



Nursing Revision Questions -12

community health nursing (Kenya Medical Training College)



Scan to open on Studocu

REVISION QUESTIONS SEM1-EDITION1

DIPLOMAINCOMMUNI
TTYHEALTHNURSING

AUTHOR– ELIAS

BARASA

D/NURS/22010/1439

KMTC MOMBASA

SEPT 2021

Anatomy and Physiology:

1. State 2 components of the central nervous system.
The central nervous system consists of 1. The Brain 2. The spinal cord
2. Explain the composition of the peripheral nervous system.
The peripheral nervous system refers to parts of the nervous system outside the brain and spinal cord. It includes the cranial nerves, spinal nerves and their roots and branches, peripheral nerves, and neuromuscular junctions
3. State 4 components of plasma.
Plasma contains 1. Minerals and respiratory gases 2. Antibodies 3. Coagulant factors 4. Fibrinogen 5. Albumin
4. State 6 factors that affect heart rate.
 1. The terrain – a walk uphill increases the heart rate due to higher oxygen demand to compensate the much used oxygen. A walk downhill does the vice versa
 2. Temperature: an increase in body temperature causes the body to sense a thermal stress hence an increase in heart rate to supply blood more superficially and rapidly to your skin to dissipate heat loss. Similarly decrease in body temperature increases blood supply to warm you.
 3. Dehydration: as one becomes increasingly dehydrated, their blood becomes thicker due to accumulation of waste products. This causes the heart rate to increase in order to maintain the cardiac output volume.
 4. Diminishing glycogen: The body stores energy in tissues in form of ATP and glucose. A reduction in the optimum levels causes the HR to increase in order to supply the insufficient glycogen present in the blood to the rest of the body systems.
 5. Emotions and anxiety: our body's natural response to emotions like stress is to produce stress hormones that include cortisol and adrenaline which causes our heart to beat more rapidly and blood vessels to narrow and help blood reach the central parts. In turn, they also increase blood pressure and blood sugar.
 6. Medication: Some medication when taken can either increase or decrease the heart rate due to impairment of the normal electrical signals in your heart and cause an increased/faster heart rate. (Tachycardia) causing dizziness or lightheaded.
5. State three processes involved in the formation of urine.
There are three main steps of urine formation: glomerular filtration, reabsorption, and secretion.
6. State 4 factors which affect cardiac output.
 1. Heart volume
 2. Contractility of the ventricles
 3. Gender.
 4. Fitness level
 5. Duration of contraction
7. Explain 3 functions of the cerebral cortex.
The cerebral cortex is the largest covering of the brain and is wrinkled to increase the surface area for the habitation of as many neurons as possible. Its complex function is mostly in the subdivisions of the lobes namely:
 1. The frontal lobe for memory, speech recognition and emotions etc.
 2. The parietal lobes for integration of body sensory information.
 3. Temporal lobe for integration of memory, emotions forming speech etc.
 4. Occipital lobe for integration of visual effects and color recognition
8. Explain 4 types of bones, giving an example in each type.
The four principal types of bones are:
 1. Long bones e.g. thigh, leg, arm and forearm,
 2. Short Bones e.g. bones of the wrist and ankle ,
 3. Flat bones e.g. the cranium bones.
 4. Irregular bones e.g. the vertebrae and the skull.

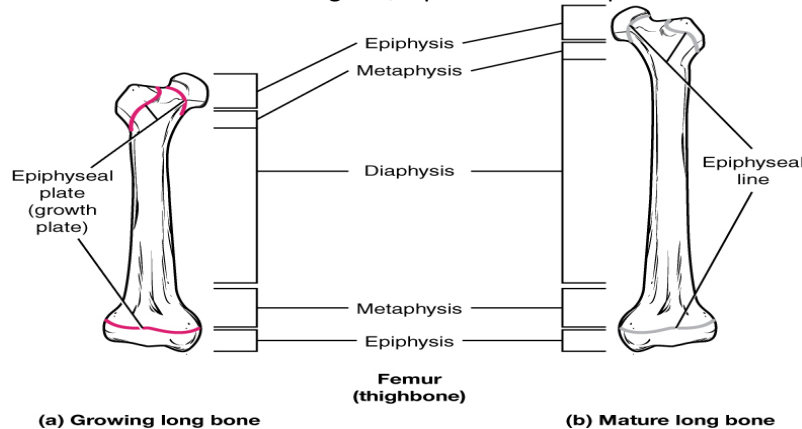
9. State the functions of cerebrospinal fluid.

1. Acts as a shock protection fluid to the brain against any mechanical damage
2. Supports 97% of the weight to the brain in the cranium
3. Carries chemical signals like hormones
4. Helps in nourishment of the brain.

10. State the functions of reticular formation.

The reticular layer formation of the skin is made up of collagen fibers that are arranged in parallel, making it dense hence (i) Strengthening the skin to provide its structure and elasticity. (ii) It also functions to support other components of the skin including the hair follicle, blood vessels and sweat glands among others.

11. With an aid of well labeled diagram, explain the development of bone tissue.



Endochondral ossification follows five steps. (a) Mesenchymal cells differentiate into chondrocytes that produce a cartilage model of the future bony skeleton. (b) Blood vessels on the edge of the cartilage model bring osteoblasts that deposit a bony collar. (c) Capillaries penetrate cartilage and deposit bone inside cartilage model, forming primary ossification center. (d) Cartilage and chondrocytes continue to grow at ends of the bone while medullary cavity expands and remodels. (e) Secondary ossification centers develop after birth. (f) Hyaline cartilage remains at epiphyseal (growth) plate and at joint surface as articular cartilage.

12. Explain the 3 types of muscles giving specific examples.

1. Skeletal muscles – these are muscles attached to the bones, controlled by a portion of peripheral NS. (they are voluntarily controlled)
2. Smooth muscles – muscles found in the hollow spaces of blood vessels, Gastrointestinal tracts, small intestines etc. they are autonomic (Involuntarily controlled)
3. Cardiac muscles – these are the muscles of the heart and are also controlled by autonomic NS.

13. State 3 layers of tissue covering the walls of arteries and arterioles.

1. Tunica intima - inner most
2. Tunica media – middle layer
3. Tunica externa – the outer layer

The lumen is the blood containing space. Capillaries have only one layer.

14. State 2 mechanisms which control the blood pressure.

The following mechanisms are used in blood pressure regulation.

1. Variety of cardiovascular control systems which manage the cardiac output in 3 ways:
 - i. Stimulating the cardiac output by increasing the heart rate through sympathetic cardiac nerves
 - ii. Inhibition of cardiac output by decreasing the heart rate through parasympathetic nerve impulses
 - iii. Vasomotor center regulates blood vessel diameter through sympathetic motor neurons
Nb: the cardiac center receives the information through the baroreceptors located in the carotid sinus, aortic arch and the right atrium.
Also through chemoreceptors which detect the CO_2 and O_2 concentration at carotid sinus and aortic arch.
2. Hormonal regulation by the kidney through regulation of the blood volumes. (Renin Angiotensin – Aldosterone System, RAAS)

In response to risen blood pressure, juxtaglomerular secretes renin into the blood system. Renin converts plasma protein angiotensinogen into angiotensin I and subsequently angiotensin II. Angiotensin II then

constricts blood vessels throughout the body. This raises blood pressure and reduces blood volume delivered to the kidney. In this effect, the kidney has a reduced potential to excrete water: meaning, raising blood pressure by increasing blood volume.

Ref: (<https://www.cliffsnotes.com/study-guides/anatomy-and-physiology/the-cardiovascular-system/control-of-blood-pressure>)

15. List 8 arteries forming the circle of Willis.

The **Anterior Communicating,**
Anterior Cerebral,
Internal Carotid,
Posterior Communicating,
Posterior Cerebral,
Basilar Arteries

16. List 6 components of the lymphatic system.

1. Lymph organs
2. Lymph
3. Lymph vessels
4. The spleen
5. Thymus
6. The tonsils

17. Explain 2 types of nerves which transmit nerve impulses

- Sensory Nerves – they transmit nerve impulses from sensory organs to the central nervous system.
- Motor nerves – they transmit impulses from the central nervous system towards the organs, muscles and glands etc.

18. Explain 3 layers of the meninges.

- Dura matter – this is the outer covering layer of the meninges
- Arachnoid matter - this is the middle covering layer of the meninges between dura and pia
- Pia matter this is the innermost layer of the meninges separated by subarachnoid layer

19. Explain the 3 functions of the cerebral cortex.

The cerebral cortex is the outermost layer of the brain that is associated with

1. Determining intelligence.
2. Determining personality.
3. Motor function.
4. Planning and organization.
5. Touch sensation.
6. Processing sensory information.
7. Language processing.

20. State the functions of insulin.

Insulin is a natural hormone produced by your pancreas that regulates usage and storage of blood sugar (glucose).

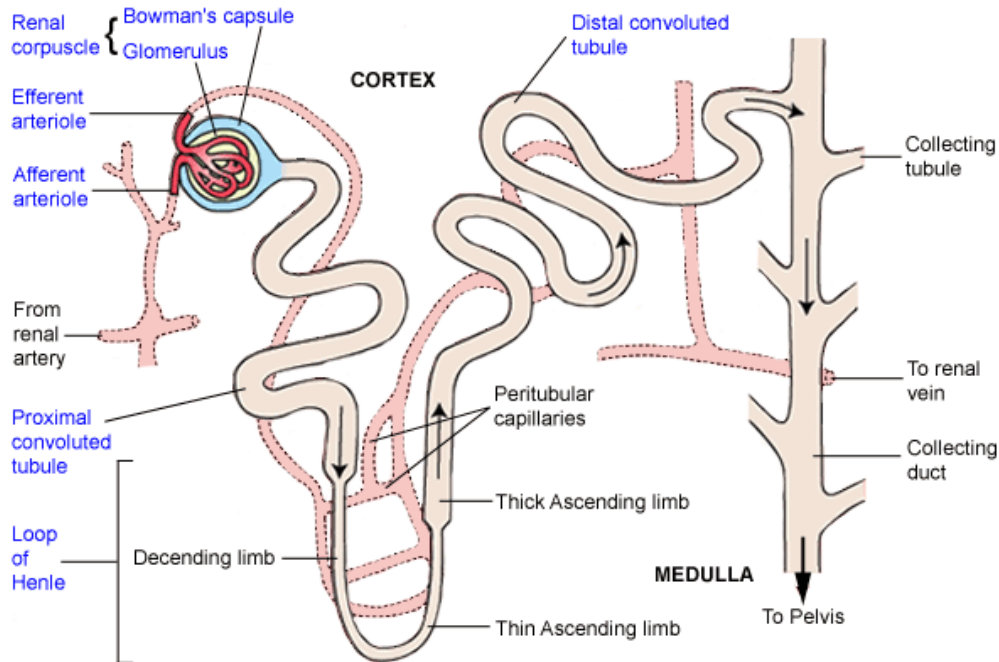
21. Explain the three types of joints giving examples.

- Fibrous joints – permits no movement e.g. skull joints.
- Cartilaginous joints – formed by a pad of tough fibrocartilage acting as shock absorbers e.g. between vertebral bodies.
- Synovial joints – presence of a capsule between the articulating bones e.g. hinge, ball and socket, gliding etc.

22. Discuss the functions of the stomach.

- Temporary storage for food, which passes from the esophagus to the stomach where it is held for 2 hours or longer
- Mixing and breakdown of food by contraction and relaxation of the muscle layers in the stomach
- Digestion of food and secretion of digestive hormones in the stomach

23. With the aid of a well-labeled diagram of a nephron, describe the process of urine formation.



The process of urine formation in kidneys includes the following steps:

- (i) **Glomerular filtration** - Urine formation begins when the blood is filtered by the glomerulus and enters the Bowman's capsule and the glomerular filtrate is formed. The afferent arteriole entering the glomerulus is wider than the efferent arteriole in diameter. This increases the blood pressure within the glomerulus, which helps in the filtration. Glomerular filtrate is formed of all blood constituents except corpuscles and plasma proteins.
- (ii) **Tubular reabsorption** - When the glomerular filtrate comes to the proximal tubule, then the essential nutrients are reabsorbed. Glucose, amino acids, water, ions like sodium, potassium, chloride, bicarbonate, magnesium, calcium are reabsorbed from the glomerular filtrate. When the filtrate finally comes to the collecting duct, ADH (anti-diuretic hormone) acts and reabsorbs the excess water and decreases the urine volume.
- (iii) **Tubular secretion** - When the glomerular filtrate is in the proximal tubule, creatinine, uric acid are secreted in it. When the filtrate goes to the distal part, urea, potassium ion, and some hydrogen ions are secreted in it.

24. Explain the functions of the skin.

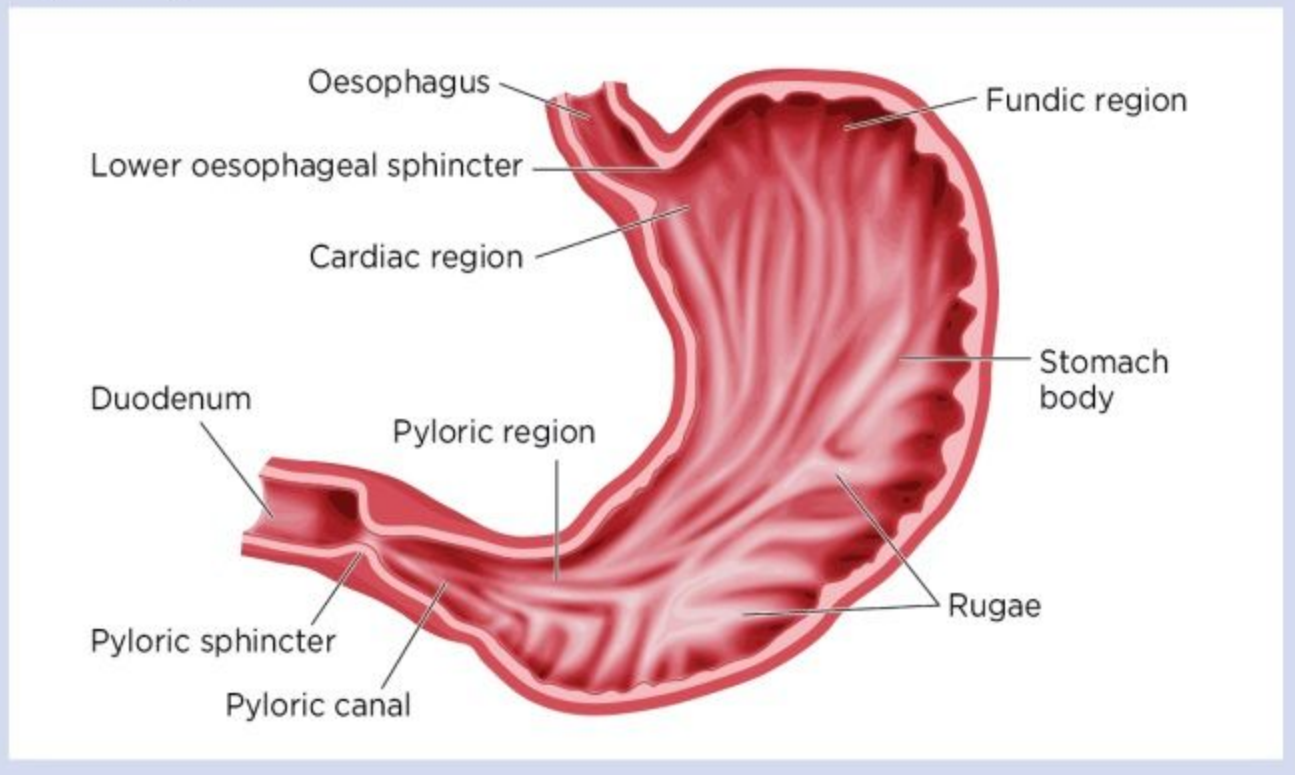
- Provides a protective barrier against mechanical, thermal and physical injury and hazardous substances to internal structures of the body.
- Prevents loss of moisture.
- Reduces harmful effects of UV radiation.
- Acts as a sensory organ (touch, detects temperature).
- Helps regulate temperature.
- An immune organ to detect infections etc.
- Production of vitamin D

25. Explain the structural relationship between chromosomes, genes and DNA.

27.

a) Draw a clearly labeled diagram of the stomach showing its main parts.

Fig 1. **Regions of the stomach**



b) Explain the functions of the stomach.

