the effectiveness of warfarin by counteracting its anticoagulant effects. Therefore, patients on warfarin should maintain a consistent intake of vitamin K, but **avoiding large fluctuations** in vitamin K intake is recommended. This helps to ensure that warfarin continues to work effectively. Hence, this statement is accurate.
· **"You can stop the medication once your INR reaches 2.5."**: Warfarin therapy is typically **long-term** for patients with conditions such as atrial fibrillation, deep vein thrombosis (DVT), or pulmonary embolism (PE). The goal of warfarin therapy is to maintain an **INR** (International Normalized Ratio) within a therapeutic range, which is often between **2.0 and 3.0**, depending on the patient's condition. Patients should **never stop taking warfarin** without consulting their healthcare provider, as stopping it prematurely can increase the risk of clot formation.
· **"Take the medication at bedtime every day."**: This statement is **not necessary** or **specific to warfarin**. While it's important to take warfarin at the same time every day to maintain consistent blood levels, the medication doesn't need to be taken specifically at **bedtime**. Patients can take it at any consistent time of day that suits their schedule, as long as it is taken consistently.
· **"Take an extra dose if you miss a dose."**: If a patient misses a dose of warfarin, they should **not** take an extra dose to compensate. Taking extra doses could increase the risk of **bleeding**. Instead, the patient should follow the instructions given by their healthcare provider, typically taking the missed dose as soon as they remember, or skipping it if it is close to the time of the next dose, without doubling up.

Q.113 **Which among the following is NOT a major manifestation of rheumatic fever?**

A. Carditis
B. Chorea
C. Arthralgia
D. Subcutaneous nodules

Answer: C

Sol:

Ans. (c) Arthralgia
Sol. The major manifestations of rheumatic fever are defined by the Jones criteria, which include:
1. Carditis
2. Polyarthritis
3. Chorea (involuntary movements)
4. Subcutaneous nodules
5. Erythema marginatum
While arthralgia (joint pain) is a common symptom, it is classified as a minor criterion, not a major manifestation.
Explanation of each option:
· (a) Carditis – Incorrect. A major manifestation causing inflammation of the heart.
· (b) Chorea – Incorrect. A major manifestation characterized by involuntary jerky movements.
· (c) Arthralgia – Correct answer. It is a minor criterion, not a major manifestation.
· (d) Subcutaneous nodules – Incorrect. A major manifestation, presenting as painless nodules over bony prominences.

Q.114 **A toddler screams and cries noisily after parental visits, disturbing other children. When the crying is particularly loud and prolonged, the nurse places the crib in a separate room and closes the door. The toddler is left there until the crying ceases, a matter of 30 to 45 minutes. Legally, how should this behavior be interpreted?**

A. Limits had to be set to control the child's crying.
B. The child had a right to remain in the room with the other children.
C. The child had to be removed because the other children needed to be considered.
D. Segregation of the child for more than half an hour was too long a period of time.

Answer: D

Sol:

Answer: (d) Segregation of the child for more than half an hour was too long a period of time.
Explanation:
· (a) Limits had to be set to control the child's crying. While it's important to manage challenging behaviors, isolating a child for 30 to 45 minutes is

not an appropriate or legally acceptable method of setting limits. Isolation should not be used as a disciplinary measure, particularly for such a prolonged period.
· (b) The child had a right to remain in the room with the other children. This option is somewhat correct in terms of considering the child's right to be included, but it doesn't directly address the legal issue of isolation duration.
· (c) The child had to be removed because the other children needed to be considered. Managing the environment for all children is important, but the method of isolation used here is excessive and not justifiable in a legal context. This answer does not address the legality of the duration or method of isolation.
· (d) Segregation of the child for more than half an hour was too long a period of time. Legally, isolating a child for an extended period, especially as a reaction to behavior such as crying, can be considered inappropriate and potentially harmful. A child should not be isolated for such long durations, and this practice can be viewed as a form of neglect or punitive action, which is not acceptable.
In summary, (d) is the most appropriate answer as it acknowledges that the duration of isolation was excessive and potentially harmful, aligning with legal and ethical standards for child care.

Q.115 **How many drops per minute would you administer when the doctor's order states that the client should receive 1000 cc of fluid for 8 hours and the IV set delivers 20 gtts per cc?**

A. 48 gtts
B. 51 gtts
C. 42 gtts
D. 31 gtts

Answer: C

Sol: **Ans. (c) 42 gtts**
Sol. Formula: **Drops per minute (gtts/min) = (Total volume × Drop factor) / Total time in minutes** Given:
· Volume = 1000 cc
· Drop factor = 20 gtts/cc
· Time = 8 hours = 480 minutes
gtts/min = (1000 × 20) / 480 = 20000 / 480 ≈ 41.67 ≈ 42 gtts/min
Explanation of each option:
· **(a) 48 gtts** – Slightly high, would cause faster infusion.
· **(b) 51 gtts** – Too high, risk of fluid overload.
· **(c) 42 gtts** – **Correct.** Matches calculated value.
· **(d) 31 gtts** – Too slow, patient won't receive prescribed volume on time.

Q.116 **A nurse is performing strict hand hygiene and using sterile techniques while providing postoperative care. According to Maslow's hierarchy of needs, which category is being addressed?**

A. Physiological Needs
B. Safety and Security
C. Love and Belonging
D. Self-Actualization

Answer: B

Sol:
✅ Correct Answer: (b) Safety and Security
Explanation:
· Maslow's hierarchy of needs consists of five levels:
1. Physiological Needs – Food, water, air, elimination, and basic survival.
2. Safety and Security – Protection from harm, infection control, and health promotion.
3. Love and Belonging – Social relationships and emotional well-being.
4. Esteem Needs – Self-confidence, achievement, and respect.
5. Self-Actualization – Personal growth and fulfillment.
· The nurse's use of hand hygiene and sterile techniques ensures infection prevention, which falls under safety and security.
Other options are incorrect because:
· (a) Physiological needs involve survival essentials like oxygen and hydration, not infection control.
· (c) Love and belonging relate to social connections, not physical protection.
· (d) Self-actualization is about personal growth, which does not apply to infection prevention.

Q.117 **____ is also known as Ascorbic acid.**

A. Vitamin E
B. Vitamin C
C. Vitamin D

D. Vitamin A

Answer: B

Sol:

Ans. (b)
Sol. Ascorbic acid is the chemical name of Vitamin C, which plays a vital role in collagen synthesis and immunity.
Explanation of each option:
· **(a) Vitamin E** – Known for its antioxidant properties.
· **(b) Vitamin C** – **Correct answer.** Another name is Ascorbic acid.
· **(c) Vitamin D** – Known as cholecalciferol or ergocalciferol.
· **(d) Vitamin A** – Referred to as retinol.

Q.118 **Which finding is noted on assessing a child with scabies?**

A. Gray threadlike lines
B. Discrete red macules
C. Pink-red macules
D. Purple-colored lines

Answer: A

Sol:

Ans. (a) Gray threadlike lines
Sol. Scabies is a contagious skin infestation caused by Sarcoptes scabiei, a microscopic mite that burrows into the skin. The characteristic finding is gray, threadlike burrows, which indicate the movement of the mite under the skin, often found in intertriginous areas like the fingers, wrists, and axillae.
Explanation of each option:
· (a) Gray threadlike lines – Correct answer. Represents scabies burrows, a diagnostic feature.
· (b) Discrete red macules – Incorrect. Macules are flat red spots, common in viral exanthems but not specific to scabies.
· (c) Pink-red macules – Incorrect. Non-specific for scabies; more common in allergic rashes.
· (d) Purple-colored lines – Incorrect. Not a feature of scabies; more indicative of vascular conditions or lichen planus.