- Temporary storage for food, which passes from the oesophagus to the stomach where it is held for 2 hours or longer
- Mixing and breakdown of food by contraction and relaxation of the muscle layers in the stomach
- Digestion of food and secretion of digestive hormones in the stomach

Nursing Fundamentals:-BNP, Professionalism, Nursing Process and Theories:

1. Differentiate between the two terminologies:
 - a) Tachycardia. – an increase in heart rate due to medication. (Abnormally fast rate)
 - b) Tachypnoea. Condition that refers to rapid breathing. Abnormally fast (polypnea)
 - c) Bradycardia – reduced/slow/diminishing fetal heart rate
2. List any 6 bed appliances.
 1. Mackintosh
 2. bed pan
 3. over bed table
 4. mattress
 5. fitted sheets
 6. headboard covers
 7. bed rails
3. List 4 sites where pulse can be taken on a human body.
 1. Popliteal – the back of the knee
 2. Temporal – lateral to the eye, medial to the ear
 3. Carotid - side of the neck
 4. Apical – apex of the heart
 5. Radial – at the wrist (anterior part)
 6. Femoral – at the inguinal ligament (thigh)

7. **Brachial** – anterior part of the arm in children
8. **Dorsal** – on top of the foot
4. List 4 observations noted on respirations.
 1. **Tachypnoea**: Abnormally fast over 20 breaths per minute.
 2. **Bradypnea**: Abnormally slow less than 12 breaths per minute.
 3. **Apnoea**: there is an absence of respiration for several seconds - this can lead to respiratory arrest.
 4. **Dyspnoea**: difficulty in breathing, the patient gasps for air.
 5. **Cheyne-Stokes**: *respiration* the breathing is shallow, very slow and laboured with periods of apnoea. This type of breathing is often seen in the dying patient.
 6. **Hyperventilation**: patients may breathe rapidly due to a physical or psychological cause,
7. Name 4 methods of raising body temperature.
 1. Exercising.
 2. Eat right – bananas, ginger, butter nut, sweet potato.
 3. Indulge in hot baths and spas
 4. Electric blanket
 5. Putting on warm clothing
8. Define the following terms:
 - a. Isolation nursing. – It is an infection spreading prevention method of nursing infected patient separately from the rest.

REVISION QUESTIONS SEM1- EDITION 1

2018

- b. Barrier nursing. Local isolation of a patient with an infectious disease (by use of gowns, caps, overshoes, gloves and masks) so as to avoid spread.
 - c. Reverse barrier nursing. Describes a nursing care range of practices used to protect highly susceptible hospital patients from infection.
9. One of the methods of handing over reports is by moving from patient to patient reporting one each patient. List any 2 advantages and 2 disadvantages of this type of report.

Advantages:

 1. It gives confidence to the patients by knowing their incoming care giver
 2. Serves also as a way of knowing the wellbeing and progress of patients since then
 3. Helps the patient in creation of rapport with incoming nurse
 4. It is open and more professional.
 5. Patients can be observed when report is being given
 6. Useful in the wards where there are too many patients and patients share beds or lie on the floor

Disadvantages:

 1. It consumes more time in the process of handing over
 2. Causes disturbance and anxiety to the resting patients
 3. Confidentiality is not well maintained
 4. May lead to exposure of staff weakness unnecessarily.
10. List the 6 components of a nursing care plan.
 1. Client health assessment,
 2. Diagnostic reports.
 3. Expected client outcomes are outlined. These may be long and short term.
 4. Nursing interventions are documented in the care plan.
 5. Rationale for interventions in order to be evidence-based care.
 6. Evaluation. This documents the outcome of the interventions.

- 11.** For the following statements, indicate whether they are TRUE or FALSE:
- Nursing diagnosis remains constant while medical diagnosis keeps changing.....
False.....
 - Dehydration is a nursing diagnosis when a patient loses fluid through diarrhea and vomiting..... True.....
- 12.** State any five functions of the nursing council of Kenya.
- Regulates nursing standards of operations
 - Licensing, enrollment and registration of nurses
 - Oversees academic programs and syllabus for nursing students
 - Advocates for nurses rights
 - Prescribes the nursing uniforms for nurses
- 13.** State the role of the escort nurse in referral and transfers.
- Monitoring and evaluating vital signs of the referred patient
 - Is the custodian of the patient's referral file
 - Taking care of the patient and administration of drugs
 - Handing over of the referred patient to the referral facility
- 14.** Highlight the importance of infection prevention.
- Prevention of cross infections
 - To reduce morbidity and mortality rate
 - It helps in promotion of clean environment
 - Reduces accidents
 - Reduces diseases burden
 - Easier and cheap to maintain compared to cost of treatment
- 15.** Briefly explain how to maintain a sterile field in a ward setup during wound dressing.
- Placing sterile towels and/or surgical drapes around the surgical/procedures site.
 - Placing only sterile items within the sterile field
 - Opening, dispensing or transferring sterile items without contaminating them
 - Considering items located below the level of the draped client to be unsterile
 - Not allowing sterile personnel to reach across unsterile areas and touch unsterile items
 - Not allowing unsterile personnel to reach across the sterile field or to touch sterile items.
 - Limit the entry of unauthorized individuals to surgical/procedure areas
 - Close doors and curtains during all procedures
 - Require that personnel in the surgical area wear clean clothes, a mask, a cap and sturdy footwear
 - Enclose surgical procedure area to minimize dust and eliminate insects
- 16.** Outline 5 measures of preventing pressure sores in a patient.
- Inspect all areas at least twice a day
 - Position and turn patients as often as possible, at least 2 hourly
 - Ensure bedpans are not chipped and should be well padded
 - Keep skin clean, dry and change soiled linen
 - Use of special appliances e.g. airings
 - Massage skin to improve/promote circulation
 - Ensure patient is well hydrated and nourished (eating a balanced diet with adequate protein)
- 1.** Briefly explain the observation you will carry out in a patient immediately after receiving him/her from major surgery.
- Vital signs – to ensure the general condition of the patient is good
 - Bleeding – check if there is bleeding from the site or surgery that is not regular
 - Breathing – confirm that the patient is not having distress in regular breathing
 - Any abnormality on cannulations

2. The current nurses' training traces back to 1860 when Florence Nightgale started a Nurses'school in London. State any 5 principles on which her training school was based on.
Pure air, pure water, efficient drainage, cleanliness, and light." A healthy environment is essential for healing.
3. Highlight any 5 characteristics of profession.
 1. Members of a profession are committed to continuing study, to enlarging their body of knowledge
 2. Services provided are vital to human society and social welfare.
 3. A profession functions autonomously and is committed to higher standards of achievement and conduct
 4. Practitioners are educated in institutions of higher learning
 5. Practitioners are motivated by the services which they provide and consider their work important to their lives (altruism)
 6. There is a code of ethics that guides their decisions and conduct
 7. High standards of practice are encouraged and supported by an organization
 8. Professionalism: Is behavior that upholds the status, methods, character and standards of a profession
4. What are the objections of isolation nursing?
 1. For prevention of cross infection
 2. To provide quality care
 3. For close monitoring and observation
5. Describe the bill of rights of customers.
6. Highlight the principles of specimen collection.
 1. Store in a good container
 2. Collect the required amount only
 3. Ensuring that specimens are accurately obtained,
 4. Correctly labeled,
 5. Collected in appropriate containers
 6. Transferred to the laboratory in time
7. Outline the rights of a nurse as a worker.
 1. Right to practice in a manner that fulfills their obligations to society and to those who receive nursing care
 2. Right to a work environment that is safe for themselves and for their patients.
 3. Right to freely and openly advocate for themselves and their patients,
 4. Right to fair compensation for their work,
 5. Right to negotiate the conditions of their employment
8. Briefly explain the techniques used to gather data during physical examinations, giving examples of the information that can be obtained by each technique.
 1. Interview
 2. Questionnaire
 3. Sampling
9. Master Joto, 3 years old is admitted in the pediatric ward with a major complaint of hotness of the body. On taking the vital signs the temperature is 39.8°C.
 - a. Formulate any 2 nursing diagnosis related to fever.
 - b. State any 4 immediate nursing intervention that you will put in place in an attempt to reduce fever.
 - Exposure
 - Removal of excess clothing
 - Opening windows and doors
 - Tepid sponging
 - c. Describe the nursing care of a patient during a rigor.

10. Briefly describe 5 stages of emotional responses that a patient facing death goes through.

- Denial
- Anger
- Bargaining
- Depression
- Acceptance

11. Mr. Mawe is admitted into your ward unconscious.

a. Define unconsciousness.

A condition in which there is a depression of cerebral function ranging from stupor to coma

b. Explain how you will use a neurological observation chart to determine the level of unconsciousness of Mr. Mawe.

Determine the unconscious level of my patient using Glasgow Coma Scale

The following would be interpreted in this regard:

The score is expressed in the form "GCS 9 = E2 V4 M3 at 07:35 Am"

- Best Score = 15, this shows that the patient is fully conscious
- A score of 13 or higher correlates with a mild head (brain) injury,
- A score of 9 to 12 is a moderate head (brain) injury
- A score of 8 or less a severe head (brain) injury.
- Worst Score = 3, this shows severe neurological impairment

c. Formulate any 4 nursing diagnosis related to unconsciousness.

1. The patient need for basic ventilation support and airway
2. The patient need for elimination
3. The patient need for proper blood circulation
4. The patient need for nutrition.
5. Patient's psychosocial needs
6. Skin care of the patient

d. Describe the nursing management of Mr. Mawe till fully conscious.

Basic Ventilator Support/Airway Care –

- This is airway control through positioning.
- The recovery position is best as it encourages drainage of secretions from the oral cavity.

Monitoring of Respiration

- This is meant to enable early detection of any changes that may indicate complication, for example, increase in respiration rate, abnormal respiration sounds, etc.

Ensuring Adequate Circulation

- This is achieved through maintaining adequate blood volume by administering enough fluids through the intravenous route to supplement the nasal gastric tube feeding

Nutritional Management

- Can be achieved through insertion of a nasal gastric tube and using it for feeding.

Skin Integrity

- This is maintained through proper skin hygiene, which includes
 - Daily bathing,
 - Two (2)-hourly turning of the patient and
 - Keeping the patient's bed linen clean and dry.

Elimination

- Adequate fluid intake ensures that kidney function is maintained.
- Some patients may require catheterization to keep them dry and for proper monitoring of urine production.

Psychosocial Needs

- This includes addressing the patient by their name at all times, while providing care.
- It is important to assume that the patient can hear and, therefore, you should inform the patient of any intended action that you intend to perform on them.

General Monitoring of the Vital Signs

- This must be done to evaluate the patient's progress and identify early any impending complication

12. Mrs. Patma is admitted with a diagnosis of breast cancer till fully conscious.

a. Define pre-operative care.

The care given to a patient before the operation procedure.

b. Highlight the pre-operative teaching that you will give to Mrs. Patma before operation.

- Explaining the procedure and what is expected
- The patient should be informed on the need for the operation then explain the procedure, benefits, possible risks, complications, possible outcome
- Teaching about breathing exercises they will use post – operatively to prevent respiratory complications
- Explaining on pain management
- Discussing the post – operative equipment they will need
- Psychological preparation is needed to allay anxiety and promote coping depending on the outcome of the surgery. The patient should be counseled and reassured

c. Describe the pre-operative management of Mrs. Patma until she is wheeled to the theatre.

- **Informed consent**
The patient should be informed on the need for the operation then explained to the procedure, benefits, possible risks, complications, possible outcome and be given a consent form to sign.
- **Patient Assessment**
Aimed at identifying disorders that may complicate surgery
A comprehensive history should be obtained and a physical (head to toe) examination done. In addition, the U/E/Cs samples obtained for lab tests and results obtained on time. Also take the vitals as required.
- **Patient Education**
Aims to prepare the patient on what is expected of him/her before and after surgery, which helps promote quick recovery and prevent complications.
It involves explaining the procedure and what is expected, the breathing techniques to be used.
- **Physical and Psychological Preparation**
Physical prep. Includes skin care, shaving of the surgical area if needed, bathing. Psychological preparation is meant to allay anxiety and promote coping depending on the outcome of the surgery. The patient should be counseled and reassured especially those receiving operations such as amputation, hysterectomy or mastectomy.
- **Pre – Operative Drugs**
Any drug prescribed should be given 45 – 75 minutes before the patient is taken to the theatre e.g. atropine
- **Rest and Sleep**
Ensure that the patient has adequate rest

13. Define the following terms:

- Profession. Is a calling that requires special knowledge, skill and preparation
- Professionalism. Is behavior that upholds the status, methods, character and standards of a profession
- Medical asepsis. Is the state of being free from disease causing microorganisms
- Surgical – any procedure that requires suture, incision, excision, manipulation, or other invasive procedure that usually, but not always, requires local, regional, or general anesthesia.

14. State any aspect of the nurses' code of ethics.

15. Outline the factors that influence the dosage of a drug prescribed to a patient.

1. Age
2. Route of administration
3. Type of drugs
4. Weight

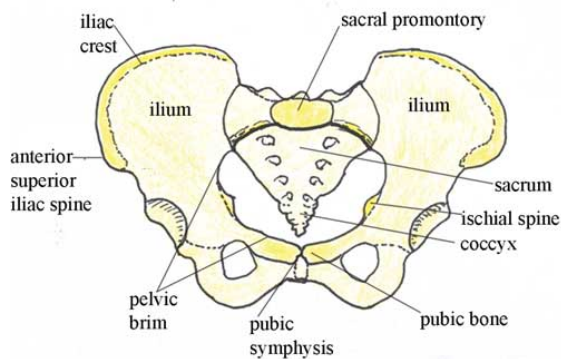
16. State the 5 rights of giving safe injection

- The right drug
- The right dose

- The right patient
- The right route
- The right time

Normal Midwifery and Reproductive Health:

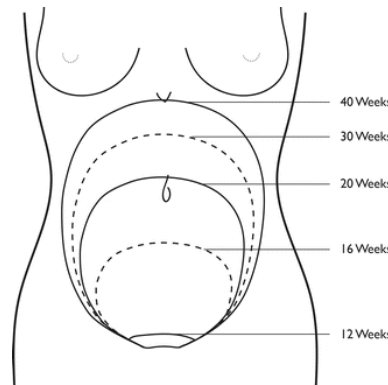
1. Draw well labeled landmarks of gynaecoid type of pelvis.



2. Briefly describe the menstrual anatomy.
3. Describe the changes that take place in the female body during the first 8 weeks of gestation.
 - ❖ First Trimester
 - Increased urination
 - Changes with skin and hair
 - Thickening waistline
 - Nausea/fatigue
 - Dehydration due to poor feeding caused by pica
4. Define normal labor.

It is the onset of coordinated, involuntary and painful uterine contractions accompanied by cervical effacement and dilatation to expel products of pregnancy at term through SVD by vertex presentation within 19 hours or 12 hours of established labour with no complications to the mother and baby.
5. State 2 factors that induce labor.
 - **Mechanical factors** (due to overstretching and over distension of uterus, the pressure of the presenting part on the nerve ending of the cervix)
 - **Hormonal factors** (The placenta efficiency is diminished toward term hence low oestrogen and progesterone hormones causing the uterus to be more sensitive thus labour onset, The placental production of oxytocin increases towards term much more so as labour to start.)
6. State 5 components of a partograph.
 - a. Biographical data
 - b. Fetal condition
 - c. Progress of labour
 - d. Maternal condition
 - e. Summary of labour.
7. State 5 minor disorders of pregnancy.
 - a. **Acidity and heart burn** (Due to relaxation of the oesophageal sphincter - Eat a balanced diet)
 - b. **Constipation** (occurs after eating too much of heavy or greasy food – Avoid indigestible food)
 - c. **Pica (cravings)** (when a mother craves certain foods or unnatural substances – explain the possible harmful effects on pica)
 - d. **Fatigue** (due to increased body weight – get enough rest, avoid overworking)
 - e. **Back ache** (due to Physiological changes in posture and body alignment - Improvement in posture)
 - f. **Urinary frequency** – (because of increased bladder sensitivity and pressure of the enlarging uterus on the bladder - Void when urge is felt, increased fluid intake)

8. Draw and label a diagram showing fundal height at various weeks of pregnancy.



9. Explain the physiological changes that take place in the breast of a pregnant woman.

During the first trimester,

Your veins on your breasts become larger, bluer, and more visible. Your breasts will also continue to grow in size. They may feel tender and swollen, although these symptoms often dissipate within the first few weeks of pregnancy as your body adjusts to the hormonal.

During the Second trimester,

During the second trimester, estrogen levels continue to rise. Your breasts will continue feeling heavy or full as the milk ducts develop. Your breasts will also start to produce colostrum during the first few weeks of the second trimester.

During the Third trimester,

As your body continues to get ready to give birth, your breasts will become even heavier and denser. Your nipples will become larger and more pronounced. They may also change shape. Your nipples and areola may continue to darken significantly. As the skin on your breasts stretches to accommodate their growing size, you may experience itching or dryness. If so, using a gentle moisturizer will help. You may also develop stretch marks.

10. Differentiate between true and false labor.

character	True labour pain	False labour pain
contractions	regular	Irregular
Interval between contractions and intensity	Progressive (increase in frequency and intensity)	Short duration, not progressive
Changes in the cervix	Associated with effacement and dilation of the cervix	Not associated with effacement and dilation of the cervix
Membranes	Associated with bulging of membranes	Not associated with bulging of membranes
Response to analgesia	Not relieved by sedation	Relieved by sedation
Labour	Followed by labour	Not followed by labour

11. Describe the pathophysiology of true labor.

The mechanisms of labour, also known as the cardinal movements, involve changes in the position of the foetus's head during its passage in labour. These are described in relation to a vertex presentation. The cardinal movements are described as the following 7 discrete sequences:

1. Engagement
2. Descent
3. Flexion
4. Internal rotation
5. Extension
6. Restitution and external rotation
7. Expulsion

12. State 5 factors that contribute to normal labor.

They are easily remembered as the five Ps (passenger, passage, powers, placenta, and psychology).

a. Passenger (Fetus).

- (1) Presentation of the fetus (breech, transverse).
- (2) Position of the fetus (ROP, LOP).
- (3) Size of the fetus.

b. Passage (Birth Canal).

- (1) Parity of the woman, if she has ever delivered before.
- (2) Resistance of the soft tissues as the fetus passes through the birth canal.
- (3) Fetopelvic diameters.

c. Powers (Contractions).

- (1) Force of the uterine contractions.
- (2) Frequency of the uterine contractions.

d. Placenta.

- (1) Site of implantation.
- (2) Whether it covers part of the cervical os.

e. Psychology (Psychological State of the Woman).

- (1) Patient extremely anxious.
- (2) Emotional factors related to the patient.
- (3) Amount of sedation required for the patient.

13. 3 indicationsof1stexaminationofa newborn.

		Score of 0	Score of 1	Score of 2
Appearance	Skin color	Blue or pale all over	Blue at extremities Body pink Acrocyanosis	No cyanosis Body and extremities pink
Pulse	Pulse rate	Absent	< 100 beats per minute	> 100 beats per minute
Grimace	Reflex irritability grimace	No response to stimulation	Grimace on suction or aggressive stimulation	Cry on stimulation
Activity	Activity	None	Some flexion	Flexed arms and legs that resist extension
Respiration	Respiratory effort	Absent	Weak, irregular, gasping	Strong, robust cry

14. Outline theprocessofanormalpeuperium.

Uterus

Weighs approximately 1000 g in pregnancy. In the 6 weeks following delivery, the uterus recedes to a weight of 50-100 g.

Cervix

The cervix also begins to rapidly revert to a nonpregnant state, but it never returns to the nulliparous state. By the end of the first week, the external os closes such that a finger cannot be easily introduced.

Vagina

The vagina also regresses but it does not completely return to its prepregnantsize.Increased vascularity and edemacauses the rugaeof the vagina begin to reappear.

Perineum

The perineum has been stretched and traumatized during the process of labor and delivery. The swollen and engorged vulva rapidly resolves within 1-2 weeks.

Abdominal wall

The abdominal wall remains soft and poorly toned for many weeks. The return to a prepregnant state depends greatly on maternal exercise.

Ovaries

The resumption of normal function by the ovaries is highly variable and is greatly influenced by breastfeeding the infant. The woman who breastfeeds her infant has a longer period of amenorrhea(**absence of menstruation**) and anovulation (**not releasing an egg**) than the mother who chooses to use formula.

Breasts

The changes to the breasts that prepare the body for breastfeeding occur throughout pregnancy. Lactogenesis, which is the development of the ability to secrete milk, occurs as early as 16 weeks gestation. The placenta supplies high levels of circulating progesterone which activates mature alveolar cells in the breast to secrete small amounts of milk.

15. State 5 temporary structures of fetal circulation.

- a. Umbilical veins – has a branch that joins the portal vein to supply the liver. Supplies oxygen and nutrients
- b. Umbilical arteries – they return blood to the placenta as they branch off from the internal iliac artery
- c. Ductus venosus – connects the umbilical vein to the inferior vena cava. Carries partially deoxygenated blood
- d. Ductus arteriosus – leads from the bifurcation of the pulmonary artery to the descending aorta
- e. Foramen ovale – diverts blood from passing in the lungs for oxygenation but rather to enter inferior vena cava

16. Mrs. Obiero para 1+0 gravida 2 comes to the prenatal clinic for the first time at 24 weeks gestation:

a. Define focused antenatal care.

This is a goal-oriented antenatal care approach that aims to promote the health of mothers and their babies through targeted assessments of pregnant women.

b. State 4 components of focused antenatal care.

7. Evaluation – Includes history taking, physical examination and other diagnostics
8. Intervention – which includes prevention/prophylaxis administration and treatment
9. Promotion of health – through health education message, family planning and risk awareness
10. Partner involvement – mainly spouses and or any close family relative to be able to arrange for financial preparedness.

c. Describe the management of Mrs. Obiero during this visit.

- Should have occurred before 16 weeks of pregnancy but now you include second visit procedures since she is in her 2nd trimester
- Determine the woman's medical and obstetric history in order to determine if she needs special care and/or referral.
- Perform basic examinations (pulse rate, blood pressure, respiration rate, temperature, pallor, etc.).
- Provide HIV counselling and PMTCT services where necessary
- Give advice on malaria prevention and provide insecticide-treated bed nets (ITNs).
- Check her urine for sugar if you suspect she may be developing diabetes.
- Advise her and her partner to save money in case of any emergency
- Provide specific answers to the woman's questions or concerns, or those of her partner.
- Determine the fundal height measurement based on last normal menstrual period (LNMP)
- **In addition:**
- Address any complaints and concerns of the pregnant woman and her partner.
- If with a history of hypertension or pre-eclampsia/eclampsia, perform the dipstick test for protein in the urine.
- Review and if necessary modify her individual birth plan.
- Give advice on any sources of social and financial support that may be available in her community.

Schedule the third visit at 30-32 weeks

17. Ms. Rose aged 18 years para 0+0 gravida 1 is admitted in the labor ward in labor pains. On examination, the cervix is 4cm dilated:

a. Describe the management of Ms. Rose from admission until the commencement of 2nd stage.

Start the partograph to help monitor progress of labour,

Record her vitals alongside the fetal heart rate.

Put mother on IV fluids as necessary and monitor her progress of contractions together with FHR and condition continuously

Encourage the mother to Lamaze and apply the techniques of pain relief when contracting.

Advise the mother to lie left lateral as when not in contraction to save energy for 2nd stage.

b. State 5 temporary structures of fetal circulation.

- Foramen ovale
- Ductus arteriosus
- Ductus venosus

- The umbilical vein,
 - Hypogastric arteries.
- c. Briefly describe the 1st examination of a newborn.
Examine the general appearance of the color to detect any abnormality, check breathing/airway, the pulse rate, and examine the baby's response to stimuli, the baby's activity if it moves limbs or cries with energy, thumb sucking and also examine the baby's respiration, within 15 minutes. Check for any abnormal body formations or deformities, weigh the baby and observe the crying.
18. Mrs. P has come to MCH/FP for antenatal care 1st visit. She is 25 years old and married to an amateur driver. She is a housewife and they have a small shamba. Her last menstrual period was on 20/02/2015.
- a. What was her expected date of delivery? Show the calculations.
Add 7 days to date of Imp, 27/02/2015
Sub. 3 to month 27/11/2015
Add 1 yrs. to years (when appropriate) - 2015
27/11/2015
- b. What is her maturity by date today? Show your calculations.
➤
- c. State the level at which the uterine fundus can be palpated at this visit.
- Approximately halfway between the symphysis pubis and the umbilicus
 - At 16 weeks, the fundus can be found approximately halfway between the symphysis pubis and the umbilicus.
 - At 20 to 22 weeks, the fundus is approximately at the location of the umbilicus.
 - At 36 weeks, the fundus is at the xiphoid process.
- d. Explain the histories you would take from her.
- Take on Obstetric history on parity and gravidity
 - Family history of illness
 - Any presenting reactions and allergies
 - History of hospital admission
 - Blood grouping and Rhesus factor
- Obtain personal, obstetric and medical history.
 - Confirm pregnancy and EDD, classify women for basic ANC (four visits) or more specialized care.
 - Complete general and obstetrical examination.
 - Screen / test / treat: anaemia, Syphilis, HIV, Proteinuria, Blood/Rh group, bacteriuria
 - Give tetanus toxoid as required and iron and folic acid
 - Health education including safe sex, sleeping under ITN, birth and emergency plan.
 - If >16 weeks, give anti-malarial treatment and Mebendazole.
19. State 4 types of jaundice newborns are likely to present.
- Physiological jaundice**- yellowing of the skin, or jaundice.
- Breastfeeding jaundice** is seen in breastfed babies during the first week of life. It is more likely to occur when babies do not nurse well or the mother's milk is slow to come, leading to dehydration
- Breast milk jaundice** may appear in some healthy, breastfed babies after day 7 of life. The problem may be due to how substances in the breast milk affect the breakdown of bilirubin in the liver.
20. Explain six predisposing causes of babies at risk.

21. Explain how you would manage a newborn unit where neonates at risk are nursed.

22. Baby Jones born at 36 weeks gestation weighed 2100grams and is admitted in the newborn unit (NBU):

a. State 5 predisposing factors to prematurity.

- Chronic health conditions, such as [diabetes](#) or infections.
- Drug or alcohol abuse.
- Multiple pregnancies, such as twins or triplets.
- [Preeclampsia](#) (high blood pressure during pregnancy).
- Problems with their uterus or cervix.
- Too little time (less than 18 months) between pregnancies.
- Vaginal bleeding or infections during pregnancy.

b. State 6 characteristics of a preterm baby.

Small size, with a disproportionately large head. Sharper looking, less rounded features than a full-term baby's features, due to a lack of fat stores. Fine hair (lanugo) covering much of the body. Low body temperature, especially immediately after birth in the delivery room, due to a lack of stored body fat.

c. State 5 complications baby Jones may develop if proper nursing interventions are not done:

Some of the most common health conditions that affect premature babies are:

- [Apnea of prematurity](#), or temporary pauses in breathing during sleep.
- [Bronchopulmonary dysplasia](#), or underdeveloped lungs.
- [Intraventricular hemorrhage](#), or bleeding in the brain.
- [Necrotizing enterocolitis](#), or inflammation of the intestines.
- [Neonatal sepsis](#), or blood infection.
- [Patent ductus arteriosus \(PDA\)](#), or abnormal blood flow in the heart.
- [Retinopathy of prematurity](#), or underdeveloped blood vessels in the eye.

Premature babies are also at a higher risk of developmental challenges. They may have health issues later in life, including:

- [Cerebral palsy](#).
- Hearing and vision problems.
- Learning disabilities.
- Poor growth.

d. Describe management of baby Jones in the newborn unit in the first 48 hours.

Put Baby On O2,

Fix The GIT For Feeding

Monitor The Vitals Regularly

Provide Warmth To Meet The Body Temperature Requirement.

23. Explain 5 injuries that may be found in the head of a newborn baby.

1. **Bone injuries**

Bones may be broken (fractured) before or during delivery even when the delivery is normal.

2. **Injuries to the skin and soft tissues**

The new-born's skin may have minor injuries after delivery, especially areas that receive pressure during contractions or that first emerge from the birth canal during delivery

3. **Perinatal asphyxia**

Perinatal asphyxia is a decrease in blood flow to the baby's tissues or a decrease in oxygen in the baby's blood before, during, or just after delivery. Caused by

- Separation of the placenta from the uterus before delivery ([placental abruption](#))
 - Obstruction of umbilical cord blood flow
 - Abnormal development of the foetus (for example, when there is a genetic abnormality)
 - Severe infection in the foetus
 - Exposure to certain drugs before birth
 - Severe maternal haemorrhage
 - Severe maternal illness
4. **Nerve injuries may occur before or during delivery.** These injuries usually cause weakness of the muscles controlled by the affected nerve. Nerve injuries may involve the
- Facial nerve: Lopsided facial expression
 - Brachial plexus: Arm and/or hand weakness
 - Phrenic nerve: Difficulty breathing
 - Spinal cord (rare): Paralysis
5. **Head injury is the most common birth-related injury.** Head moulding is not an injury. Moulding refers to the normal change in shape of the baby's head that results from pressure on the head during delivery.
6. **Bleeding in and around the brain** Bleeding in and around the brain (intracranial haemorrhage) is caused by the rupture of blood vessels and may be caused by
- Birth injury
 - Significant illness in the new-born that decreases delivery of blood or oxygen to the brain
 - A blood clotting problem

24. State 4 types of jaundice.

Pre-hepatic jaundice is caused by conditions that heighten your blood's rate of hemolysis. This is the process through which red blood cells are broken down, releasing hemoglobin and converting into bilirubin. Causes include Malaria, sickle cell anemia etc

Hepatic jaundice happens when your liver tissue is scarred (known as [cirrhosis](#)), damaged, or dysfunctional. This makes it less effective at filtering out bilirubin from your blood. Causes include liver cirrhosis, viral hepatitis, liver hepatitis.

Post-hepatic, or obstructive jaundice, happens when bilirubin can't be drained properly into the bile ducts or digestive tract because of a blockage. Caused by gallstones, pancreatic cancer, bile duct cancer.

Neonatal jaundice is a common type of jaundice that happens to newborn babies.

Most babies are born with a lot of red blood cells, and because the liver isn't fully developed yet, bilirubin can't be processed quickly. As a result, your child may have jaundice symptoms a few days after they're born.

Types of neonatal jaundice include:

- **Physiological** This happens because the liver isn't fully formed yet.

- **Prematurity.** This results from a baby being born too early and being unable to poop out bilirubin properly.
- **Breastfeeding.** Breast milk jaundice occurs from a baby having trouble breastfeeding or not getting enough breast milk.
- **Incompatible blood type.** This results from a baby and mother having different blood types, which can cause the mother to make antibodies that break down her baby's red blood cells.

25. State the 3 things you do to check airway and breathing of an asphyxiated baby.

Put the baby on ventilation

Suction the nasal and oral secretion by suction pump

Check the pulse rate

26. State 3 things signs of severe respiratory distress syndrome.

- Shortness of breath
- Fast breathing, or taking lots of rapid, shallow breaths
- Fast heart rate
- Coughing that produces phlegm
- Blue fingernails or blue tone to the skin or lips
- Fatigue
- Fever
- Crackling sound in the lungs
- Chest pain, especially when trying to breathe deeply
- Low blood pressure
- Confusion

27. State 4 principles of management of a baby with intracranial injury.

28. State 5 predisposing factors to ophthalmia neonatorum.

- Maternal infections harboured in the mother's birth canal.
- HIV infected mothers.
- Exposure of the infant to infectious organisms.
- Premature rupture of membranes (PROM)
- Inadequacy of ocular prophylaxis after birth.
- Silver nitrate exposure.
- Ocular trauma during delivery.
- Mechanical ventilation.

29. Baby Junior, born at term with birth weight of 3.2kg and score 9/1, 10/10 is diagnosed with jaundice on the second day of delivery.

a. Explain 3 causes of physiological jaundice.

Physiologic jaundice is caused by a **combination of**

- Increased bilirubin production secondary to accelerated destruction of erythrocytes,
- Decreased excretory capacity secondary to low levels of ligandin in hepatocytes,
- Low activity of the bilirubin-conjugating enzyme

b. Describe the specific management of baby Junior until jaundice clears.

- Mild jaundice will usually resolve on its own as a baby's liver begins to mature. Frequent feedings (between 8 to 12 times a day) will help babies pass bilirubin through their bodies.
- More severe jaundice may require other treatments. Phototherapy is a common and highly effective method of treatment that uses light to break down bilirubin in your baby's body.
- In phototherapy, your baby will be placed on a special bed under a blue spectrum light while wearing only a diaper and special protective goggles. A fiber-optic blanket may also be placed underneath your baby.
- In very severe cases, an exchange transfusion may be necessary in which a baby receives small amounts of blood from a donor or a blood bank.
- This replaces the baby's damaged blood with healthy red blood cells. This also increases the baby's red blood cell count and reduces bilirubin levels.

30. List 6 causes of ante partum haemorrhage.

1. Intra-uterine injury
2. Multi parity
3. Multiple pregnancies
4. Previous APH
5. Previous termination of pregnancy
6. Placenta Previa and abrasion
7. Advanced maternal age.
8. Previous caesarian section

31. Define obstetric shock.

Shock from acute, generalized, inadequate perfusion of tissues; below that needed to deliver the oxygen and nutrients for normal function.

32. Differentiate between puerperal sepsis and puerperal infection.

Puerperal sepsis is an infective condition in the mother following childbirth

A puerperal infection occurs when bacteria infect the uterus and surrounding areas after a woman gives birth. It's also known as a postpartum infection.

34.

i) Define amniotic fluid embolism.

Condition that occurs when amniotic fluid or fetal material, such as fetal cells, enters the mother's bloodstream during delivery or in the immediate postpartum period.

SIGNS AND SYMPTOMS

- Sudden shortness of breath
- Excess fluid in the lungs (pulmonary edema)
- Sudden low blood pressure
- Sudden failure of the heart to effectively pump blood (cardiovascular collapse)
- Life-threatening problems with blood clotting (intravascular coagulopathy)
- Bleeding from the uterus, cesarean incision or intravenous (IV) sites
- Altered mental status, such as anxiety or a sense of doom
- Chills
- Rapid heart rate or disturbances in the rhythm of the heart rate
- Fetal distress, such as a slow heart rate, or other fetal heart rate abnormalities
- Seizures
- Loss of consciousness

- ii) Explain the management of a mother who has just delivered and has been diagnosed with amniotic fluid embolism.