Q.119 **Which class of medication is most commonly used to treat depression?**

A. Antipsychotics.
B. Antidepressants.
C. Mood stabilizers.
D. Stimulants.

Answer: B

Sol: Sol. Antidepressants are the most commonly used medications to treat depression. They work by regulating neurotransmitters such as serotonin, norepinephrine, and dopamine to improve mood and emotional stability. Common classes include selective serotonin reuptake inhibitors (SSRIs) and serotonin-norepinephrine reuptake inhibitors (SNRIs).
Explanation of Each Option:
· (a) Antipsychotics: These are primarily used to treat schizophrenia, bipolar disorder, and psychotic disorders. While some atypical antipsychotics may be used as adjuncts in depression, they are not the first-line treatment.
· (b) Antidepressants: This is the correct answer, as these medications, including SSRIs, SNRIs, and tricyclic antidepressants (TCAs), are specifically designed to treat depressive disorders.
· (c) Mood stabilizers: These are primarily used for bipolar disorder to manage mood swings, rather than for treating unipolar depression alone. Examples include lithium and valproate.
· (d) Stimulants: These are used for conditions like attention-deficit hyperactivity disorder (ADHD) and narcolepsy. They are not commonly prescribed for depression unless there is coexisting ADHD.

Q.120 **According to WHO, which of the following is most effective in reducing unsafe abortions among adolescents?**

A. Delaying menarche
B. Promoting abstinence only
C. Access to comprehensive sex education and contraception
D. Encouraging early marriage

Answer: C

Sol:

WHO emphasizes that comprehensive sexuality education and access to contraception are the most effective strategies to reduce unintended pregnancies and unsafe abortions among adolescents. Empowering them with accurate knowledge and confidential reproductive health services helps in making informed decisions.

Explanation of each option:

· (a) Delaying menarche – Not scientifically or ethically practical; menarche is a natural biological process.

· (b) Promoting abstinence only – Has limited effectiveness when not combined with education and contraceptive access.

· (c) Access to comprehensive sex education and contraception – Correct. Proven globally to reduce teenage pregnancies and abortion rates.

· (d) Encouraging early marriage – Increases risk of early pregnancy and health complications; discouraged by both WHO and Indian law.

Q.121 **How much amount of blood transfers from the placenta to the baby after delivery when cord clamping is delayed till the cessation of cord pulsations?**

A. 10 – 30 ml
B. 40 – 60 ml
C. 80 – 100 ml
D. 120 – 150 ml

Answer: C

Sol:

Ans. (c) 80 – 100 ml

Sol. Delayed cord clamping (DCC) allows approximately 80–100 ml of blood to transfer from the placenta to the newborn, improving iron stores, oxygen delivery, and reducing the risk of anemia in infancy. This practice is recommended to enhance neonatal outcomes.

Explanation of each option:

· (a) 10 – 30 ml – Incorrect. Insufficient transfer occurs with early clamping.

· (b) 40 – 60 ml – Incorrect. The actual volume transferred is usually higher.

· (c) 80 – 100 ml – Correct answer. The estimated amount of placental blood transfusion with delayed cord clamping.

· (d) 120 – 150 ml – Incorrect. Excessive estimation; actual transfer is closer to 80–100 ml.

Q.122 **How many calories does 1 gm of fat give?**

A. 8
B. 9
C. 4
D. 6

Answer: B

Sol: Ans (b)

Sol. 8 calories: This is not the correct value for the energy provided by 1 gram of fat.

9 calories: 1 gram of fat provides approximately 9 calories of energy, making it the most energy-dense macronutrient.

4 calories: This is the amount of energy provided by 1 gram of carbohydrates or protein, not fat.

6 calories: This is not the correct value for fat.

Q.123 **Klinefelter syndrome most commonly presents with which karyotype?**

A. 47, XXY
B. 45, X
C. 47, XXX
D. 46, XY

Answer: A

Sol:

Klinefelter syndrome occurs in males with an extra X chromosome (47, XXY). Affected individuals are typically tall with long limbs, and show signs of gynecomastia, small testes, low testosterone levels, and infertility. Many are undiagnosed until adulthood when infertility is investigated.

Explanation of each option:

· (a) 47, XXY – Correct. Most common karyotype in Klinefelter syndrome, responsible for hormonal imbalances and infertility in males.

· (b) 45, X – Associated with Turner syndrome in females, not with Klinefelter. It results in short stature and ovarian failure.

· (c) 47, XXX – Triple X syndrome in females; usually asymptomatic or presents with tall stature and learning difficulties.

· (d) 46, XY – Normal male karyotype, not associated with any syndrome.

Q.124 **Universal safety precautions are a set of guidelines to protect the _____**

A. Health care workers
B. Patient
C. Patient relatives
D. General public

Answer: A

Sol: Ans (a)
Sol. Health care workers: Universal safety precautions are specifically designed to protect healthcare workers from exposure to infectious agents, such as bloodborne pathogens, during patient care or handling of bodily fluids. These precautions include using gloves, masks, gowns, and proper disposal methods for sharps and waste.
Patient: Although patients benefit indirectly from these precautions by reducing the risk of cross-contamination and infection, the primary goal is to protect healthcare workers.
Patient relatives: These guidelines are not targeted at patient relatives, as they are not usually in direct contact with infectious materials in the same way healthcare workers are.
General public: The general public is not the direct focus of universal safety precautions, which are tailored for those providing or assisting in medical care.

Q.125 **According to Erikson's stages of psychosocial development, what is the primary conflict during adolescence?**

A. Trust vs. Mistrust
B. Autonomy vs. Shame and Doubt
C. Identity vs. Role Confusion
D. Integrity vs. Despair

Answer: C

Sol: S
c) Identity vs. Role Confusion.
During adolescence, individuals grapple with questions about who they are, their values, and their place in the world. This internal struggle is central to Erikson's Identity vs. Role Confusion stage.

Q.126 **Which of the following occurs when small defects in the muscle of the wall of the large intestine or colon allow small pockets or pouches to form?**

A. Hepatitis C
B. Diverticulosis
C. Peptic ulcer disease
D. Gastroesophageal reflux disease

Answer: B

Sol:
Ans: (b) **Diverticulosis Sol. Diverticulosis** is a condition in which **small pouches or pockets** (called **diverticula**) form in the wall of the **large intestine** or colon. These pockets occur when weak spots in the muscle layer of the colon allow small bulges to form. Diverticulosis itself often does not cause symptoms but can lead to more serious conditions like **diverticulitis** if the pouches become inflamed or infected.
Explanation of each option:
· **(a) Hepatitis C**: Hepatitis C is a viral infection that affects the **liver**, leading to inflammation and damage to liver cells. It is not related to the formation of pouches in the colon.
· **(c) Peptic ulcer disease**: Peptic ulcers are open sores that develop on the inner lining of the **stomach** or the **duodenum** (part of the small intestine). They are typically caused by the bacteria **Helicobacter pylori** or the long-term use of nonsteroidal anti-inflammatory drugs (NSAIDs), not by defects in the colon.
· **(d) Gastroesophageal reflux disease (GERD)**: GERD is a condition where stomach acid frequently flows back into the **esophagus**, causing irritation. It does not involve the formation of pouches in the colon.