Emergency treatments might include:

- **Catheter placement.** A thin, hollow tube placed into one of your arteries (arterial catheter) might be used to monitor your blood pressure. You might also have another tube placed into a vein in your chest (central venous catheter), which can be used to give fluids, medications or transfusions, as well as draw blood.
- **Oxygen.** You might need to have a breathing tube inserted into your airway to help you breathe.
- **Medications.** Your doctor might give you medications to improve and support your heart function. Other medications might be used to decrease the pressure caused by fluid going into your heart and lungs.
- **Transfusions.** If you have uncontrollable bleeding, you'll need transfusions of blood, blood products and replacement fluids.

If you have amniotic fluid embolism before delivering your baby, your doctor will treat you with the goal of safely delivering your baby as soon as possible. An emergency C-section might be needed.

35. Differentiate between fetal distress and maternal distress.

Fetal distress is a condition that the baby isn't coping with labour by not receiving enough oxygen through the placenta.

Maternal distress is when a mother is emotionally unbalanced during pregnancy, as a response to pregnancy or non-pregnancy related issues manifested by different signs and symptoms of psychological distress.

36. Define fibrinogenemia.

An increased level of fibrinogen in the blood.

37. Miss Jane has been admitted in labor ward with a history of prolonged labor:

- a. State 4 causes of prolonged labor.

- Slow cervical dilations.
- Slow effacement.
- A large baby.
- A small birth canal or pelvis.
- Delivery of multiple babies.
- Emotional factors, such as worry, stress, and fear.

- b. Explain briefly the management of prolonged labor.

- Put the mother on IV Fluids and Oxygen when necessary
- artificial rupture of membranes, also called amniotomy,
- augmentation of labour with oxytocin
- recommend or perform C/S if there is strong prove of pelvis inadequacy

Social Anthropology:

1. Define the following terms as used in social anthropology:

- a. Incest taboo. - Are sexual behaviors between members of the same family that are absolutely forbidden by a certain culture
- b. Culture. - The totality of socially transmitted behaviour patterns, arts, beliefs, institutions, and all other products of human work and thought.

- c. Social stratification. -a process ranking members of society according to wealth, prestige and power.
- d. Polyandry. -marriage of two or more men to one woman e.g. Ashanti in Ghana
2. Explain 3 characteristics of culture.
 - a. It is learned - It is a body of learnt values, beliefs, and behavior expectations derive from those we interact with.
 - b. It is shared - as a result of belonging to some particular group. And behavior which is shared with others
 - c. It is an adaptation - behavior acquired and transmitted from one generation to the other.
 - d. It is a dynamic system changing constantly whereby different cultural behaviours are changing every now and then.
3. Describe 5 social functions of religious institutions.
 - a. Group integration -religious beliefs provide a basis for people to unite together
 - b. Social control- religion clearly states what is right and what is wrong.
 - c. The control of stress -religion help the believers to accept and bear pain or agony, etc
 - d. Humanitarian function- service for those in need e.g. hospitals, orphanages, homes for the aged and the handicapped schools
4. Evolution of society from primitive to become modern and industrialized leads to many health and social challenges.
 - a. Define the terms social change. - Social change is the transformation of culture and social institutions over time.
 - b. Describe the social health effects of rural to urban migration of population.
Due to innovations in the provision of health care such as vaccines, availability of drugs, increase in the number of health workers and health care facilities, mortality rate has decreased. Also, social change brought about by population increase leads to cumulative effects of:
 - Inadequate and hazardous shelter
 - Overcrowding
 - Lack of water supply and sanitation
 - Unsafe food
 - Air and water pollution
 - High accident rates
 - c. State 3 health related benefits of using modern farming technology.
 1. Reduced cases of waterborne diseases in the farming of rice
 2. Leads to continuous supply of food supply to meet the rising demand. Achieved through greenhouse farming
 3. Creation of employment to qualified machine operators and increased demand for research and education.
 4. Increased production due to efficiency in work output
5. Define the following terms:
 - a. Culture - The totality of socially transmitted behaviour patterns, arts, beliefs, institutions, and all other products of human work and thought.
 - b. Social group- is two or more humans who interact with one another, share similar characteristics, and collectively have a sense of unity
 - c. Urban drift- is the growth of urban areas due to migration or urban increase
 - d. Ethnocentrism- it is the ethnic or cultural bias either conscious or unconscious
 - e. Society- a group of people who interact together, within a specified territory and have a unique culture,
6. Differentiate the following terms:
 - a. Sociology and anthropology
Sociology is the study of social life, change and consequences of human behaviour. While anthropology is the scientific study of human culture in different types of societies
 - b. Formal and informal education.....
Formal education is acquired through formally established institutions of learning
Informal education takes place in informal places, for example, the work place, recreational place, among peer groups, in the church or other religious settings
 - c. Nuclear and extended family.....
Nuclear or conjugal is composed of a husband, wife and their immediate off springs - natural, adopted or both

Extended family or consanguine- the nuclear family and other related persons (by blood) These are “kin” - grandparents, aunts, uncles and cousins

d. Nonmaterial and material culture.....

Non-material culture - these are things that are observed through the behaviour of societal members. – language, norms, mores, laws

Material culture - these are the physical things in society. - clothing & ornaments, buildings, vehicles, plots, industries and other infrastructure.

e. Polygyny and polyandry.....

Polygyny - marriage of two or more women to one man

Polyandry - marriage of two or more men to one woman

7. Explain 5 functions of the family in the provision of healthcare.

Provision of basic needs to all family members to keep them healthy

Care of socio-emotional needs of its members, thus contributing to health

Protecting the minor in the best upbringing ways to prevent contact with microorganisms

Civic education on sexual behaviour that might lead to HIV transmission

Practising good hygiene that is a preventive measure to many of disease causing microorganisms

Proper ways of waste disposal in the environment

8. State 5 characteristics of a society.

They share the same territory

They have a unique culture

They live together

They interact with each other

9.

a. Define social change.

This is the transformation of culture and behavior of a society over time.

b. Explain 2 social changes affecting health.

Population

Industrialization

Technology

c. List 6 types of change agents.

- Internal change agent. ...
- External change agent. ...
- Identify your allies. ...
- Co-create the vision. ...
- Get everyone on the same page. ...
- Create a track record. ...
- Make the change a normal process.

d. Using the 7 doors model, explain the basic steps of implementing change.



10. State 4 social institutions which perform functions of secondary socialization.

- Family
- Marriage
- Religion
- Politics
- Education

11. Explain 4 characteristics of culture.

- It is learned
- It is shared
- It is an adaptation
- It is a dynamic system changing constantly

12. State 3 types of kinship relationships.

- Lineal,
- Collateral,
- Affinal.

13. State 5 functions of family.

Moral support to relieve stress and pressure on its individual members
 Offers peer education on sexual morality
 Gives a sense of belonging
 Offers protection to its young members
 Provision of basic needs to its constituent members
 Procreation purposes to keep the lineage
 The provision of leisure and recreation for family members

14. Religion is a system in which individuals have beliefs and practices relative to sacred things:

a. State 3 types of religious beliefs.

- Christians
- Muslims
- Hinduism
- Atheists

- Free marson
- b. Describe the function of religion in relation to promotion of health.
 - Educating members of the religion on importance of family planning and blood transfusion
 - Embracing healthy behaviors such as shunning FGM
 - Condemning sexual sins that brings about STI and
 - Engaging in humanitarian activities like building hospitals and schools for their members and society at large.
 - Practicing safe ways of conserving environment and avoid ignorance.
 - Participating in health promotion campaigns .
 - c. Explain your role as a nurse working in ward in a busy hospital in ensuring that your patients enjoy the benefits of religion while in hospital.
 - Allow the patient to pray with their religious members on visiting with a limited number.
 - The nurse must recognize, assess and plan for spiritual needs of the patient.
 - In case of death, ensure their religious customs are followed to the latter as for the case of muslims, not to delay body discharge
 - Advise the patient and encourage them to limit their ideology and religious beliefs to help in nursing them.
 -
15. State 4 components of culture.
 - Non-material culture - these are things that are observed through the behaviour of societal members. – language, norms, mores, laws
 - Material culture - these are the physical things in society.-clothing & ornaments
 16. List 6 main sources of social change.
 - Population growth and composition,
 - Culture
 - Technology,
 - The natural environment,
 - Social conflict.
 17. State 5 agents of socialization.
 - The family (comprises of the immediate or extended members to the family)
 - The neighbors
 - Schools and other institutions (church, schools, mosques and other social institutions)
 - Peer groups (play group, school mates and friends they associate with daily)
 - Electronic and printed media (Books, computers, internet etc)
 18. State 4 effects of over-urbanization on the family.
 - Loss of cultural heritage
 - Assimilation of other cultures that might or might not be acceptable by their original families
 - Pollution of environment to water, air and soil.
 - Unhealthy foods and overdependence to technology
 - Good schooling system and medical services availability due to plenty of facilities
 - Employment increase due to industrialization as a positive effect.
 - Overpopulation as a negative effect.
 19. Conflicts are common in places of work as we meet community health needs:
 - a. Define a conflict.

It is a strong disagreement between two people with a varied opinion, idea and facts about a common subject
 - b. State 3 benefits of conflicts.
 - It adds new perspectives. In order to generate new ideas and innovation, you need human interaction, conflict, argument, and debate. ...
 - We can verbalize better. ...
 - It teaches us to listen. ...
 - It hones communication skills. ...

- Provides us with patterns of predictability. ...
 - It improves relationships.
- c. State 4 disadvantages of conflicts.
- Cause stressful working relationships
 - Are time-consuming and costly for companies.
 - They expose the weaknesses of an institution
 - Decreased productivity—can have serious consequences for a business.
 - Unresolved or poorly handled conflicts can lead to low morale in business and any other type of organization.
 - A conflict results in heated arguments, physical abuses and definitely loss of peace and harmony. A conflict can actually change relationships.
- d. Describe ways of reducing conflicts in our places of work.
- Communication. One of the most common causes of workplace conflict is either the lack of or poor communication. ...
 - Stop avoiding it. ...
 - Set a formal complaint process. ...
 - Create an environment that promotes collaboration. ...
 - Ensure everyone is treated fairly.
- e. List 4 types of conflicts.
- Verbal conflict,
 - Religious conflict,
 - Emotional conflict,
 - Social conflict,
 - Personal conflict,
 - Organizational conflict,
 - Community conflict
20. Define the following terms as used in social anthropology:
- a. Sanctions.
A threatened penalty for disobeying a law or rule.
- b. Status.
Status can be defined as any position within the stratification system that an individual occupies
- c. Social stratification.
Process ranking members of society according to wealth, prestige and power.
- d. Culture.
The totality of socially transmitted behaviour patterns, arts, beliefs, institutions, and all other products of human work and thought.
21. Explain 4 important social functions of educational institutions.
- Social integration- binds community together,
 - Custodial functions. Care of youngsters
 - Preparation of children for future responsibilities . E.g. careers
 - Transmission of skills and knowledge , medical schools
 - Transmission of values, attitudes, and behavior from one generation to another
22. State 3 leadership styles used by the government to maintain social order.

- a. Authoritarian
- b. Democratic- participative
- c. Laissez-faire- delegative, free reign

23. What are the functions of government to its citizen?

- Protecting the constitution
- Maintenance of social order by enacting laws
- Co- ordination of essential services for the smooth functioning of the society.
- Protecting citizens from enemies either from other countries or rebels within the society

KENYA MEDICAL TRAINING COLLEGE--
END OF SEMESTER
EXAMS HUMAN ANATOMY & PHYSIOLOGY
APER

INSTRUCTIONS

1. Write your examination number on each sheet of paper used
2. For part I, MCQs, circle in ink the correct response
3. All questions are compulsory
4. Omission of or wrong numbering of examination paper, question or part for the question will result in 10% deduction of marks scored from the relevant part
5. MOBILE PHONES are not allowed in the examination hall

PART I: MCQ's

1. The most fundamental structural level of the body is:
 - a) Chemical
 - b) Molecular
 - c) Atom
 - d) Biochemical
2. The structure that is made up of a number of different types of tissue is:
 - a) A cell
 - b) A tissue
 - c) An organ
 - d) Organelles
3. The water-based medium in which the body cells exist is the:
 - a) External environment
 - b) Internal environment.
 - c) None of the above.
 - d) All the above (a) and (b)
4. The fluid that surrounds and bathes human cells is:
 - a) Extracellular fluid
 - b) Plasma globulin
 - c) Interstitial fluid
 - d) Blood
5. The membrane which encloses the cell as well as provide a potential barrier to substances entering and/or leaving the cell is:
 - a) Cytoplasm
 - b) Cell wall
 - c) Cell membrane
 - d) Plasma membrane
6. The mechanism that controls the body's internal environment within narrow limits is:

- a) Positive feedback mechanisms
 - b) Negative feedback mechanisms
 - c) Nervous and endocrine systems
 - d) Homeostasis
7. The tiny walled blood vessel that consists of one layer of cells is:
- a) Arteries
 - b) Capillaries
 - c) Venuoles
 - d) Arterioles
8. The system that provides the sites for the formation and maturation of lymphocytes and white blood cells is:
- a) Reticuloendothelial system
 - b) Lymphatic system
 - c) The bone marrow
 - d) Circulatory system
9. The system that transmits signals from the body to the brain is:
- a) The nervous system
 - b) The sensory or afferent
 - c) The motor or efferent nerves
 - d) The somatic senses
10. Nerves communicate to each other by release of:
- a) A catalyst
 - b) Neurotransmitter
 - c) Reflex action
 - d) Sensory impulses
11. A system that consists of a number of discrete glands situated in different parts of the body is:
- a) Endocrine system
 - b) Lymphatic system
 - c) Body's defense mechanisms
 - d) Reticuloendothelial system
12. Reflex action is basically for the body's:
- a) Defense mechanism
 - b) Protective mechanism
 - c) Facilitation of rapid movement
 - d) Interaction with nervous activity
13. Changes in the blood hormonal levels are normally controlled by:
- a) Positive feedback mechanism
 - b) Negative feedback mechanism
 - c) Positive and negative mechanism
 - d) Negative mechanisms

14. A gas that is necessary for a series of chemical reactions that result in the release of energy from nutrients:
 - a) Oxygen
 - b) Carbon dioxide
 - c) Nitrogen
 - d) Hydrogen
15. Food component used in cell building, growth and repair is:
 - a) Fats
 - b) Carbohydrates
 - c) Proteins
 - d) Micronutrients
16. Atrial natriuretic hormone is produced by:
 - a) Endocrine gland
 - b) Kidney
 - c) Heart
 - d) Pituitary gland
17. Blood entering the liver must first pass through:
 - a) Common iliac vein
 - b) Mesenteric vein
 - c) Portal circulation
 - d) Inferior vena cava
18. Nerves originating in muscles and joints for maintenance of balance, posture and stability are:
 - a) Proprioceptors
 - b) Motor senses
 - c) Somatic cutaneous senses
 - d) Autonomic afferent nerves
19. Muscles that are involved in difficult or deep breathing are:
 - a) The diaphragm and abdominal muscles
 - b) Intercostal muscles
 - c) Neck, shoulder and abdominal muscles
 - d) Intercostals and diaphragmatic muscles
20. The area of the brain involved with comprehension, intelligence and understanding of languages is:
 - a) Premotor area
 - b) Wernicke's area
 - c) Prefrontal area
 - d) Broca's

area PART II: SAQ's

1. State the four (4) functions of the cerebrospinal fluid
 - Supports and protects the brain and spinal cord by maintaining a uniform pressure.
 - Acts as a shock absorber or cushion between the brain and the skull.
 - Keeps the brain and spinal cord moist and there may be exchange of nutrients and waste products.
 - Nourishes the brain

2. State three (3) functions of reticular formation (3mks)
- Role in sleep and wakefulness,
 - Influences circadian rhythm
 - Influences visceral functions
 - Modulates afferent actions and transmissions
 - Influences endocrine secretion
 - Controls muscle tone.
3. State three (3) different types of joints
- Fibrous joint
 - Synovial joint
 - Cartilaginous joint
4. State four (4) functions of bones
- For support and movement
 - Muscle attachment
 - Storage of calcium
 - Gives the body its shape
 - Protection of vital organs
5. State five (5) constituents of plasma
- Mineral salts
 - Water
 - Immunoglobulins
 - Clotting factors and fibrinogen
 - Lipids and fats

KENYA MEDICAL TRAINING COLLEGE –
REVISIONWORK
HUMANANATOMY&PHYSIOLOGY

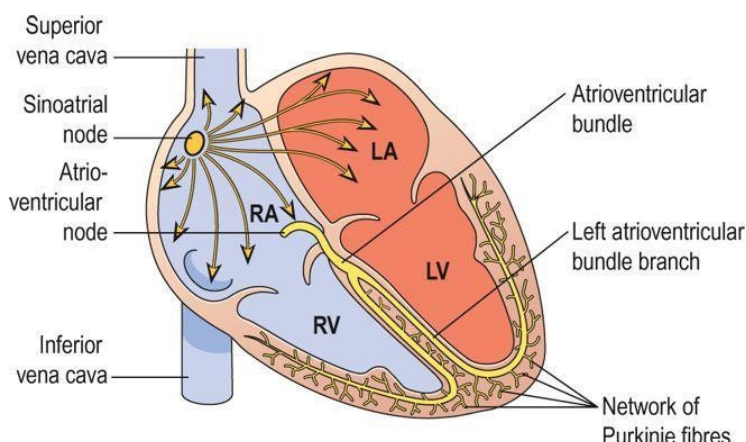
1. The water-based medium of the body is:-
☞ [Internal environment.](#)
2. The body temperature is a physiological variable:-
☞ [The negative feedback mechanism.](#)
3. The mechanism that facilitates body cells to receive nutrients and oxygen:-
☞ [The blood and circulatory system.](#)
4. Homeostasis can be defined as:-
☞ [A dynamic and ever-changing state of the body which is kept within narrow limits.](#)
5. The term used for the sum total of the body's chemical activity is:-
☞ [Metabolism.](#)
6. A chemical substance consisting of the same type of atoms is:-
☞ [Element.](#)
7. A waste product which dissolves in body fluid to make it acidic to maintain the body's pH within normal body ranges is:-
☞ [Carbon dioxide.](#)
8. An example of the body's non-specific defense mechanism is:-
☞ [The skin.](#)
9. The study of body structure and its physical relationship of body systems is:-
☞ [Anatomy.](#)
10. A substance that maintains normal body pH by preventing dramatic changes in blood value is:-
☞ [Buffer.](#)
11. The measure of the acidity of a solution is determined by:-
☞ [Hydrogen ions.](#)
12. Substances that cross semi-permeable membrane down its concentration gradient without use of energy, the process involved is:-
☞ [Passive transport.](#)
13. Complex carbohydrates that form important biological molecules are:-
☞ [Polysaccharides.](#)
14. Groups of tissues found covering body lining cavities and hollow organs and tubes are:-
☞ [Epithelial tissues.](#)
15. The largest cavity in the body that is oval in shape is:-
☞ [Abdominal cavity.](#)
16. Red blood cells develop from:-
☞ [Pluripotent stem cells.](#)
17. The exchange of nutrients and gases takes place at:-
☞ [Capillary bed.](#)
18. Lymphatic duct that drains lymph from the right half of the thorax, head, neck and right arm is:-
☞ [Right lymphatic duct.](#)
19. Transmission of the nerve impulses during action potential occurs due to:-
☞ [Movement of Sodium, Potassium and Calcium ions across the nerve cell membrane.](#)
20. Sympathetic nerve fibres have axons of cells in:-
☞ [White matter.](#)
21. State the properties of the neurons.
☞ [Conductivity. – Carries impulses towards and from the central nervous system](#)
☞ [Irritability/excitability. – ability to generate an impulse](#)
22. List six main arteries which form the circle of Willis (Circle of Willis)
☞ [Basilar artery.](#)

- Internal carotid artery.
 - Anterior communicating artery.
 - Posterior communicating artery.
 - Anterior cerebral arteries.
 - Posterior cerebral arteries.
23. State the three distinct parts of the human ear.
- Outer ear. (auricle & external acoustic meatus.)
 - Middle ear. (Malleus, Incus and Stapes)
 - Inner ear. (semicircular canal, vestibulocochlear and cochlear)
24. State the three types of nerves.
- Sensory or afferent nerves.
 - Motor or efferent nerves.
 - Mixed nerves.
25. Explain the three functions of the cerebral cortex.
- Mental activities like thinking and reasoning.
 - Sensory perception like pain and temperature.
 - Initiation and control of skeletal muscle contraction and voluntary movement.
26. Explain the four functions of the cerebro-spinal fluid (CSF).
- Supports and protects the brain and spinal cord to maintain uniform pressure.
 - Cushioning or shock absorber between the brain and the skull.
 - Keeps brain and spinal cord moist hence exchange of nutrients and waste products between CSF and cells.
 - Acts as a conduction medium for neurons.
 - Nourishes the brain and its cells
27. State the composition of blood plasma.
- Plasma proteins.
 - Inorganic compounds.
 - Gases (oxygen).
 - Nutrients.
 - Waste materials (urea)
 - immunoglobulins

28. With the aid of a well-labeled diagram of the heart, explain the conducting system of the heart.

REVISION QUESTIONS SEM1- EDITION 1

2018



The heart possesses the property of *auto rhythmicity*, which means it generates its own electrical impulses and beats independently of nervous or hormonal control, i.e. it is not reliant on external mechanisms to initiate each heartbeat. However, it is supplied with both sympathetic and parasympathetic autonomic nerve fibres, which increase and decrease

respectively the intrinsic heart rate. In addition, the heart responds to a number of circulating hormones, including adrenaline (epinephrine) and thyroxine. Small groups of specialized neuromuscular cells in the myocardium initiate and conduct impulses, causing coordinated and synchronized contraction of the heart muscle.

Sinoatrial node (SA node)

This small mass of specialized cells lies in the wall of the right atrium near the opening of the superior vena cava.

The sinoatrial cells generate these regular impulses because they are electrically unstable. This instability leads them to discharge (*depolarize*) regularly, usually between 60 and 80 times a minute.

This depolarization is followed by recovery (*repolarization*), but almost immediately their instability leads them to discharge again, setting the heart rate. Because the SA node discharges faster than any other part of the heart, it normally sets the heart rate and is called the *pacemaker* of the heart. Firing of the SA node triggers atrial contraction.

Atrioventricular node (AV node)

This small mass of neuromuscular tissue is situated in the wall of the atrial septum near the atrioventricular valves. Normally, the AV node merely transmits the electrical signals from the atria into the ventricles. There is a delay here; the electrical signal takes 0.1 of a second to pass through into the ventricles. This allows the atria to finish contracting before the ventricles start. The AV node also has a secondary pacemaker function and takes over this role if there is a problem with the SA node itself, or with the transmission of impulses from the atria. Its intrinsic firing rate, however, is slower than that set by the SA node (40–60 bpm).

Atrioventricular bundle (AV bundle or bundle of His)

This is a mass of specialised fibres that originate from the AV node. The AV bundle crosses the fibrous ring that separates atria and ventricles then, at the upper end of the ventricular septum, it divides into *right* and *left bundle branches*. Within the ventricular myocardium the branches break up into fine fibres, called the *Purkinje fibres*. The AV bundle, bundle branches and Purkinje fibres transmit electrical impulses from the AV node to the apex of the myocardium where the wave of ventricular contraction begins, then sweep upwards and outwards, pumping blood into the pulmonary artery and the aorta.

29. Explain the physiology of hearing.

Every sound produces sound waves or vibrations in the air, which travel at about 332 meters per second.

The auricle, because of its shape, collects and concentrates the waves and directs them along the auditory canal causing the tympanic membrane to vibrate. Tympanic membrane vibrations are transmitted and amplified through the middle ear by movement of the ossicles. At their medial end the footplate of the stapes rocks to and fro in the oval window, setting up fluid waves in the perilymph of the scala vestibuli. Some of the force of these waves is transmitted along the length of the scala vestibuli and scala tympani, but most of the pressure is transmitted into the cochlear duct. This causes a corresponding wave motion in the endolymph, resulting in vibration of the basilar membrane and stimulation of the auditory receptors in the hair cells of the spiral organ. The nerve impulses generated pass to the brain in the cochlear (auditory) portion of the vestibulocochlear nerve (8th cranial nerve). The fluid wave is finally expended in the middle ear by vibration of the membrane of the round window. The vestibulocochlear nerve transmits the impulses to the auditory nuclei in the medulla, where they synapse before they are conducted to the auditory area in the temporal lobe of the cerebrum. Because some fibres cross over in the medulla and others remain on the same side, the left and right auditory areas of the cerebrum receive impulses from both ears.

Sound waves have the properties of *pitch* and *loudness*, or intensity. Pitch is determined by the frequency of the sound waves and is measured in Hertz (Hz). Sounds of different

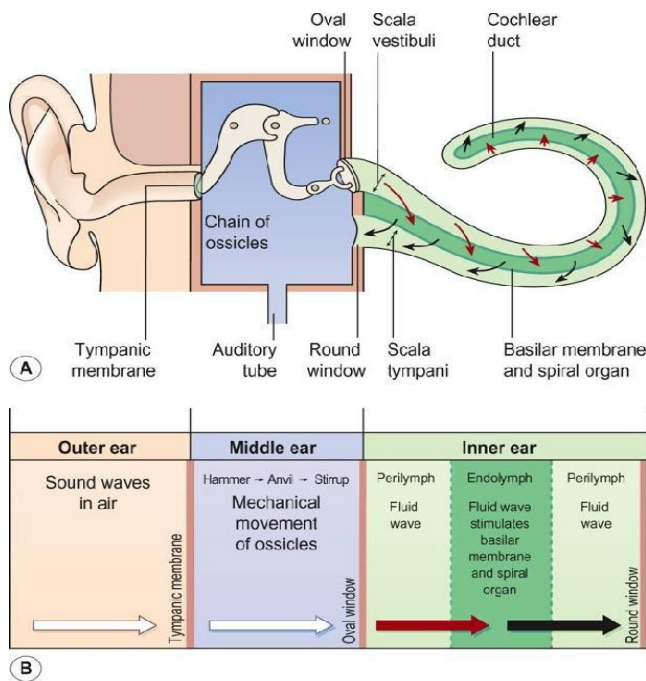
frequencies stimulate the basilar membrane at different places along its length, allowing discrimination of pitch.

The volume depends on the magnitude of the sound waves and is measured in decibels (dB). The greater the amplitude of the wave created in the endolymph, the greater is the stimulation of the auditory receptors in the hair cells in the spiral organ, enabling perception of volume.

Long-term exposure to very loud noise causes hearing loss because it damages the sensitive hair cells of the spiral organ.

REVISION QUESTIONS SEM1- EDITION 1

2018



30. Factors which would determine blood pressure.

- Ⓜ Cardiac output – determined by stroke volume \times heart rate.
- Ⓜ Auto regulation – capability of blood organs to adjust blood flow and pressure independent of systemic blood pressure.
- Ⓜ Peripheral/Arteriolar resistance – arterioles have tunica media entirely composed of smooth muscle sensitive to nerve and chemicals. Vasoconstriction raises pressure while vasodilation causes it to fall.

31. Components of lymphatic system.

- Ⓜ Lymph.
- Ⓜ Lymph vessels.
- Ⓜ Bone marrow.
- Ⓜ Lymph nodes.
- Ⓜ Lymph organs e.g. spleen.
- Ⓜ Diffusely lymphoid tissue e.g. tonsils.

32. Functions of reticular formation.

Definition: - it is a collection of neurons in the core of the brain stem, surrounded by neural pathways that conduct ascending and descending impulses between the brain and spinal cord.

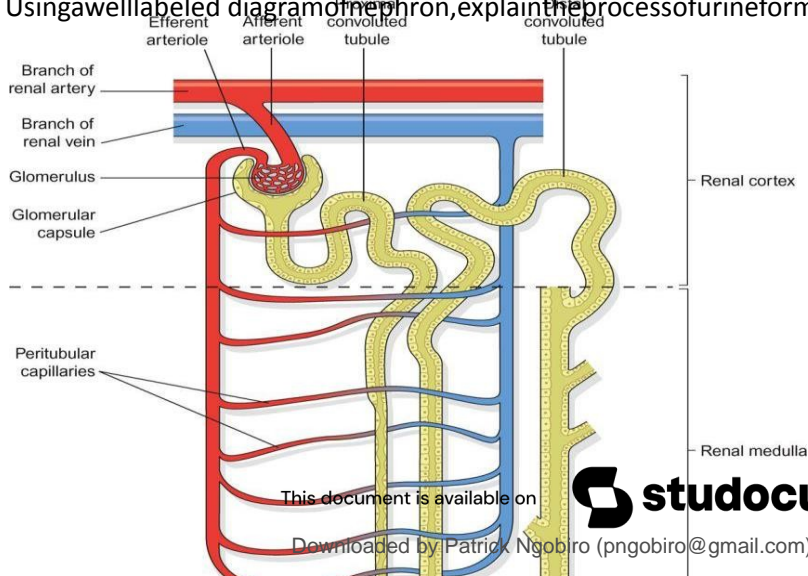
- ⌘ Coordination of skeletal muscle activity associated with voluntary motor movement and the maintenance of balance.
 - ⌘ Coordination of activity controlled by the autonomic nervous system e.g. CVS and GI activity.
 - ⌘ Selective awareness that functions through the reticular activating system (RAS) which selectively blocks or passes sensory information to the cerebral cortex.
33. Distinct parts of the ear.
- ⌘ Outer ear – consists of auricle (pinna), external acoustic meatus (auditory canal) and tympanic membrane.

REVISION QUESTIONS SEM1- EDITION 1

2018

- ⌘ Middle ear – auditory ossicles (malleus, incus and stapes), oval and round window.
 - ⌘ Inner ear – vestibule (utricle and saccule), 3 semicircular canals and cochlea.
34. Hormones produced by the anterior lobe of pituitary gland.
- ⌘ Growth hormones.
 - ⌘ Thyroid stimulating hormone.
 - ⌘ Adrenocorticotropic hormone.
 - ⌘ Gonadotrophin.
 - ⌘ Prolactin.
 - ⌘ Follicle Stimulating Hormone (FSH) and Luteinizing Hormone (LH) also known as Interstitial Cell Stimulating Hormone (ICSH)
35. Hormones produced by the posterior lobe of pituitary gland.
- ⌘ Oxytocin.
 - ⌘ Antidiuretic Hormone (ADH)
36. Mechanisms responsible for the control of respiration.
- ⌘ Respiratory center.
 - ⌘ Chemoreceptor – change in partial pressures of oxygen and carbon dioxide in blood and CSF.
 - ⌘ Exercise and respiration.
 - ⌘ Emotional displays.
37. Physiological variables affecting breathing.
- ⌘ Elasticity – ability to return to normal shape after breath.
 - ⌘ Compliance – stretch ability of lungs.
 - ⌘ Airway resistance.

38. Using a well-labeled diagram of a nephron, explain the process of urine formation:



Medullary loop
(Loop of Henle)

Collecting
duct

The nephron consists of a tubule closed at one end, the other end opening into a collecting tubule. The closed or blind end is indented to form the cup-shaped *glomerular capsule* (Bowman's capsule), which almost completely encloses a network of tiny arterial capillaries, the *glomerulus*. These resemble a coiled tuft and are shown above. Continuing from the glomerular capsule, the remainder of the nephron is about 3 cm long and is described in three parts:

- The proximal convoluted tubule.
- The medullary loop (loop of Henle)
- The distal convoluted tubule, leading into a collecting duct.

FILTRATION:

This takes place through the semipermeable walls of the glomerulus and glomerular capsule. Water and other small molecules pass through, although some are reabsorbed later. Blood cells, plasma proteins and other large molecules are too large to filter through and therefore remain in the capillaries. The filtrate in the glomerulus is very similar in composition to plasma with the important exception of plasma proteins and blood cells.

Filtration takes place because there is a difference between the blood pressure in the glomerulus and the pressure of the filtrate in the glomerular capsule. Because the efferent arteriole is narrower than the afferent arteriole, a *capillary hydrostatic pressure* of about 7.3 kPa (55 mmHg) builds up in the glomerulus. This pressure is opposed by the *osmotic pressure* of the blood, provided mainly by plasma proteins, about 4 kPa (30 mmHg), and by *filtrate hydrostatic pressure* of about 2 kPa (15 mmHg) in the glomerular capsule.

SELECTIVE REABSORPTION

Most reabsorption from the filtrate back into the blood takes place in the proximal convoluted tubule, whose walls are lined with microvilli to increase surface area for absorption. Materials essential to the body are reabsorbed here, including some water, electrolytes and organic nutrients such as glucose.

Some reabsorption is passive, but some substances are transported actively. Only 60–70% of filtrate reaches the loop of the nephron. Much of this, especially water, sodium and chloride, is reabsorbed in the loop, so only 15–20% of the original filtrate reaches the distal convoluted tubule, and the composition of the filtrate is now very different from its starting values.

More electrolytes are reabsorbed here, especially sodium, so the filtrate entering the collecting duct is actually quite dilute.

The main function of the collecting ducts therefore is to reabsorb as much water as the body needs.

Active transport takes place at carrier sites in the epithelial membrane, using chemical energy to transport substances against their concentration gradients.

Some ions, e.g. sodium and chloride, can be absorbed by both active and passive mechanisms depending on the site in the nephron.

TUBULAR SECRETION:

Filtration occurs as the blood flows through the glomerulus. Substances not required and foreign materials, e.g. drugs including penicillin and aspirin, may not be cleared from the blood by filtration because of the short time it remains in the glomerulus. Such substances are cleared by secretion from the peritubular capillaries into the convoluted tubules and excreted from the

body in the urine. Tubular **secretion** of hydrogen ions (H⁺) is important in maintaining normal blood pH.