Q.127 **Damage to which part of the brain is most likely to cause formed visual hallucinations (seeing complex, detailed hallucinations)?**

A. Parietal lobe
B. Temporal lobe
C. Occipital lobe
D. Frontal lobe

Answer: C

Sol: Here's why:

- **Occipital lobe:** This lobe located at the back of the head is the primary visual processing center in the brain. It receives and interprets visual information from the eyes. Damage to this area can disrupt this processing and lead to formed visual hallucinations, where the person sees detailed and complex images that aren't real.
- **Parietal lobe:** This lobe is involved in processing spatial awareness, navigation, and some aspects of visual perception. While damage here can cause visual problems, it's less likely to cause formed visual hallucinations.
- **Temporal lobe:** This lobe plays a role in processing auditory information, memory, and some aspects of vision. Damage here may cause visual distortions or illusions, but not necessarily formed hallucinations.
- **Frontal lobe:** This lobe is involved in higher cognitive functions like planning, decision-making, and personality. Damage here wouldn't directly cause visual hallucinations.

Therefore, the occipital lobe is the key region for visual processing, and damage to this area is the most likely culprit for formed visual hallucinations.

Q.128 **A patient with a lower limb prosthetic device reports increased skin breakdown and blistering after a recent increase in physical activity. Which of the following is the most likely contributing factor?**

A. Improper fitting of the prosthetic socket
B. Lack of proper skin care and hygiene
C. Insufficient padding or cushioning in the prosthetic foot
D. Decreased muscle strength and endurance in the residual limb

Answer: A

Sol: **a) Improper fitting of the prosthetic socket** is the most likely contributing factor to increased skin breakdown and blistering after a recent increase in physical activity for a patient with a lower limb prosthetic device.

Here's a brief explanation:

- Increased physical activity can lead to more friction and pressure on the residual limb, which can exacerbate problems caused by a poorly fitting socket.

- A well-fitted socket distributes weight evenly and reduces the risk of skin breakdown.

While the other options (lack of proper skin care, insufficient padding, and decreased muscle strength) can also contribute to skin issues, an improperly fitting socket is the most direct cause, especially when there's an increase in physical activity.

Q.129 **Which of the following noted on the assessment of a pregnant mother receiving magnesium sulfate for the management of preeclampsia determines that the client is experiencing toxicity?**

A. Proteinuria of 3+
B. Respirations of 10 breaths/min
C. Serum magnesium level of 6 mEq/L
D. Presence of deep tendon reflexes

Answer: B

Sol:

Ans. (b) Respirations of 10 breaths/min
Sol. Magnesium sulfate toxicity can lead to respiratory depression, with a respiratory rate below 12 breaths per minute being a critical warning sign. Severe toxicity can also cause hypotension, loss of deep tendon reflexes, and cardiac arrest.
Explanation of each option:
· (a) Proteinuria of 3+ – Incorrect. Proteinuria is a sign of preeclampsia, not magnesium toxicity.
· (b) Respirations of 10 breaths/min – Correct answer. Respiratory depression is a key indicator of magnesium sulfate toxicity.
· (c) Serum magnesium level of 6 mEq/L – Incorrect. Magnesium levels above 8-10 mEq/L are typically associated with toxicity.
· (d) Presence of deep tendon reflexes – Incorrect. Loss of deep tendon reflexes (not presence) is an early sign of magnesium toxicity.

Q.130 **Which of the following is a primary action of benzodiazepines in treating anxiety disorders?**

A. Increase serotonin levels.
B. Increase dopamine release.
C. Enhance GABA activity.
D. Block norepinephrine receptors.

Answer: C

Sol: Sol. Benzodiazepines enhance GABA (gamma-aminobutyric acid) activity, which is the primary inhibitory neurotransmitter in the central nervous system. By increasing GABA's effects, benzodiazepines reduce neuronal excitability, producing a calming effect that helps alleviate anxiety symptoms.
Explanation of Each Option:
· (a) Increase serotonin levels: This is the primary action of selective serotonin reuptake inhibitors (SSRIs), which are commonly used to treat anxiety disorders, but not the mechanism of benzodiazepines.
· (b) Increase dopamine release: Dopamine release is associated with reward and pleasure mechanisms, but benzodiazepines primarily act through GABAergic pathways rather than dopamine.
· (c) Enhance GABA activity: This is the correct answer. Benzodiazepines, such as diazepam and lorazepam, enhance the inhibitory effects of GABA, leading to relaxation and reduced anxiety.
· (d) Block norepinephrine receptors: This is the action of beta-blockers, which can be used for anxiety-related physical symptoms like rapid heart rate, but it is not the primary mechanism of benzodiazepines.

Q.131 **The nurse is giving instructions to a patient receiving phenytoin therapy. The nurse concludes the patient has a sufficient understanding when the patient states:**

A. "Wearing a medical alert tag is not required."
B. "Alcohol is permitted while taking this medication."
C. "I can take the medicine with milk."
D. "Have the serum phenytoin level checked before giving the medication."

Answer: D

Sol:

Ans. (d)
"Wearing a medical alert tag is not required.": This statement is incorrect. Patients on phenytoin (an anticonvulsant) should wear a medical alert tag to inform healthcare providers about their medication in case of an emergency.
"Alcohol is permitted while taking this medication.": This statement is incorrect. Alcohol interacts with phenytoin, potentially leading to toxicity or reduced effectiveness of the medication. Alcohol should be avoided.
"I can take the medicine with milk.": This statement is incorrect. Milk and antacids can interfere with the absorption of phenytoin, reducing its effectiveness. It's better to take phenytoin with water.
"Have the serum phenytoin level checked before giving the medication.": This statement is correct. Serum phenytoin levels must be monitored regularly to ensure they are within the therapeutic range (10–20 mcg/mL) and to avoid toxicity or subtherapeutic levels.

Q.132 **A patient diagnosed with Hepatitis A inquires, "How could I have acquired this disease?" What would be the most appropriate response from the nurse?**

A. It could be from sharing needles or using intravenous drugs.
B. It might be due to receiving a contaminated blood transfusion.
C. It may be a result of unprotected sexual contact.
D. It is likely you consumed food or water that was contaminated.

Answer: D

Sol:

Answer: (d) It is likely you consumed food or water that was contaminated. Sol: Hepatitis A is primarily transmitted through ingestion of contaminated food or water. It is not spread by blood transfusions or sexual contact like Hepatitis B or C. Explaining the foodborne nature of Hepatitis A helps the patient understand the most common transmission route.
Concept: Hepatitis A is an inflammation of the liver caused by the Hepatitis A virus (HAV). It is commonly transmitted through the consumption of contaminated food or water or through close contact with an infected individual. The disease is most prevalent in areas with poor sanitation and limited access to clean water. It does not spread through blood transfusions or sexual contact like other types of hepatitis.
Explanation: The nurse should inform the patient that Hepatitis A is primarily transmitted through the fecal-oral route, meaning that the virus enters the body when a person ingests food or water contaminated with the feces of an infected individual. Some of the most common risk factors for contracting Hepatitis A include:
· Consuming food or water prepared under poor sanitary conditions
· Close contact with an infected person
· Traveling to areas with high rates of Hepatitis A without vaccination
· Living in or visiting areas with inadequate water supply or poor hygiene practices
Explanation of Other Options:
1. Sharing needles or using intravenous drugs (Option a): This is a common mode of transmission for Hepatitis B and C, not Hepatitis A.
2. Receiving a contaminated blood transfusion (Option b): This is also associated with Hepatitis B and C but not Hepatitis A, which spreads through the fecal-oral route.
3. Unprotected sexual contact (Option c): While sexual contact can spread Hepatitis A, it is not a common mode of transmission. It is more likely transmitted through poor hygiene and contaminated food or water.
Summary: The most appropriate response from the nurse is to inform the patient that Hepatitis A is likely contracted through the ingestion of contaminated food or water. This helps the patient understand the most common transmission route and possible preventive measures.