39. Layers of tissues covering arteries and arterioles.
 - ☞ **Tunica adventitia** – fibrous tissue.
 - ☞ **Tunica media** – elastic and smooth muscle.
 - ☞ **Tunica intima** – squamous epithelium (lining).
40. Mechanisms which control blood pressure.
 - ☞ Short-term control involving baroreceptors (pressure receptors), chemoreceptor and higher centers of brain.
 - ☞ Long-term control effected by Renin-angiotensin-aldosterone system (RAAS) and ADH.
41. List the 8 arteries that form arteriosus (circulus arteriosus)
 - ☞ 1 basilar artery.
 - ☞ 2 posterior cerebral arteries.
 - ☞ 2 anterior cerebral arteries.
 - ☞ 1 anterior communicating artery.
 - ☞ 2 posterior communicating arteries.
 - ☞ 2 internal carotid arteries.
42. State the types of nerves.
 - ☞ Sensory nerves – from the body to spinal cord.
 - ☞ Motor nerves – from brain, spinal cord and autonomic ganglia to muscles and glands.
 - ☞ Mixed nerves – they are both sensory and motor
43. Layers of meninges.
 - ☞ Dura mater – outer layer (dense fibrous tissue) takes place of periosteum on the inner surface of skull bones and inner layer provides a protective covering of brain.
 - ☞ Arachnoid mater – passes over the convolutions of the brain and accompanies the inner layer of dura mater in the formation of falx cerebri, tentorium cerebelli and falx cerebelli.
 - ☞ Pia mater – contains many minute blood vessels. Adheres to the brain, completely covering convolutions and dipping into each fissure.
44. Hormones that influence selective reabsorption in the nephron.
 - ☞ Parathyroid hormone – calcium control where it rises level where calcitonin lowers it.
 - ☞ Antidiuretic hormone – increases permeability of distal convoluted tubules and collecting tubules increasing water reabsorption.
 - ☞ Aldosterone – increases reabsorption of water and sodium and excretion of potassium.
 - ☞ Atrial Natriuretic Peptide – lowers reabsorption of sodium and water from proximal convoluted tubules and collecting ducts.
45. Functions of the cerebral cortex.
 - ☞ Higher order functions i.e. mental activities involved in memory.
 - ☞ Sensory perception like pain.
 - ☞ Initiation and control of skeletal muscle movement.
46. Functions of insulin.
 - ☞ Increasing conversion of glucose to glycogen (glycogenesis)
 - ☞ Prevention of breakdown of protein and fat and gluconeogenesis.
 - ☞ Accelerating uptake of amino acids by cells and the synthesis of proteins.
 - ☞ Promoting synthesis of fatty acids storage of fat in adipose tissue.
 - ☞ Decreasing glycogenolysis.
47. Types of joints.

- ⌘ Fibrous joints—permits no movement e.g. skull joints.
 - ⌘ Cartilaginous joints— formed by a pad of tough fibrocartilage acting as shock absorber e.g. between vertebral bodies.
 - ⌘ Synovial joints – presence of a capsule between the articulating bones e.g. hinge, ball and socket, gliding etc.
- 48. Types of muscles.
 - ⌘ Skeletal muscles—biceps and triceps.
 - ⌘ Cardiac muscles—myocardium of the heart.
 - ⌘ Smooth muscles—walls of vessels and intestines.
- 49. Functions of bones.
 - ⌘ Providing body framework.
 - ⌘ Giving attachment to muscles and tendons.
 - ⌘ Allowing movement.
 - ⌘ Haemopoiesis.
 - ⌘ Mineral storage e.g. calcium phosphate.
- 50. Types of bones.
 - ⌘ **Long bones**— have shaft and two extremities and they include femur, tibia.
 - ⌘ **Short bones**—have neither shaft nor extremities e.g. carpals.
 - ⌘ **Irregular bones**—have neither shaft nor extremities e.g. vertebrae.
 - ⌘ **Flat bones**— have neither shaft nor extremities e.g. ribs.
 - ⌘ **Sesamoid bones** – have neither shaft nor extremities e.g. patella.
- 51. Functions of cerebrospinal fluid (CSF)
 - ⌘ Supports and protects the brain and spinal cord by maintaining a uniform pressure.
 - ⌘ Acts as a shock absorber or cushion between the brain and the skull.
 - ⌘ Keeps the brain and spinal cord moist and there may be exchange of nutrients and waste products.
 - ⌘ Regulation of breathing as it bathes the surface of the medulla where central respiratory chemoreceptors are located.
- 52. Functions of lacrimal fluid.
 - ⌘ Provision of oxygen and nutrients to the avascular corneal conjunctiva and drainage of water.
 - ⌘ Washing away irritating material e.g. dust.
 - ⌘ Bacteriocidal enzyme lysozyme prevents microbial infection.
 - ⌘ Its oiliness delays evaporation and prevents friction or drying of the conjunctiva.
- 53. Functions of cerumen (ear wax)
 - ⌘ **It is secreted by ceruminous glands and modified by sweat glands.**
 - ⌘ Sticky substance that contains protective substances like bacteriocidal enzyme lysozyme and immunoglobulins.
 - ⌘ Preventing foreign materials from reaching tympanic membrane by wax.
- 54. Functions of membrane proteins.
 - ⌘ Some are involved in transport across the membrane.
 - ⌘ Some are enzymes.
 - ⌘ Acts as specific receptors (recognition sites) for hormones and other chemical messengers.
 - ⌘ Branched carbohydrate molecules attached to the outside of some membrane protein molecules give the cell its immunological identity.

55. The cytoskeleton of a cell.

- 📖 **Microfilaments** – it provides structural support, maintenance of characteristic shape and permit contraction.
- 📖 **Microtubules**—they are involved in movement of:-
 - Organelles within the cell.
 - Chromosomes during cell division.
 - Cell extremities.
- 📖 **Centrosome**— it directs organization of microtubules.
 - ❖ It is also involved in cell division.

56. Types of tissues.

- 📖 Epithelial.
- 📖 Muscle.
- 📖 Nervous.
- 📖 Connective.

57. Types and functions of epithelial tissue.

Types:

a. Squamous (pavement) epithelium tissue:

- Found in:-
 - ✓ Endocardium of the heart muscle.
 - ✓ Alveoli of lungs.
 - ✓ Collecting ducts of the nephrons (lining layers)

b. Cuboidal epithelium tissue:

- Found in:-
 - ✓ Kidney tubules.

c. Columnar epithelial tissue:

- Found in:-
 - ✓ Lining of the stomach and small intestines

Functions:

- 📖 Absorption.
- 📖 Protection.
- 📖 Secretion.

58. Functions of nutrients in the body.

- 📖 Provision of fuel for energy production.
- 📖 Maintenance of water balance within the body.
- 📖 Provision of building blocks for synthesis of large and complex molecules needed by body.

59. Functions of electrolytes.

- 📖 Acts as a buffer to resist pH changes in the body fluids.
- 📖 Electricity conduction essential for muscle and nerve function.
- 📖 Exerts osmotic pressure keeping body fluids in their own compartments.

60. Functions of sugars.

- 📖 Forming integral part of the structure of DNA and RNA.
- 📖 Providing a ready source of energy to fuel cell metabolism.
- 📖 Providing a form of energy storage i.e. glucagon.
- 📖 Acting as a receptor to recognize other molecules and cells.

61. Biologically active proteins include.

- 📖 Hormones.
- 📖 Enzymes.
- 📖 Antibodies.

- ☞ Carrier molecules (haemoglobin).
- 62. Important groups of lipids.
 - ☞ Phospholipids – integral to cell membrane structure.
 - ☞ Fat-soluble vitamins i.e. A, D, E, K.
 - ☞ Fats (Triglycerides) for:-
 - Energy source.
 - Insulating the body.
 - Protection of internal organs.
 - ☞ Prostaglandins – responsible for inflammation.
 - ☞ Steroids e.g. gonads.
- 63. Constituents of blood plasma.
 - ☞ Plasma proteins – responsible for osmotic pressure i.e. albumins.
 - ☞ Inorganic salts (electrolytes).
 - ☞ Waste products.
 - ☞ Gases (oxygen).
 - ☞ Nutrients.
 - ☞ Hormones.
- 64. Functions of globulins.
 - ☞ Inhibition of some proteolytic enzymes.
 - ☞ Antibodies (immunoglobulins) play a part in immunity.
 - ☞ Transportation of some hormones and mineral salts.
- 65. Constituents of bones.
 - ☞ Water (25%).
 - ☞ Organic constituents including osteoid and bone cells.
 - ☞ Inorganic constituents mainly calcium phosphate (50%).
- 66. Characteristics of a synovial joint.
 - ☞ Articular or hyaline cartilage.
 - ☞ Capsule/capsular ligament.
 - ☞ Synovial membrane.
 - ☞ Synovial fluid.
 - ☞ Nerve and blood supply.
 - ☞ Movement at synovial joints.
 - ☞ Extracapsular structures.
 - ☞ Intracapsular structure.
- 67. Types of synovial joint.
 - ☞ Ball and socket joints.
 - ☞ Hinge joints.
 - ☞ Gliding joints.
 - ☞ Pivot joints.
 - ☞ Saddle joints.
 - ☞ Condylloid joint.
- 68. Main types of synovial joints of the limbs.
 - ☞ Shoulder joint.
 - ☞ Elbow joint.
 - ☞ Ankle joint.
 - ☞ Knee joint.
 - ☞ Proximal and distal radioulnar joint.

- Ⓜ Wrist joint.
 - Ⓜ Hip joint.
 - Ⓜ Joints of the foot and toes.
- 69. Action of skeletal muscle.
 - In order to move a body part, the muscle or its tendons must stretch across at least one joint.
 - When it contracts, the muscle then pulls one bone towards another.
 - Many muscles/muscle groups of the body are arranged so that their actions oppose one another.
- 70. Factors affecting skeletal muscle performance.
 - Ⓜ Skeletal muscle performs better when it is regularly exercised.
 - Ⓜ Training improves endurance and power.
 - Ⓜ Weight lifting increases muscle bulk because it increases the size of individual fibres within the muscle (hypertrophy).
 - Ⓜ Aging reduces the size of muscle fibres as well as their endurance and strength.
- 71. List the cranial nerves in order.
 - I. Olfactory—sensory.
 - II. Optic—sensory.
 - III. Oculomotor—motor.
 - IV. Trochlear—motor.
 - V. Trigeminal—mixed.
 - VI. Abducent—motor.
 - VII. Facial—mixed.
 - VIII. Vestibulocochlear.
 - IX. Glossopharyngeal.
 - X. Vagus.
 - XI. Accessory.
 - XII. Hypoglossal.
- 72. The water-based medium of the body is:-
 - Ⓜ Internal environment.
- 73. The body temperature is a physiological variable:-
 - Ⓜ The negative feedback mechanism.
- 74. The mechanism that facilitates body cells to receive nutrients and oxygen:-
 - Ⓜ The blood and circulatory system.
- 75. Homeostasis can be defined as:-
 - Ⓜ A dynamic and ever-changing state of the body which is kept within narrow limits.
- 76. The term used for the sum total of the body's chemical activity is:-
 - Ⓜ Metabolism.
- 77. A chemical substance consisting of the same type of atoms is:-
 - Ⓜ Element.
- 78. A waste product which dissolves in body fluid to make it acidic to maintain the body's pH within normal body range is:-
 - Ⓜ Carbon dioxide.
- 79. An example of the body's non-specific defense mechanism is:-
 - Ⓜ The skin.
- 80. The study of body structure and its physical relationship of body systems is:-
 - Ⓜ Anatomy.

81. A substance that maintains normal body pH by preventing dramatic changes in blood value is:-
☐ Buffer.
82. The measure of the acidity of a solution is determined by:-
☐ Hydrogen ions.
83. Substances that cross semi-permeable membrane down its concentration gradient without use of energy, the process involved is:-
☐ Passive transport.
84. Complex carbohydrate that forms important biological molecules are:-
☐ Polysaccharides.
85. Groups of tissues found covering body lining cavities and hollow organs and tubes are:-
☐ Epithelial tissues.
86. The largest cavity in the body that is oval in shape is:-
☐ Abdominal cavity.
87. Red blood cells develop from:-
☐ Pluripotent stem cells.
88. The exchange of nutrients and gases takes place at:-
☐ Capillary bed.
89. Lymphatic duct that drains lymph from the right half of the thorax, head, neck and right arm is:-
☐ Right lymphatic duct.
90. Transmission of the nerve impulses during action potential occurs due to:-
☐ Movement of ions across the nerve cell membrane.
91. Sympathetic nerve fibres have axons of cells in:-
☐ White matter.
92. State the properties of the neurons.
☐ Irritability/excitability.
☐ Conductivity.
93. List six main arteries which form the circle of Willis.
☐ Basilar artery.
☐ Internal carotid artery.
☐ Anterior communicating artery.
☐ Posterior communicating artery.
☐ Anterior cerebral arteries.
☐ Posterior cerebral arteries.
94. State the three distinct parts of the human ear.
☐ Outer ear.
☐ Middle ear.
☐ Inner ear.
95. State the three types of nerves.
☐ Sensory or afferent nerves.
☐ Motor or efferent nerves.
☐ Mixed nerves.
96. Explain the three functions of the cerebral cortex.
☐ Mental activities like thinking and reasoning.
☐ Sensory perception like pain and temperature.
☐ Initiation and control of skeletal muscle contraction and voluntary movement.
97. Explain the four functions of the cerebro-spinal fluid (CSF).
☐ Supports and protects the brain and spinal cord, maintains uniform pressure.

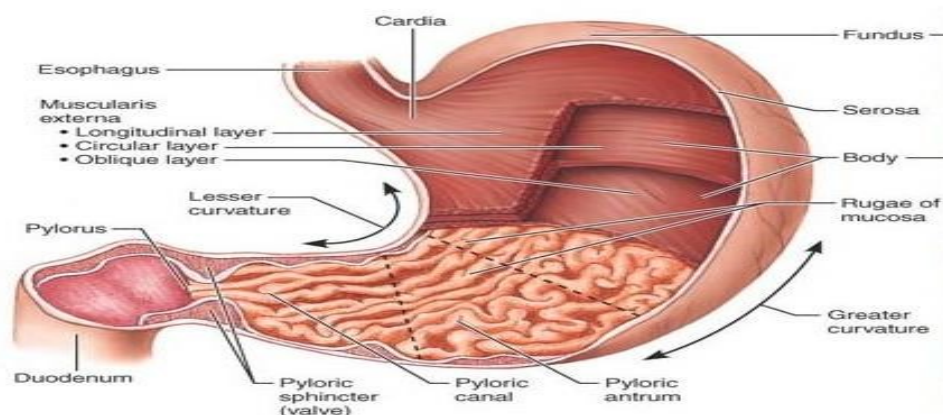
- Cushioning or shock absorber between the brain and the skull.
- Keeps brain and spinal cord moist hence exchange of nutrients and waste products between CSF and cells.

98. State the composition of blood plasma.

- Plasma proteins.
- Inorganic compounds.
- Gases (oxygen).
- Nutrients.
- Waste materials (urea)

REVIEW OF THE ANATOMY AND PHYSIOLOGY OF THE ALIMENTARY CANAL:

1. With the aid of a well-labeled diagram, explain the functions of the stomach (10 marks)



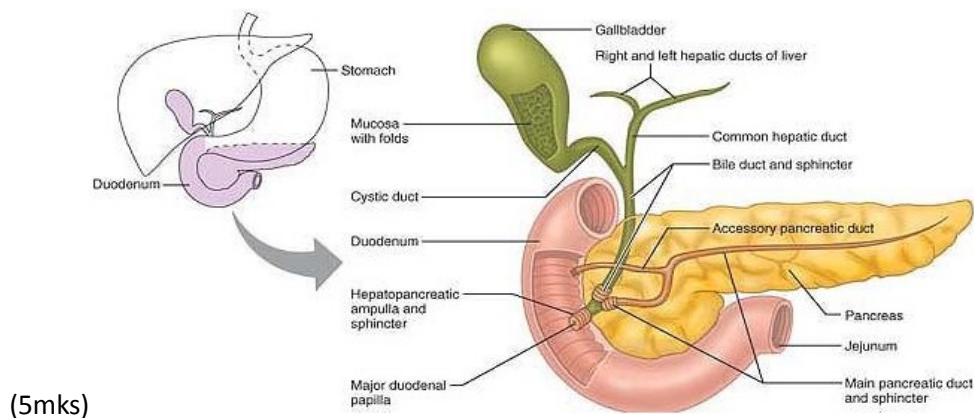
Functions:

- It's a temporary storage of food allowing time for pepsin activity
- Chemical digestion - in the stomach proteins are converted to polypeptides by pepsin.
- Mechanical digestion - through churning of food ensures thorough mixing with gastric juice and liquefaction to make chyme.
- Limited absorption of water, alcohol and some drugs.
- Provides non-specific defense against microbes by the presence of HCL and vomiting.
- Within the stomach iron is dissolved from food ready for absorption in the small intestines.
- It produces and secretes intrinsic factor needed for vitamin B_{12} absorption
- Secretes the hormone gastrin.

2. List at least 5 structures associated with small intestines (2.5 marks)

- Ascending colon.