Q.133 **Delusion is a disorder of**

A. Thinking
B. Memory
C. Perception
D. Intellect

Answer: A

Sol:

- **Thinking:** Delusions are fixed false beliefs that are not based on reality. They are a primary symptom of delusional disorder, a mental health condition.

- **Memory:** While memory problems can occur in some mental health conditions, delusions are not directly related to memory.
- **Perception:** Perception refers to how we interpret sensory information. While delusions can sometimes involve misinterpretations, they are more about firmly held beliefs that are not based on reality.
- **Intellect:** Intellect is a broader term encompassing cognitive abilities like reasoning and problem-solving. Delusions can impair these abilities, but they are not a direct measure of intellect.

Therefore, delusions are primarily considered a disorder of thinking because they involve distorted thought patterns and the inability to distinguish between reality and false beliefs.

Q.134 **A six-month-old child received a DPT immunization at the well-baby clinic. The mother returns home and calls the clinic to report that the infant has developed swelling and redness at the injection site. What should the nurse advise the mother to do?**

A. Apply a warm pack to the injection site
B. Bring the infant back to the clinic
C. Apply an ice pack to the injection site
D. Monitor the infant for fever

Answer: C

Sol: S

(c) Apply an ice pack to the injection site
Explanation:
Swelling and redness at the injection site are common side effects of the DPT vaccine.

Applying an ice pack to the area can help reduce swelling and discomfort.
Monitoring the infant for fever and other signs of a more severe reaction is also important, but the immediate action to manage the local reaction is to apply a cold compress.
Bringing the infant back to the clinic is not necessary unless the child develops severe symptoms such as high fever, difficulty breathing, or persistent crying.
It's essential to reassure the mother that these symptoms are normal and will usually subside within a few days.

Q.135 **If a nurse caring for a Sannipat patient recognizes that the patient has poor willpower, loss of cognition, memory loss, reduced or limited insight, lack of personal control, hallucinations, and unstable mood, what should be the expected result immediately after intervention?**

A. The patient will be free from injury and develop trust in the caregiver.
B. The patient will be able to follow the daily routine.
C. The patient will achieve the ideal level of functioning.
D. The patient will experience fewer delusions and hallucinations.

Answer: A

Sol:

Answer: (a) The patient will be free from injury and develop trust in the caregiver.
Explanation:
A patient with Sannipat (a term used in Ayurveda and Indian medicine to indicate a severe and imbalanced state of mind or health) presenting with hallucinations, memory loss, cognitive decline, and unstable mood is at a high risk of injury due to impaired judgment and perception. The first priority in nursing intervention is to ensure patient safety and build trust so that the patient does not harm themselves or others.
Other Options Explained:
· (b) The patient will be able to follow the daily routine.
· Following a routine requires improved cognition, which is a long-term goal, not an immediate outcome.
· (c) The patient will achieve the ideal level of functioning.
· Achieving an ideal level of functioning is unrealistic in a short period and depends on the severity of the condition.
· (d) The patient will experience fewer delusions and hallucinations.
· Reducing hallucinations requires ongoing medical and psychological intervention, and results are usually gradual.
Immediate Expected Outcome:
The primary nursing goal is to ensure that the patient remains injury-free and develops trust in the caregiver, which will allow further interventions to be effective.
Thus, the correct answer is (a) The patient will be free from injury and develop trust in the caregiver.

Q.136 **The largest artery in the human body is**

A. Aorta
B. Carotid Artery

C. Subclavian Artery
D. Pulmonary Artery

Answer: A

Sol: **Aorta**

1. **Aorta:** This is the main artery that carries oxygen-rich blood away from the left ventricle of the heart to the rest of the body. It's a large, muscular vessel with a wide diameter to accommodate the high volume of blood flow.
2. **Carotid Artery:** These are two arteries on either side of the neck that supply blood to the head and brain. They are important arteries, but not the largest in the body.
3. **Subclavian Artery:** These are arteries located near the collarbone that supply blood to the arms, shoulders, and head. Similar to the carotids, they are significant arteries but not the biggest.
4. **Pulmonary Artery:** This artery carries oxygen-depleted blood from the right ventricle of the heart to the lungs for gas exchange. It's a large vessel, but the aorta is even larger due to carrying oxygenated blood for the entire body.

Q.137 **During muscle relaxation, the _____ covers the active site on actin.**

A. Myosin
B. Titin
C. Troponin
D. Tropomyosin

Answer: D

Sol:

Ans: (d) **Tropomyosin Sol.** During muscle relaxation, **tropomyosin** covers the **active sites** on the **actin** filaments, preventing the binding of myosin heads, and thus inhibiting contraction. Tropomyosin is a regulatory protein that, along with **troponin**, controls the interaction between actin and myosin, which is crucial for muscle contraction.

Explanation of each option:

· **(a) Myosin**: Myosin is the **thick filament** of the muscle, which interacts with actin during contraction. However, it does not cover the active site on actin during relaxation. Instead, it binds to the active site during contraction to produce movement.

· **(b) Titin**: Titin is a **structural protein** that helps maintain the alignment of the thick and thin filaments and provides elasticity to the muscle. It does not cover the active site on actin; rather, it stabilizes the sarcomere.

· **(c) Troponin**: Troponin is a complex of proteins (troponin C, I, and T) that work with tropomyosin to regulate muscle contraction. While troponin is involved in the movement of tropomyosin in response to calcium ions, it itself does not cover the active site on actin. Troponin binds to calcium ions and causes tropomyosin to shift, exposing the active sites on actin for myosin binding during contraction.

Q.138 **A nurse is caring for a patient with vitamin B12 deficiency anemia. Which of the following signs would the nurse most likely observe?**

A. Jaundice
B. Glossitis and pallor
C. Petechiae
D. Tachycardia and hypertension

Answer: B

Sol: **Ans. (b) Glossitis and pallor** Vitamin B12 deficiency anemia commonly presents with glossitis (inflamed tongue) and pallor (pale skin). Jaundice is more associated with hemolysis, petechiae with bleeding disorders, and tachycardia/hypertension are not specific to B12 deficiency.

Q.139 **After surgery, a client develops deep vein thrombosis and a pulmonary embolus. Heparin via a continuous drip at 1200 units/hr is prescribed. Later, vancomycin (Vancocin) 500 mg intravenously every 12 hours is also prescribed. The client has one IV site: a peripheral line in the left forearm. What action should the nurse take?**

A. Stop the heparin, flush the line, and administer the vancomycin
B. Use a piggyback setup to administer the vancomycin into the heparin
C. Start another IV line for the vancomycin and continue the heparin as prescribed

D. Hold the vancomycin and inform the healthcare provider that the drug is incompatible with heparin.

Answer: C

Sol:

Answer: (c) Start another IV line for the vancomycin and continue the heparin as prescribed
Rationale: Heparin and vancomycin are incompatible in the same intravenous line. Therefore, they must be administered separately to prevent potential adverse reactions. Starting another IV line for vancomycin allows the heparin to continue infusing without interruption. Simply flushing the line or using a piggyback setup is not adequate, as it may not fully clear remnants of heparin from the line. It is the nurse's responsibility to ensure safe administration of both medications.

Q.140 **A client with a head injury is receiving dexamethasone (Decadron). The healthcare provider plans to gradually reduce the dosage and continue with a lower maintenance dose. What should the nurse explain to the client about the effect of this gradual dosage reduction?**

A. Builds glycogen stores in the muscles
B. Produces antibodies by the immune system
C. Allows increased intracranial pressure to return to normal
D. Promotes the return of cortisone production by the adrenal glands

Answer: D

Sol:

Answer: (d) Promotes the return of cortisone production by the adrenal glands
Rationale: Hormone therapy such as dexamethasone (Decadron) must be withdrawn slowly to allow the adrenal glands to adjust and resume their natural hormone production. Rapid withdrawal can lead to adrenal insufficiency, as the body needs time to readjust its own cortisone production. The other options do not relate to the reason for gradual withdrawal of dexamethasone.

Q.141 **The client is no longer interested in going out and meeting friends. This is an example of which behavior?**

A. Avolition
B. Affective flattening
C. Alogia
D. Perseveration

Answer: A

Sol:

Ans. (a) Avolition
Sol. Avolition refers to a lack of motivation or interest in goal-directed activities. This behavior is often seen in individuals with certain mental health disorders such as schizophrenia. It involves the inability to initiate and sustain purposeful activities, like no longer wanting to go out and meet friends.
Explanation of each option:
· **(a) Avolition** – **Correct answer.** It describes the lack of interest in activities that were once enjoyable or meaningful, such as going out or meeting friends.
· **(b) Affective flattening** – **Incorrect.** Affective flattening refers to a reduction in emotional expression, such as facial expression or vocal tone, rather than a lack of interest in activities.
· **(c) Alogia** – **Incorrect.** Alogia refers to poverty of speech or the limited amount of speech, not a lack of interest in activities.
· **(d) Perseveration** – **Incorrect.** Perseveration involves the repetition of words or behaviors, rather than a lack of motivation.

Q.142 **Which abbreviation indicates that a medication should be administered within 5 minutes of receiving the written order?**

A. ASAP

B. PRN

C. SLAT

D. STAT

Answer: D

Sol:

- **STAT** means to administer the medication immediately.

other options:

- **ASAP:** As soon as possible, but not as urgent as STAT.
- **PRN:** As needed, medication is given when required.
- **SLAT:** There is no standard medical abbreviation for SLAT.

Other Abbreviations

1. **Routine orders**: Orders that are not written as STAT, ASAP, NOW, or PRN, typically carried out within 2 hours of the physician's order.
2. **Standing order**: Orders written in advance for specific circumstances, such as postoperative PRN prescriptions for all patients undergoing a specific surgical procedure. Some facilities restrict standing orders due to legal concerns about treating all patients under a single protocol.
3. **ac**: Before meals.
4. **AM**: In the morning.
5. **bid**: Twice per day.
6. **Cap**: Refers to a capsule form of medication.

Q.143 **In which type of labor, the combined duration of the first and second stages is less than two hours?**

A. Normal labor
B. Prolonged labor
C. Precipitate labor
D. Trial labor

Answer: C

Sol:

Ans. (c) Sol. Precipitate labor refers to a rapid labor process where the combined duration of the first and second stages is less than two hours. It is characterized by a very fast delivery, often leading to complications for both the mother and the baby due to the rapid expulsion.
Explanation of each option:
· **(a) Normal labor** – Incorrect. Normal labor typically takes longer, with the first stage lasting 6–12 hours and the second stage about 1–2 hours.
· **(b) Prolonged labor** – Incorrect. Prolonged labor refers to labor that takes longer than usual, typically longer than 12–14 hours for the first stage and longer than 2 hours for the second stage.
· **(c) Precipitate labor** – Correct. This type of labor is extremely fast, with the total duration of the first and second stages being less than two hours.
· **(d) Trial labor** – Incorrect. Trial labor refers to a period of observation for vaginal delivery in cases of suspected cephalopelvic disproportion, but it is not associated with rapid labor duration.

Q.144 **A nurse uses abdominal-thoracic thrusts (Heimlich maneuver) when an older adult in a senior center chokes on a piece of meat. Which volume of air is the basis for the efficacy of the abdominal thrusts to expel a foreign object in the larynx?**

A. Tidal volume
B. Residual volume
C. Vital capacity
D. Inspiratory reserve volume

Answer: C

Sol:

Explanation: The efficacy of abdominal thrusts in the Heimlich maneuver relies on the **vital capacity**, which is the total amount of air that can be expelled from the lungs after taking the deepest breath. This volume helps generate the force necessary to expel the obstructing object.

Q.145 A nurse caring for a patient receiving oxytocin therapy suddenly is experiencing hypertonic contractions. Which of the following priority nursing actions should the nurse do?

A. Administer oxygen at 8 to 10 liters per minute
B. Stop the oxytocin infusion
C. Increase the flow rate of the intravenous additive solution
D. All of the above

Answer: B

Sol: Ans. (b)
Hypertonic (tachysystolic) uterine contractions during oxytocin therapy indicate **uterine overstimulation**, which can compromise **uteroplacental blood flow** and lead to **fetal distress**.

The **priority and first nursing action** is to **stop the oxytocin infusion immediately** to remove the cause of overstimulation.

- **Administering oxygen** and
- **Increasing IV fluids**

may be done **after stopping oxytocin**, but they are **not the first action**.

Q.146 **The spongy bones are called:**

A. Cancellous
B. Endosteum
C. Cortical
D. Osteons

Answer: A

Sol: **Cancellous**

(a) **Cancellous**: Spongy bone tissue is also known as cancellous bone. It has a porous, honeycomb-like structure with trabeculae (small, bony spicules) that create a network of spaces filled with bone marrow. This type of bone tissue is found at the ends of long bones, in the interior of flat bones (such as the sternum and pelvis), and in the epiphyses of long bones.

(b) **Endosteum**: This is not correct for spongy bone. Endosteum is a thin layer of connective tissue that lines the inner surface of bones. It contains osteoprogenitor cells, which are involved in bone growth and repair, as well as osteoclasts, which are responsible for bone resorption.

(c) **Cortical**: Cortical bone, also known as compact bone, forms the dense outer layer of bones. It is composed of tightly packed osteons (or Haversian systems) which are cylindrical structures containing concentric lamellae (layers of bone matrix) around central Haversian canals. Cortical bone provides strength and support to bones and protects the internal organs.

(d) **Osteons**: Osteons are the structural units of compact bone, not spongy bone. Each osteon consists of concentric lamellae of bone matrix surrounding a central Haversian canal, which contains blood vessels and nerves. Osteons are aligned parallel to the long axis of the bone and help in the transportation of nutrients and removal of waste from osteocytes (bone cells).

Therefore, the correct term for spongy bone is (a) Cancellous, as it accurately describes the porous and trabecular nature of this type of bone tissue.

Q.147 **Psychological assessments can be used to:**

A. Diagnose mental health conditions
B. Determine physical fitness levels
C. Eliminate all negative emotions
D. Control a person's behavior

Answer: A

Sol: Sol. Psychological assessments help diagnose conditions like anxiety, depression, and schizophrenia by evaluating cognitive, emotional, and behavioral functioning. These assessments aid in developing treatment plans for mental health issues.
Explanation of Each Option:
· (a) Diagnose mental health conditions: Correct answer. Psychological assessments help professionals identify mental disorders.
· (b) Determine physical fitness levels: Physical fitness tests assess physical health, not psychological well-being.
· (c) Eliminate all negative emotions: Psychological assessments do not eliminate emotions; they help understand and manage mental health conditions.
· (d) Control a person's behavior: Assessments aim to understand behavior, not control it.