- Descending colon.
 - Transverse colon.
 - Sigmoid colon.
 - Caecum.
3. State the function of the structures that make up the small intestine (5 marks)
- Onward movement of its contents by peristalsis.
 - Secretion of intestinal juice.
 - Secretion of the hormones CCK and secretin.
 - Absorption of nutrients, water, alcohol and some drugs
 - Protection against infection.
 - Completion of chemical digestion of carbohydrates, proteins and fats in enterocytes of villi.
4. Explain the process of digestion in the small intestine (5 marks)
- The muscles of the small intestine mix food with digestive juices from the pancreas, liver, and intestine, and push the mixture forward for further digestion. The walls of the small intestine absorb water and the digested nutrients into your bloodstream.
5. List 4 functions of large intestines (2 marks)
- Defaecation.
 - Absorption of water, mineral salts and some drugs.
 - Mass movement.
 - Microbial activity.
6. Draw a well-labeled diagram of the pancreas in relation to the duodenum and biliary tract



7. List 10 functions of the liver (5 marks)
- Metabolism of fats.
 - Detoxification of drugs and toxic substances.
 - Carbohydrate metabolism.
 - Protein metabolism.
 - Breakdown of erythrocytes and defense against microbes.
 - Production of heat through metabolism.
 - Storage of: iron, copper, vitamins (A, D, E, K), glycogen.
 - Secretion of bile.
 - Inactivation of hormones e.g. insulin, glucagon.
8. Explain the physiology of the gallbladder (3 marks)
- Release of stored bile.
 - Reservoir for bile.

- Concentration of bile.

9. List 5 components of bile (2.5 marks)

- Water.
- Mucus.
- Bile salts.
- Bile pigments.
- Mineral salts.
- Cholesterol.

10. Briefly explain why mature gametes carry only one set of chromosomes

A single gamete must combine with a gamete from an individual of the opposite sex to produce a fertilized egg, which has a complete set of chromosomes and is the first cell of a new individual

11. What special features are evident in sperm cells but not in somatic cells, and how do these specializations function?

Unlike somatic cells, sperm are haploid. They also have very little cytoplasm. They have a head with a compact nucleus covered by an acrosome filled with enzymes, and a mid-piece filled with mitochondria that power their movement. They are motile because of their tail, a structure containing a flagellum, which is specialized for movement.

12. What do each of the three male accessory glands contribute to the semen?

The three accessory glands make the following contributions to semen: the seminal vesicle contributes about 60 percent of the semen volume, with fluid that contains large amounts of fructose to power the movement of sperm; the prostate gland contributes substances critical to sperm maturation; and the bulbourethral glands contribute a thick fluid that lubricates the ends of the urethra and the vagina and helps to clean urine residues from the urethra.

13. Describe how penile erection occurs.

During sexual arousal, nitric oxide (NO) is released from nerve endings near blood vessels within the corpora cavernosa and corpus spongiosum. The release of NO activates a signaling pathway that results in relaxation of the smooth muscles that surround the penile arteries, causing them to dilate. This dilation increases the amount of blood that can enter the penis, and induces the endothelial cells in the penile arterial walls to secrete NO, perpetuating the vasodilation. The rapid increase in blood volume fills the erectile chambers, and the increased pressure of the filled chambers compresses the thin-walled penile venules, preventing venous drainage of the penis. An erection is the result of this increased blood flow to the penis and reduced blood return from the penis.

14. While anabolic steroids (synthetic testosterone) bulk up muscles, they can also affect testosterone production in the testis. Using what you know about negative feedback, describe what would happen to testosterone production in the testis if a male takes large amounts of synthetic testosterone.

Testosterone production by the body would be reduced if a male were taking anabolic steroids. This is because the hypothalamus responds to rising testosterone levels by reducing its secretion of GnRH, which would in turn reduce the anterior pituitary's release of LH, finally reducing the manufacture of testosterone in the testes.

BASIC NURSING PROCEDURES

PART I: MCQ's

1. The following statement is true about admission of a patient in the ward:
 - a) Admission to hospital is not a stressful event like other procedures.
 - b) The condition of the patient will determine the extent of the admission procedure.
 - c) Client's past experience in the hospital is not relevant.
 - d) Nurses may not play a key role in coordinating care from admission through discharge.
2. The following are observations noted on stool specimen:
 - a) Color, smell, acetone
 - b) Deposits, color, urea
 - c) Color, smell, deposits
 - d) Reaction, color, uric acid
3. The best time to collect sputum specimen is:
 - a) Early in the morning
 - b) Late in the evening
 - c) After breakfast
 - d) Before breakfast
4. After removing a urinal from a patient, routinely one should:
 - a) Warm it, empty, sterilize and clean
 - b) Observe urine, empty, disinfect, clean
 - c) Measure urine, record in patient's records and give report
 - d) Keep it under the bed, let patient use it till it's full
5. The following is the procedure in collection of a 24-hour urine specimen:
 - a) Give the patient a big urine container; instruct him to put all urine passed from midnight to midnight the following day.
 - b) Give the patient a big urine container; ask him to put all the urine passed from 6am to 6am the following day.
 - c) Give the patient a big urine container, ask him to pass urine at 6am and discard it, then collect all the urine passed up to 6am the following day.
 - d) Give the patient a big urine container, ask him to pass urine at 6am and discard it, then collect all the urine passed up to 6am the following day and discard.
6. The following should be observed when making an occupied bed:
 - a) Open nearby windows.
 - b) Remove all linen.
 - c) Keep the dirty linen on the floors.
 - d) Keep the patient covered always.
7. The liver is palpated on the:
 - a) Left hypochondriac region

- b) Epigastric region.
 - c) Right hypochondriac region.
 - d) Hypogastric region
8. A patient has been taking medicines for high blood pressure before admission, his information is recorded as part of:
- a) Present medical history
 - b) Past medical history
 - c) Family history
 - d) Surgical history

PART II:

- a. List four indications of admitting a patient into hospital.
 - ❖ Monitor progress.
 - ❖ Pre-operative.
 - ❖ Post-operative.
 - ❖ Safe environment.
 - ❖ Treatment.
- b. State the five steps involved in making a diagnosis:
 - ❖ Demographic data-involves name, age, sex, tribe, hospital number of the patient/client.
 - ❖ Subjective data-deals with reasons for consultation.
 - ❖ Objective data-obtained through P/E.
 - ❖ Assessment-diagnosis
 - ❖ Plan-treatment and review clinics.
- c. List two indications for giving bedpans and urinals:
 - ❖ Seriously sick patients unable to walk confined in bed.
 - ❖ During urine collection for testing.
- d. List three specific instructions given to a patient to collect a midstream urine specimen:
 - ❖ Initial urine should be discarded.
 - ❖ Midstream urine collected.
 - ❖ Last stream should be discarded.
- e. State three methods used in P/E
 - ❖ Inspection-observation
 - ❖ Auscultation-vibration of movements of organs by use of e.g. stethoscope.
 - ❖ Palpation-use of fingers to examine

KMTC/ QP-08/TIS
KENYA MEDICAL TRAINING COLLEGE –
NURSING CLASS
BASIC NURSING
PROCEDURE SEND-
SEMESTER EXAMS

MULTIPLE CHOICE QUESTIONS (MCQs)

- 1. Which of the following complications is most likely to occur 2-4 hours postoperatively?
 - a. Wound infection, chest infection, aspiration.
 - b. Chest infection, paralytic ileus, aspiration.
 - c. Paralytic ileus, aspiration, bleeding.

- d. Aspiration, bleeding, wound infection.
2. In death rigormortis occurs after?
 - a. 48hrs.
 - b. 12hrs.
 - c. 2-6hrs.
 - d. 30minutes.
3. Pre-operative period is defined as?
 - a. Time before, during and after an operation.
 - b. It begins when the patient is admitted in the ward and ends when the patient is discharged home.
 - c. Time when the patient recovers from anesthesia.
 - d. Time when the patient is prepared for operation.
4. The following is an advantage of verbal report.
 - a. Removes error in identifying the patient reported on.
 - b. Communicates to other team members giving care to patient e.g. doctors.
 - c. During change of shift by the nursing staff.
 - d. Given twice in a day in the morning and in the evening.
5. The three essential elements of effective hand washing include:
 - a. Running water, disinfectant, and spirit.
 - b. Friction, water in a basin, spirit.
 - c. Friction, running water, soap.
 - d. Soap, water in a basin, alcohol rubs.
6. When feeding a patient through a nasogastric tube, the best position to place is:
 - a. Flat on his back.
 - b. On his left side.
 - c. On his right side.
 - d. In a low sitting position.
7. A technique in physical examination where sounds are elicited is:
 - a. Palpation.
 - b. Percussion.
 - c. Auscultation.
 - d. Impaction.
8. Reverse barrier nursing is aimed at:
 - a. The patient is nursed in Lerner bed.
 - b. Precautions are taken to protect the patient.
 - c. Precautions are taken to protect the infected patient.
 - d. The patient usually has a high infectious condition.

SECTION B:

1. List four types of therapeutic baths.
 - ❖ Cool water tub bath.
 - ❖ Warm water tub bath.
 - ❖ Hot water tub bath.
 - ❖ Sitz bath.
 - ❖ Bran bath
2. Giving indications, list six bed appliances.
 - ❖ Hot water bottle-keep the patient warm

- ❖ Bedcradle-protect injured parts from coming into contact with the bedcloths.
- ❖ Footrest- to prevent foot drop
- ❖ A backrest/bedrest-patient with difficulty in breathing
- ❖ Fracture board-provides support to painful back
- ❖ Siderails/cotrails-safety of patient from falling.
- 3. List five aspects used to assess if a dressing pack is sterile.
 - ❖ Check expiry date– takes 28 days after sterilization.
 - ❖ Check sterilizing tape.
 - ❖ Wetness.
 - ❖ Holes.
 - ❖ Protruding instruments.
 - ❖ Looseness of the pack.
- 4. State three steps in wound healing.
 - ❖ Inflammatory Phase
 - ❖ Proliferative Phase
 - ❖ Maturation Phase
- 5. List four nursing interventions used to prevent pressure sores development.
 - ❖ Changing position often.
 - ❖ Using support surfaces.
 - ❖ Cleaning.
 - ❖ Controlling incontinence.
 - ❖ Removal of damaged tissue (debridement).
 - ❖ Rehydration (eating balanced diet)
 - ❖ Maintaining a dry skin and applying lotion.
 - ❖ Changing dirty linens
 - ❖ Inspecting the area more often – twice daily
- 6. List four advantages of injection over oral drug administration.
 - ❖ Fast in action.
 - ❖ Intravenous is the fastest.
 - ❖ One is sure the drug has been given.
 - ❖ Small doses are more effective.
 - ❖ Some drugs are inactivated in the stomach.
 - ❖ Drugs which do not pass the blood brain barrier must be given intradurally.
 - ❖ Impressive method for all.
- 7. List five rights of drug administration.
 - ❖ Right Drug.
 - ❖ Right Patient.
 - ❖ Right Time.
 - ❖ Right Route.
 - ❖ Right Dosage.

KENYA MEDICAL TRAINING COLLEGE–
END–
SEMESTER EXAMS BASIC NURSING
PROCEDURES

PART I: MCQ's

1. Indications for admitting a patient:

- ✓ Treatment
- ✓ Monitor progress
- ✓ Safe environment

This document is available on



✓ Pre-operative

✓ Post-operative

2. Kinds of patients who will come to you in the ward for admission.

✓ Amputated.

✓ On a wheel chair.

✓ Unconscious

✓

3. What is Hx taking?

✓ Information a patient presents to a healthcare provider.

Types of Hx obtained from a patient.

✓ History of presenting illness.

✓ Past medical hx.

✓ Surgical hx.

✓ Social hx.

✓ Family hx.

✓ Obstetric hx.

✓ Economic hx.

✓ Immunization hx (pediatrics)

5. Differentiate between subjective and objective data.

✓ Subjective Data: - deals with reasons for consultation (use patient's own words).

✓ Objective Data: - obtained through P/E.

6. Methods used in P/E.

✓ Palpation - use of sense of touch.

✓ Auscultation - use of stethoscope to listen to sounds.

✓ Percussion - striking or tapping

✓ Inspection - observation

7. Observations noted on stool specimen.

✓ Shape.

✓ Texture.

✓ Smell.

✓ Color.

✓ Size.

8. Observations noted on urine specimen.

✓ Color.

✓ Smell.

✓ Turbidity.

✓ Specific gravity.

✓ Deposits.

✓ pH.

9. The removal of necrotic (dead cells) tissue from a decubitus (pressure sore) is referred to as:

✓ Debridement.

10. When giving a bed bath to a patient, always start with the:

✓ Face.

11. The main purpose of writing a ward report is to:

✓ Ensure continuity of care.

✓ Ensure accountability

- ✓
12. The most effective method of infection prevention is:
✓ Handwashing.
13. An intravenous fluid concentration is similar as plasma is:
✓ Isotonic solution.
14. A technique in P/E where a stethoscope is used is:
✓ Auscultation.
15. Maintenance of normal blood pressure depends on:
✓ Cardiac output.
✓ Venous return.
✓ Peripheral resistance.
16. Which is the bed appliance used for patients with spinal cord fracture:
✓ Fracture board.
17. Position indicated for enema administration:
✓ Left lateral.
18. Pressure sores can be prevented by:
✓ 2 hourly turning of the patient, pressure area care.
19. Personal hygiene for a patient confined in bed due to a fracture of the lower limb can be maintained through:
✓ Assisted bed bath.
20. During P/E, enlarged spleen will be detected on:
✓ Left Hypochondriac region
21. A patient may be transferred when:-
✓ The condition requires specialized care.
✓ When the patient is not satisfied with services offered.
22. Reverse barriers nursing is practiced to:-
✓ Protects susceptible individual from getting infection from other people.
23. The three essential elements of effective handwashing include use of:
✓ Soap, running water, friction.
24. A chemical agent which is irritant to the skin and mucous membrane but is used to kill micro-organisms is only is:
✓ Disinfectant.
25. Definitions:-
a) Pre-operative period:- period before patient is taken to operation section.
b) Intraoperative period:- period in which operation is being done on a patient.
c) Post operative period:- period after procedure has been done to a patient and is at the ward from operation section.
26. Roles of escort nurse:-
✓ Continuity of nursing care while on the way.
✓ Assess and give emergency care as required.
✓ Offering psychological support.
✓ Give adequate report when handling patient and documents over to receiving hospital.
✓ Introduce the patient to other care providers of receiving hospital.
27. Indications of admitting a patient:-
✓ Rx.
✓ Pre-operative
✓ Postoperative.
✓ Monitoring progress.
✓ Safe environment.
28. List indications of bedmaking:
✓ If the bed has been occupied the bed should be prepared once it's used.
✓ In the morning before normal activities start.

- ✓ When the patient is admitted into the ward.
- ✓ When preparing the ward i.e. during clean lines to ease movement.
- ✓ After discharging a patient.

29. Giving indications, list the types of beds made in hospital:

- ✓ Admission bed/empty bed/unoccupied bed
- ✓ Occupied bed-someone assigned to it
- ✓ Operation bed/post-operating bed-
- ✓ Cradle bed/amputation bed/ divided bed
- ✓ Fracture bed
- ✓ Cardiac bed

30. Giving uses, list bed appliances:

- ✓ Waterproof material & a draw sheet
- ✓ Hot water bottle-keep the patient warm
- ✓ Bed cradle-protect injured parts from coming into contact with the bedcloths (burns).
- ✓ Bed blocks/bed elevators- to raise head or foot of the patient and prevent patient from falling.
- ✓ A backrest/bed rest-patient with difficulty in breathing
- ✓ Fracture board-provides support to painful back
- ✓ Side rails/cot rails-safety of patient from falling.
- ✓ Sand bags-immobilizes joint below the fracture.
- ✓ Airing/form/rubbing (used to relieve pressure)
- ✓ Bed table- used for patients taking food.
- ✓ Footrest- to prevent foot drop
- ✓ Foot-boot
- ✓ Electric blanket-extra warmth
- ✓ Extra pillows-extra comfort
- ✓ Bedside table/locker-used to store patient's food
- ✓ Overhead trapeze-regulates movement.
- ✓ Egg crate mattress- to prevent pressure sores.
- ✓ Heel/elbow ring- to relieve pressure

31. List specific indications for any positions used in nursing:-

- ✓ Dorsal recumbent-vaginal examinations.
- ✓ Trendelenburg's-postural drainage and promote venous drainage.
- ✓ Knee-chest-rectal procedure/examination.
- ✓ Supine-spine surgery and spine anesthesia.
- ✓ Fowler's-breathing problems and cardiac output problems.

32. State specific instructions given to a patient on 24-hour urine specimen collection:

- ✓ Void the initial urine into toilet.
- ✓ All subsequent urine collected to be passed to urine jug before emptying to specimen bottle.
- ✓ Last urine after 24 hours should be collected.
- ✓ Label and send urine specimen to lab within 15-20 minutes of collection.