Q.148 **The nurse is planning care for a patient with cirrhosis. For which condition would the nurse place the patient on bleeding precautions?**

A. Encephalopathy
B. Low vitamin K
C. Elevated liver enzymes
D. Hepatorenal syndrome

Answer: B

Sol:

Ans: (b) Low vitamin K
Explanation:
In cirrhosis, the liver's ability to produce bile is impaired, which affects the absorption of fat-soluble vitamins, including vitamin K. Vitamin K is crucial for the synthesis of clotting factors (specifically factors II, VII, IX, and X). When vitamin K levels are low, the production of these clotting factors is diminished, increasing the risk of bleeding. Therefore, patients with cirrhosis and low vitamin K levels require bleeding precautions.

Additional Information:

1. Cirrhosis and Vitamin K Deficiency:

· The liver is responsible for synthesizing clotting factors, and with cirrhosis, this function is impaired. Vitamin K, a fat-soluble vitamin, is essential for the synthesis of clotting factors. In cirrhosis, the liver's ability to absorb and store vitamin K is compromised, leading to a deficiency and increased risk of bleeding.

2. Hepatorenal Syndrome:

· A complication of cirrhosis where kidney function declines due to liver disease. While this is a serious condition, it does not directly cause a bleeding risk.

3. Elevated Liver Enzymes:

· Elevated liver enzymes (like AST, ALT) indicate liver damage, but they do not directly cause bleeding tendencies. Although in some conditions like HELLP syndrome (a severe form of preeclampsia), elevated liver enzymes can be associated with bleeding, this is not typically seen in cirrhosis.

4. Encephalopathy:

· Hepatic encephalopathy is a result of toxins accumulating in the brain due to the liver's inability to detoxify the blood. While encephalopathy is a significant complication of cirrhosis, it is not directly related to bleeding risk.

Thus, low vitamin K in cirrhosis patients is the primary condition that would warrant bleeding precautions due to its role in clotting factor synthesis.

Additional Information on Cirrhosis:

Cirrhosis is a progressive liver disease characterized by long-term damage and scarring of the liver tissue. Over time, the liver becomes unable to function properly, leading to various complications. Below is a detailed look at cirrhosis, its causes, effects, and associated medical considerations:

1. Causes of Cirrhosis:

· Chronic Alcohol Abuse: One of the most common causes of cirrhosis. Excessive alcohol intake damages liver cells and leads to inflammation and scarring.

· Chronic Hepatitis B or C: Viral infections that cause long-term inflammation of the liver, increasing the risk of cirrhosis.

· Non-Alcoholic Fatty Liver Disease (NAFLD): Fat accumulation in the liver not related to alcohol consumption, often associated with obesity, diabetes, and metabolic syndrome.

· Autoimmune Hepatitis: The body's immune system attacks the liver, leading to inflammation and cirrhosis.

· Genetic Diseases: Conditions like hemochromatosis (iron overload) and Wilson's disease (copper overload) can damage the liver and lead to cirrhosis.

· Chronic Biliary Diseases: Such as primary biliary cholangitis (PBC) or primary sclerosing cholangitis (PSC), where bile ducts are damaged and bile accumulates in the liver.

· Medications: Long-term use of certain drugs (e.g., methotrexate, isoniazid) can cause liver damage over time.

2. Pathophysiology of Cirrhosis:

· Fibrosis and Scarring: In cirrhosis, the liver undergoes fibrosis, which is the formation of scar tissue. This scarring replaces healthy liver tissue and disrupts the normal structure and function of the liver.

· Impaired Liver Function: Cirrhosis impairs the liver's ability to process nutrients, produce proteins (like albumin and clotting factors), detoxify the blood, and store glucose. This results in various complications, such as ascites, jaundice, and coagulopathy.

3. Symptoms of Cirrhosis:

Early cirrhosis may have no symptoms, or they may be subtle. As the disease progresses, symptoms become more noticeable:

· Fatigue and weakness

· Jaundice: Yellowing of the skin and eyes due to the buildup of bilirubin.

· Ascites: Accumulation of fluid in the abdomen, leading to swelling.

· Edema: Swelling in the legs and ankles.

· Itchy skin (pruritus): Due to the accumulation of bile salts in the skin.

· Easy bruising and bleeding: Due to impaired synthesis of clotting factors.

· Spider Angiomas: Small, red blood vessels visible on the skin.

· Confusion or difficulty concentrating: Caused by hepatic encephalopathy, a condition where toxins build up in the brain.

4. Complications of Cirrhosis:

· Portal Hypertension: Increased pressure in the veins that supply the liver, which can lead to esophageal varices (swollen blood vessels in the esophagus) that are at risk of bleeding.

· Hepatic Encephalopathy: A condition where toxins build up in the brain due to the liver's inability to detoxify the blood, leading to confusion, lethargy, and eventually coma.

· Liver Cancer (Hepatocellular Carcinoma): Cirrhosis increases the risk of developing liver cancer due to long-term liver damage.

· Coagulopathy: Due to impaired production of clotting factors in the liver, patients are at increased risk of bleeding and may require bleeding precautions.

· Hepatorenal Syndrome: A severe complication where kidney function deteriorates due to liver failure.

· Infections: Cirrhosis can impair immune function, making the liver more susceptible to infections like spontaneous bacterial peritonitis (SBP).

5. Diagnosis of Cirrhosis:

· Blood Tests: Liver function tests (LFTs), complete blood count (CBC), and prothrombin time (PT) may indicate liver damage. Low albumin and elevated bilirubin levels suggest liver dysfunction. Vitamin K levels may also be low due to poor absorption, leading to coagulopathy.

· Imaging: Ultrasound, CT scans, and MRI are used to assess liver structure, detect ascites, or signs of liver cancer.

· Liver Biopsy: The definitive method for diagnosing cirrhosis and determining the extent of liver damage.

· Endoscopy: To check for esophageal varices in cases of portal hypertension.

6. Treatment of Cirrhosis:

· Managing the Underlying Cause: If cirrhosis is caused by chronic hepatitis B or C, antiviral medications may help manage the infection. If alcohol is the cause, complete cessation of alcohol is critical.

· Dietary Modifications: A low-sodium diet to manage ascites and edema, along with adequate protein intake for liver repair. Vitamin K may need to be supplemented if there is a deficiency.

· Medications:

· Diuretics: To manage ascites and edema.

· Beta-blockers: To reduce portal hypertension and prevent variceal bleeding.

· Lactulose: To treat hepatic encephalopathy by reducing ammonia levels in the blood.

· Antibiotics: For treating infections like spontaneous bacterial peritonitis (SBP).

· Liver Transplantation: In advanced cirrhosis, where the liver's function is irreversibly damaged, a liver transplant may be required.

7. Prevention and Management:

· Avoiding Hepatitis Infections: Vaccination and antiviral treatments for hepatitis B and C.

· **Managing Alcohol Intake: Alcohol should be avoided if cirrhosis is alcohol-induced, and any liver damage should be addressed early.**
· **Regular Monitoring: Patients with cirrhosis should have regular follow-ups, including blood tests, imaging, and screening for complications like liver cancer.**
· **Maintaining Nutrition: Adequate nutrition, including supplementation with fat-soluble vitamins like Vitamin K, should be ensured.**

Q.149 **A nurse is caring for a patient after a thoracotomy. Which of the following actions should the nurse prioritize to prevent atelectasis?**

A. Incentive spirometry and deep breathing exercises
B. Administering pain medications
C. Encouraging the patient to remain in bed
D. Limiting fluid intake

Answer: A

Sol:

Incentive spirometry and deep breathing exercises: **Incentive spirometry** and **deep breathing exercises** are **the most effective interventions** to prevent **atelectasis** after a thoracotomy. **Atelectasis** refers to the collapse of lung tissue, which can occur due to shallow breathing, immobility, or pain following surgery. **Incentive spirometry** helps promote deep breaths, improving lung expansion and preventing the alveoli from collapsing. Encouraging **deep breathing exercises** helps increase lung volume and enhances oxygenation. These actions are crucial for preventing complications like **atelectasis** in post-surgical patients, especially after procedures like a thoracotomy.
Administering pain medications: **Pain management** is an important part of post-operative care after a thoracotomy, as **adequate pain control** enables the patient to **breathe deeply** and **cough effectively**, both of which are important for preventing atelectasis. However, while **pain medication** is important, it is **not as direct** in preventing atelectasis compared to **incentive spirometry** and **deep breathing exercises**. Pain relief should be provided in conjunction with other preventive measures.
Encouraging the patient to remain in bed: Encouraging the patient to **remain in bed** is actually **counterproductive** in preventing atelectasis. **Immobility** can worsen the risk of lung complications, including **atelectasis**. After surgery, patients should be encouraged to **mobilize** and **change positions frequently** to facilitate lung expansion and prevent the collapse of lung tissue. Bed rest should be limited, and patients should be encouraged to **sit up** and **perform breathing exercises** to maintain optimal respiratory function.
Limiting fluid intake: There is no direct link between **fluid intake** and the prevention of **atelectasis**. In fact, adequate hydration is important for maintaining overall health and **keeping mucus thin** so it can be more easily cleared from the lungs. While excessive fluid intake can lead to **overhydration** or **pulmonary edema** in some cases, **limiting fluid intake** would not help prevent atelectasis and could be harmful in the post-operative period.

Q.150 **Who has developed the Theory of Emotional Development?**
Options:

A. Sigmund Freud
B. James Fowler
C. Lawrence Kohlberg
D. Erik H Erikson

Answer: D

Sol:

Ans. (d) Sol. Erik H. Erikson developed the Theory of Emotional Development, which includes his well-known stages of psychosocial development. Erikson's theory focuses on the emotional and psychological development across eight stages, each characterized by a specific conflict to be resolved.
Explanation of each option:
· **(a) Sigmund Freud** – Incorrect. Freud is known for his theory of psychosexual stages of development, not emotional development.
· **(b) James Fowler** – Incorrect. James Fowler developed the Stages of Faith development theory, not the Theory of Emotional Development.
· **(c) Lawrence Kohlberg** – Incorrect. Kohlberg is famous for his stages of moral development.
· **(d) Erik H Erikson** – Correct. Erikson's theory emphasizes psychosocial development and emotional growth throughout life.

Q.151 **A child diagnosed with congestive heart failure (CHF) is prescribed digoxin. Which sign should the nurse report immediately before giving the next dose?**

A. Heart rate of 120 bpm
B. Vomiting
C. Respiratory rate of 22/min
D. Blood pressure of 110/70 mmHg

Answer: B

Sol:

Sol. Vomiting is one of the earliest and most common signs of digoxin toxicity in children. Other signs include bradycardia, anorexia, and visual disturbances. Nurses must withhold the drug and notify the provider if such symptoms occur before administering the next dose.
Explanation of each option:
· (a) Heart rate of 120 bpm – Within normal limits for infants and toddlers depending on age. Not alarming unless combined with other symptoms.
· (b) Vomiting – Correct. May signal toxicity even before bradycardia appears. Repeated vomiting in infants warrants drug review.
· (c) Respiratory rate of 22/min – Normal for school-aged children; not a concern unless respiratory distress is present.
· (d) Blood pressure of 110/70 mmHg – Normal for many children; no immediate cause for concern.

Q.152 **Betty is a 9-year-old girl diagnosed with cystic fibrosis. Which of the following must Nurse Archie keep in mind when developing a care plan for the child?**

A. Pulmonary secretions are abnormally thick.
B. Elevated levels of potassium are found in sweat.
C. CF is an autosomal dominant hereditary disorder.
D. Dysfunction of the endocrine glands occurs.

Answer: A

Sol:

Cystic fibrosis (CF) is a chronic, genetic disorder that primarily affects the respiratory and digestive systems due to defective chloride transport across epithelial cells, leading to abnormally thick and sticky mucus. Nurse Archie must focus on this aspect when developing a care plan.
In CF, the mucus-producing glands in the lungs and digestive tract secrete thick, viscous mucus, which clogs airways and obstructs the ducts of organs such as the pancreas.
This results in recurrent lung infections, difficulty breathing, and impaired nutrient absorption.
Care plans focus on:
Airway clearance techniques (e.g., postural drainage, chest physiotherapy).
Preventing and treating respiratory infections.
Optimizing nutrition and pancreatic enzyme replacement.
Why Other Options Are Incorrect:
Elevated levels of potassium are found in sweat:
Incorrect. In CF, elevated levels of sodium and chloride are found in sweat, not potassium. This is due to defective CFTR (Cystic Fibrosis Transmembrane Conductance Regulator) channels. The "sweat chloride test" is a diagnostic test for CF.
CF is an autosomal dominant hereditary disorder:
Incorrect. CF is an autosomal recessive hereditary disorder, not dominant. Both parents must carry and pass on a defective gene for the child to develop CF.
Dysfunction of the endocrine glands occurs:
Partially correct but not specific. CF mainly affects the exocrine glands (mucus-producing glands) rather than endocrine glands. Exocrine dysfunction impacts the lungs, pancreas, and digestive system more significantly.
Key Nursing Considerations for CF:
Airway management: Promote airway clearance to prevent mucus buildup.
Infection control: Monitor for respiratory infections and provide antibiotics as needed.
Nutritional support: Administer pancreatic enzymes and high-calorie, high-protein diets.
Hydration: Ensure adequate fluid intake to help thin mucus secretions.
Conclusion:
The most critical consideration in cystic fibrosis is the presence of abnormally thick pulmonary secretions, which significantly impact respiratory function and overall care.

Q.153 **A patient admitted in hospital is suffering from pain, stiffness, and fever for 3 days. He is confirmed with HAI (Hospital-Acquired Infection). When should a nurse tell the patient about HAI?**

A. On admission
B. After 1 day
C. After 2 days
D. At discharge

Answer: C

Sol: A Hospital-Acquired Infection (HAI), also called a Nosocomial infection, is defined by WHO and the Centers for Disease Control and Prevention (CDC, USA) as:

- "An infection occurring in a patient during hospital care which was not present or incubating at the time of admission and usually appears after 48 hours (2 days) of admission."
- Infections that appear after 2 days are considered hospital-acquired, while those within the first 48 hours are generally community-acquired.

Therefore, a nurse should explain or inform the patient that the infection is classified as HAI only after 2 days of hospital stay, once it meets the standard diagnostic criteria.

Explanation of options:

(a) On admission – At admission, any infection is considered community-acquired, not HAI.

(b) After 1 day – 24 hours is too early; does not meet WHO/CDC criteria of 48 hours.

(c) After 2 days – Correct. WHO and CDC both confirm the cut-off is ≥48 hours after admission.

(d) At discharge – Wrong, as HAI is diagnosed and explained once confirmed during stay, not delayed until discharge.

Q.154 **Which nursing assessment is most important post VP shunt surgery?**

A. Monitoring bowel sounds
B. Assessing pupillary response and level of consciousness
C. Checking for dental eruption
D. Measuring limb length

Answer: B

Sol:

Sol. After VP shunt placement, the most important nursing assessment is continuous monitoring of pupillary response and consciousness level. Changes in these parameters are early warning signs of increased intracranial pressure or shunt malfunction. Prompt recognition of these signs can prevent further neurological damage or fatal complications. Neurological observations should be done hourly in the immediate post-op phase.
Explanation of each option:
· (a) Monitoring bowel sounds: Important for abdominal surgeries, but not a priority in neurosurgical cases unless there are GI-related post-op issues.
· (b) Assessing pupillary response and level of consciousness: Correct. These are the most sensitive indicators of raised ICP or shunt failure and need close monitoring post-surgery.
· (c) Checking for dental eruption: This is part of routine pediatric growth assessment and not related to hydrocephalus or its treatment.
· (d) Measuring limb length: This is irrelevant to neurological or post-shunt status and is more used in orthopedic evaluations.

Q.155 **Which sound is considered normal when auscultating the abdomen?**

A. High-pitched tinkling sounds
B. Absent bowel sounds for 2 minutes
C. Soft gurgling sounds occurring every 5–15 seconds
D. Continuous loud rumbling

Answer: C

Sol:

Normal bowel sounds are described as intermittent, low to moderate-pitched gurgling sounds occurring every 5 to 15 seconds. These are produced by the movement of air and fluid through the intestines (peristalsis). Auscultation should be done with the diaphragm of the stethoscope, and each quadrant should be listened to for at least one full minute before declaring sounds absent or abnormal.
Explanation of each option:
· (a) High-pitched tinkling sounds: Incorrect. These may indicate bowel obstruction, where intestinal contents are trying to pass through a narrowed or blocked area. These sounds are often accompanied by cramping and abdominal pain.
· (b) Absent bowel sounds for 2 minutes: Incorrect. Absence of sounds for 2 minutes is not sufficient to declare bowel sounds absent. Absence must be confirmed only after 5 minutes of continuous auscultation in each quadrant.
· (c) Soft gurgling sounds occurring every 5–15 seconds: Correct. These sounds indicate normal gastrointestinal motility and suggest that peristalsis is functioning properly.
· (d) Continuous loud rumbling: Incorrect. Loud and continuous rumbling (borborygmi) may occur in hyperperistalsis or conditions like diarrhea, and are not considered normal baseline sounds.

Q.156 **A patient with peptic ulcer disease is prescribed omeprazole. What is the primary nursing consideration?**

A. Encourage the patient to take it with milk
B. Administer before meals
C. Give with antacids for better effect
D. Avoid giving if the patient is on a bland diet

Answer: B

Sol:
Omeprazole is a proton pump inhibitor (PPI) that suppresses gastric acid secretion by blocking the H^+/K^+ ATPase pump in gastric parietal cells. For maximum effectiveness, it must be administered 30 to 60 minutes before meals, ideally in the morning. This ensures the drug acts on the active proton pumps, which are most engaged after food stimulation. Administering it properly enhances mucosal healing and symptom control in peptic ulcer disease.
Explanation of each option:
· (a) Encourage the patient to take it with milk: Incorrect. Milk might temporarily soothe acid symptoms, but it can stimulate acid production later. Also, milk isn't necessary to take with omeprazole.
· (b) Administer before meals: Correct. Omeprazole should be given before food, when proton pumps are most responsive, ensuring optimal acid suppression.
· (c) Give with antacids for better effect: Incorrect. Antacids may interfere with absorption or alter the pH required for omeprazole activation. These drugs are not usually taken together.
· (d) Avoid giving if the patient is on a bland diet: Incorrect. A bland diet is supportive in ulcer management but has no bearing on the use or timing of omeprazole.

Q.157 **Which part of the nephron is primarily responsible for glucose reabsorption?**

A. Distal convoluted tubule
B. Loop of Henle
C. Proximal convoluted tubule
D. Collecting duct

Answer: C

Sol: The proximal convoluted tubule (PCT) is the primary site where nutrients like glucose, amino acids, and bicarbonate are reabsorbed from the filtrate. Glucose is reabsorbed via sodium-glucose cotransporters (SGLTs). If the blood glucose level is too high, as in diabetes, it exceeds the renal threshold and glucose appears in urine. Explanation of options: (a) Distal convoluted tubule – Mostly responsible for selective ion reabsorption and pH balance, not glucose. (b) Loop of Henle – Plays a role in concentrating urine and handling sodium, chloride, and water, but not glucose. (c) Proximal convoluted tubule – Correct answer. The main site of glucose and other essential nutrient reabsorption. (d) Collecting duct – Regulates final urine composition under hormonal control but not glucose reabsorption.

Q.158 **What is the primary function of the glomerulus in the nephron?**

A. Reabsorption of water
B. Filtration of blood
C. Secretion of ions
D. Concentration of urine

Answer: B

Sol: The glomerulus is a capillary network inside the nephron's Bowman's capsule. It functions to filter blood, allowing water, glucose, salts, and waste products to pass through while preventing large proteins and cells from entering the filtrate. This is the first and essential step in urine formation. Explanation of options: (a) Reabsorption of water – This occurs in the proximal tubule, loop of Henle, and collecting duct, not in the glomerulus. (b) Filtration of blood – Correct answer. The glomerulus is specifically designed to filter plasma and initiate urine production. (c) Secretion of ions – Ion secretion occurs mainly in the distal convoluted tubule, not at the glomerulus. (d) Concentration of urine – Urine concentration happens later in the nephron, especially in the loop of Henle and collecting duct under ADH influence.

Q.159 **Which hormone increases water reabsorption in the kidneys?**

A. Aldosterone
B. Antidiuretic hormone (ADH)
C. Parathyroid hormone (PTH)
D. Calcitonin

Answer: B

Sol: ADH is secreted by the posterior pituitary gland and plays a key role in regulating body water balance. It acts on the distal convoluted tubule and collecting ducts to increase their permeability to water by inserting aquaporins. This results in concentrated urine and reduced water loss. Explanation of options: (a) Aldosterone – This hormone controls sodium and potassium levels by acting on the distal tubule and collecting duct, indirectly

influencing water. (b) Antidiuretic hormone – Correct answer. Directly promotes water reabsorption, helping to conserve body fluids. (c) Parathyroid hormone – Regulates calcium and phosphate metabolism, with minimal effect on water balance. (d) Calcitonin – Mainly involved in lowering blood calcium levels, not water reabsorption.

Q.160 **What is the normal range of glomerular filtration rate (GFR) in adults?**

A. 10–20 mL/min
B. 50–70 mL/min
C. 90–120 mL/min
D. 150–200 mL/min

Answer: C

Sol: GFR is the amount of filtrate produced by the kidneys each minute. In healthy adults, it typically ranges from 90–120 mL/min/1.73 m^2. This value reflects efficient kidney function. A GFR below 60 for more than 3 months is indicative of chronic kidney disease. Explanation of options: (a) 10–20 mL/min – Very low and seen in patients with end-stage renal failure. (b) 50–70 mL/min – Indicates moderate to severe renal impairment. (c) 90–120 mL/min – Correct answer. This is the standard range indicating healthy filtration capacity. (d) 150–200 mL/min – Abnormally high and not typical under normal physiology; could indicate hyperfiltration in early diabetes.