33. Differentiate between barrier and reverse barrier nursing:

34. State four consequences of Hospital Acquired Infections:

35. List factors influencing wound healing:

- ✓ Developmental consideration.
 - ✓ Nutrition.
 - ✓ Lifestyle.
 - ✓ Medication.
 - ✓ Adequate rest.
 - ✓ Infection.
 - ✓ Smoking.
36. Importance of infection prevention:-
- ✓ Reduce period of stay in the hospital.
 - ✓ Reduce the cost due to extended hospitalization.
 - ✓ Prevent sepsis on wounds.
37. Abnormalities noted on stool specimen:-
- ✓ Texture.
 - ✓ Smell.
 - ✓ Shape.
 - ✓ Deposits.
 - ✓ Size.
38. Methods of lowering temperature:-
- ✓ Exposure.
 - ✓ Giving cold drinks.
 - ✓ Fanning.
 - ✓ Antipyretics.
 - ✓ Opening nearby windows and doors.
39. Sites of checking pulse rate:-
- ✓ Temporal.
 - ✓ Facial.
 - ✓ Carotid artery.
 - ✓ Radial artery.
 - ✓ Femoral artery.
 - ✓ Fontanel.
 - ✓ Apex beat.
 - ✓ Posttibial artery.
40. Bed appliances:-
- ✓ Egg crate mattress – prevent pressure sores.
 - ✓ Hot water bottle – provide warmth to patient.
 - ✓ Electric blanket – extra warmth.
 - ✓ Extra pillows.
 - ✓ Fracture board.
 - ✓ Bed side table.
 - ✓ Bed table.
41. Stages of dying process according to Ross Kubler:
- ✓ Denial: patient appears dazed and refuses to believe the Dx.
 - ✓ Anger: patient becomes frustrated, irritable and angry that he/she is sick and going to die.
 - ✓ Bargaining: patient may attempt to negotiate with physicians, friends or even God in return for cure.
 - ✓ Depression: patient shows withdrawal, sleep disturbances, hopelessness and possible suicidal ideation. Maybe due to effects of illness or anticipation of approaching death.

- ✓ Acceptance: patient realizes death is inevitable and accepts the universality of the experience.
42. Observations carried out on a patient immediately on being received back from a major operation:-
- ✓ Temperature.
 - ✓ Pulse rate.
 - ✓ Blood pressure.
 - ✓ Level of response.

END OF SEMESTER ONE
EXAM THE NURSING PROCESS
(PAPER) **PART I: MCQ's**

1. Which of the following is a priority nursing diagnosis:-
 - a) Health promotion diagnosis.
 - b) Wellness diagnosis.
 - c) Risk diagnosis.
 - d) Actual diagnosis.
2. Signs and symptoms are likely to the etiology by the phrase:-
 - a) "Related to"
 - b) "Secondary to"
 - c) "As evidenced by"
 - d) "Primary to"
3. Emergency assessment:-
 - a) Collects data about a problem that has already been identified.
 - b) **Perform an assessment to identify a life-threatening problem (choking, stab wound, heart attack).**
 - c) Initial assessment on first contact with a client or on admission.
 - d) Screening for a specific problem.
4. Represents a problem that has been validated by presence of a defining characteristics (signs and symptoms):-
 - a) Medical diagnosis.
 - b) Risk diagnosis.
 - c) Actual diagnosis.
 - d) Maslow's needs.
5. Activities in the planning phase of the nursing process:-
 - a) Reassess client, prioritize problem, and collect data, nursing interventions.
 - b) Data collection, prioritize problem, organize data, and formulate goals.
 - c) Prioritize problem, formulate goals, state nursing interventions, write nursing interventions.
 - d) Reassess client, prioritize problem, organize data, nursing intervention.
6. Activities in the assessment phase of the nursing process:-
 - a) Compare data, reassess client, determine nursing interventions, and formulate diagnosis.
 - b) Reassess client, prioritize problem, organize data, and formulate goals.
 - c) Reassess client, collect data, and formulate goals, nursing interventions.
 - d) Data collection, organizing data, validating data, documenting data.
7. An objective behavior or response you expect the client to achieve in a long period of time possibly over several days, weeks or months:-
 - a) Short term.
 - b) Long term.

- c) Lapsed time.
- d) Emergency time.
- 8. What is the evaluation phase of the nursing process:-
 - a) Compare the client's response in relation to set goals/desired outcome.
 - b) Implement the nursing interventions.
 - c) Identify health problems.
 - d) Validate data collected.
- 9.
 - e) How do you formulate a risk diagnosis? /what does a risk diagnosis consist of. A risk nursing diagnosis consists of 3 parts/components false.
 - f) Implementing interventions include: personal skills in communication and therapeutic interactions false.

Emergency assessments → collect data about a problem that has already been identified false.

Secondary sources of data → information collected are obtained from patient only false.

PART II: SAQ's

1. Define the following terms:-
 - a)
 - a. The nursing process – It is a systematic, rational, scientific method of planning and providing individualized care to the patient, a family or a community at large
 - b. The nursing diagnosis – It is a clinical judgment about a client's individual, family or community response to actual and potential health problems that a nurse can order nursing interventions to reduce, eliminate or prevent.
 - c. The nursing care plan – A written or computerized guide that organizes information about the patient's/client's care, it provides continuity of care.
 - d. A goal/expected outcome.
 - e. Documentation. (5mks)
2. Explain the components of the nursing diagnosis. (3mks)
3. Differentiate between the nursing process and the medical process. (3mks)
4. Outline three (3) benefits of the nursing process (NANDA). (3mks)
5. Explain how to collect object data during assessment phase of the nursing process. (5mks)
6. Briefly explain three (3) characteristics of the nursing process. (3mks)
7. Outline three (3) types of assessment in the assessment phase of the nursing process. (3mks)

PART III: ESSAY/LAQ

1. Discuss the five (5) steps/phases of the nursing diagnosis (20mks)

KENYA MEDICAL TRAINING COLLEGE—

NURSING PROCESS

QUESTIONS:

1. Define the following terms:
 - a) Nursing process: **-it is a rational and systematic method of planning and providing individualized quality nursing care to an individual, family or society.**
 - b) Assessment phase of the nursing process: **-systematic and continuous data collection.**
 - c) Nursing diagnosis: **-clinical judgment about individual, family or community response to actual or potential health problems.**
2. Outline characteristics of the Nursing process:
 - ⇒Cyclic and dynamic.
 - ⇒Client's centered.
 - ⇒Universally acceptable.
 - ⇒Interpersonal and collaborative.
 - ⇒Humanistic.
 - ⇒Permits creativity, critical thinking and rational decision making.
3. Explain benefits of the Nursing process:
 - ⇒Individualized care.
 - ⇒Increases client's participation.
 - ⇒Stresses the independent function of a nurse.
 - ⇒Provides an orderly and systematic method of planning and providing care.
 - ⇒Facilitates documentation of care.
 - ⇒Continuity of care and prevention of duplication of services.
 - ⇒Provides a unity of language for nursing profession.
4. List phases of the Nursing process:
 - ⇒Assessment.
 - ⇒Diagnosis.
 - ⇒Planning.
 - ⇒Implementation.
 - ⇒Evaluation.
5. List types of assessment done to clients during the assessment phase of the nursing process.
 - ⇒Comprehensive assessment.
 - ⇒Problem– focused/Episodic assessment.
 - ⇒Timelapse/re–assessment.
 - ⇒Emergency assessment.
6. List types of **NANDA** nursing diagnosis:
 - ⇒Actual.
 - ⇒Risk/potential.
 - ⇒Possible.
 - ⇒Syndrome.
 - ⇒Wellness.
7. Briefly explain the components of the nursing diagnosis:
 - ⇒Problem statement/diagnosis.
 - ⇒Etiology.

⇒ Defining characteristics.

8. List the activities in the planning phase of the nursing process:

⇒ Set priorities.

⇒ Establish goals and desired outcomes.

⇒ Set individualized nursing intervention.

⇒ Write individualized nursing intervention in NCP.

Scenario:

Brenda sixteen (16) years old is brought to your medical ward with Hx of diarrhea and vomiting, headache, hotness of the body and general body weakness. O/E, her temperature is 40.8°C, she verbalizes severe headache, her skin pinch goes back very slowly (poor skin turgor) and she is very weak, so passing stool and urine in bed.

9. Read the scenario and formulate five nursing diagnoses for this patient:

⇒ Fluid volume deficit related to GI infection as evidenced by diarrhea.

⇒ Electrolyte imbalance related to loss of fluids as evidenced by irritability.

⇒ Acute pain related to infection as evidenced by patient verbalizing.

⇒ Anxiety related to state of illness as evidenced by patient asking many questions.

⇒ Impaired thermoregulation related to infection as evidenced by temperature at 40.8°C.

⇒ Risk of impaired skin integrity related to immobility.

10. State the unique function of a nurse according to Virginia Henderson:

⇒ It is to assist individual sick or well in the performance of the activities contributing to health recovery or peaceful deaths that he/she could perform unaided if he/she had necessary will and knowledge and to do this in such a way as to hope gain independent rapidly as possible.

11. State two classifications of a nursing Dx:

⇒ Actual diagnosis.

⇒ Potential diagnosis.

12. State five benefits of using N.P in patient care:

⇒ Individualized care.

⇒ Increases client's participation.

⇒ It stresses the unique function of a nurse.

⇒ It enhances continuity of care and prevents duplication of services.

⇒ It enhances documentation of care.

⇒ Provides orderly and systematic method of planning and providing care.

13. State three components of using Dx according to NANDA:

⇒ Problem statement.

⇒ Etiology.

⇒ Defining characteristics.

14. State four types of patient assessment:

⇒ Comprehensive assessment.

⇒ Problem focused/episodic.

⇒ Time lapsed re-assessment.

⇒ Emergency assessment.

15. Define N.P according to Virginia Henderson:

⇒ It is a systematic rational method of planning and providing individualized quality nursing care to a patient, family or community.

16. State four characteristics of N.P:

- ⇒ Client centered.
- ⇒ Cyclic and dynamic.
- ⇒ Humanistic.
- ⇒ Universally applicable.
- ⇒ Interpersonal and collaborative.
- ⇒ All phases are collaborative.
- ⇒ Permits creativity, critical thinking and rational decision making.

17. State three differences between Nursing and Medical Process:

Nursing process	Medical process
Identifies the situation the nurse is licensed and qualified to Rx	Identifies the situation the medical doctor is licensed and qualified to Rx
Focuses on client's response to actual or potential health problem.	Focuses on illness, injuries and disease process.
Changes as the client responds and/or health problem changes.	Remains constant until the cure is effected.

18. State four activities in Assessment data:

- ⇒ Data collection.
- ⇒ Organization of data.
- ⇒ Validating data.
- ⇒ Documentation/record.

19. State five types of Nursing Dx:

- ⇒ Actual.
- ⇒ Potential.
- ⇒ Possible.
- ⇒ Syndrome.
- ⇒ Wellness.

20. State three categories of patient classification and three benefits:

Category A

- Very sick patients who need maximum care
- Nursed near nursing station and nursed by the experienced and most skilled

Category B

- They are partial compensatory
- They need less close monitoring
- They are out of danger
- Need supportive care and can conduct their daily activities on their own

Category C

- They are out of danger patients who are either discharged to go home or they are awaiting elective surgery.
- They need support, health education and psychotherapy.

Benefits of patient's classification:

- It maximizes use of nursing staff and nursing competences.
- It minimizes danger patients may be exposed to.
- It makes staff accountable for the action.
- It reduces error margins.

21. The most important and widely acceptable reason for using nursing process is:
22. When reading the nursing goals/outcomes for client, the nurse should:
23. Define nursing care plan and describe the components of the nursing care plan:
24. State the initial components of a comprehensive assessment which leads to problem identification in a patient:

**KENYA MEDICAL TRAINING COLLEGE –
PROFESSIONALISM**

PART I – MCQ's

1. According to nursing code of ethics, when working as a nurse and a conflict comes up between your client's needs and what the family or physician wants, your first loyalty is to the:-
 - a) [Hospital.](#)
 - b) Client.
 - c) Family.
 - d) Physician.

2. You are attending an elderly patient who refuses vitamin B injection ordered by the physician but the family insists that this injection must be given and you give it while client is objecting. The client contacts a lawyer, from your knowledge of nursing and the law, you realize that you:-
 - a) Did the right thing because the client improved.
 - b) Should have the family put their request in writing.
 - c) Have committed an assault against the client.
 - d) [Have committed an act of battery against the client.](#)

3. When a nurse is tried under criminal law the nurse is being brought to trial by:-
 - a) Society as a whole.
 - b) An organization.
 - c) An individual.
 - d) [The plaintiff's lawyer.](#)

4. When a nurse is checking the physician's order against medication prior to setting up medication record prior to setting up medications that nurse discovers a medication error made on the previous shift. The nurse reports this error to the supervising nurse. Which of the following persons will need to fill out an incident report?
 - a) [The nurse who discovered the error.](#)
 - b) The nurse who committed the medication error the previous shift.
 - c) Supervising nurse who is in-charge of the nursing care unit.
 - d) Primary nurse assigned to the client the previous day.

5. When working as a nurse, you determine that a patient scheduled for surgery does not understand the physician's earlier explanation of the surgery. The client is asking many questions about risks and seems worried. Which of the following actions would be best on your part?
 - a) Quickly explain the surgery procedure and the risks to the client.
 - b) Ask your supervisor to explain the surgery procedure and its risks.
 - c) Notify the physician.
 - d) [Cancel the surgery.](#)

PART II – SAQ's

1. Define Professionalism:
⇒ It is adherence to a set of values comprising statute laws of professional creations and formerly agreed codes of conduct which inform the expectations of patients and teammates.

2. Define a professional nurse:
⇒ It is an individual who has successfully undergone a prescribed training program, has passed a licensing examination and is registered by the nursing regulatory body i.e. NCK

3. State six characteristics of a professional nurse:
⇒ Display high standards of profession and integrity.

- ⇒Have innerresourceshe cancome forrenewaloffateandencouragement whenwearyanddiscouragement.
 - ⇒Dealingcompetentlywithcrisis situation.
 - ⇒Providingholisticcare to patients andrelatives.
 - ⇒Proudoftheprofessionand considersit to be atbarlikeotherprofessions.
 - ⇒Seekscompetentlyto improveonhis/herskillsthroughcontinuingeducationandresearch.
4. Outline sixrolesofKRCHN:
 - ⇒Counselor.
 - ⇒Entrepreneur.
 - ⇒Change-agent.
 - ⇒Educator.
 - ⇒Careprovider.
 - ⇒Clients'advocate.
 - ⇒Researcher.
 5. Statesixuniversalgoalsofnursing:
 - ⇒Research.
 - ⇒Promotionofhealth.
 - ⇒Preventionofillness.
 - ⇒Promotingsafe workingenvironment.
 - ⇒HealthsystemsMnx.
 - ⇒Careof sick.
 - ⇒Educationtopatientsandfamilies.
 6. Statethe rolesofanurse inachievingthe 14basic needsofapatient:
 - ⇒Supplementary role.
 - ⇒Complimentaryrole.
 - ⇒Substitutiverole.
 7. Statetheunique functionofanurseaccordingto VirginiaHenderson.
 - ⇒It is to assist the individuals, sick or well in the performance of these activitiescontributing to health recovery or peaceful deaths that he/she could perform unaided ifhe/she had necessary will, strength and knowledge and to do this in such a way as tohope gainindependently rapidlyas possible.
 8. Outline theethicalprinciples inNursing.
 - ⇒Non-maleficence-nurse avoids negative acts againsttheclients/patients.
 - ⇒Beneficence -giveproperservices forthe selfinterest.
 - ⇒Veracity- faithfultoone'sduty.
 - ⇒Fidelity -maintainintegrityof clients.
 - ⇒Justice-provisionofservices equallywithno discrimination.
 9. Statebenefitsofnursingprofessionalorganizationstoitsmembers.
 - ⇒Updatenursingwithknowledge,attitude andskills forimprovement.
 - ⇒Formlinkwithotherorganizations.
 - ⇒Advocateonwelfareissues.
 10. Statenurse'sbillsorights.
 - ⇒Compensation.
 - ⇒Supplies.
 - ⇒Promotionandcareer development.
 - ⇒Continuedlearning.
 - ⇒Risk allowance.
 - ⇒Safeworkingenvironment.
 - ⇒Autonomy/independence.

11. State functions of Nursing Council of Kenya.
 - ⇒ Indexes student nurses aspiring to be nurses.
 - ⇒ Make provision for training, registration and enrolling of nurses.
 - ⇒ Advising the minister on matters concerning nursing.
 - ⇒ Describing badges, uniform by persons to be registered.
 - ⇒ Sets and marks exams for those ready to be nurses.
 - ⇒ Disciplines nurses for omissions and malpractice.
12. Outline the customer's obligations as displayed in the Nursing charter.
 - ⇒ Care for personal hospital records and produce them when they are requested.
 - ⇒ Be considerate to other patients and ensure minimal noise.
 - ⇒ Follow nurses' appointment dates.
 - ⇒ Engage in a positive health seeking behavior and lifestyle.
13. Nursing is a service to humanity:
 - a) Describe the 14 fundamentals of human beings.
 - ⇒ Breathing normally.
 - ⇒ Eating and drinking adequately.
 - ⇒ Eliminating body waste.
 - ⇒ Sleeping and resting.
 - ⇒ Moving and maintaining a desirable posture.
 - ⇒ Selecting desirable clothing.
 - ⇒ Maintaining body temperature.
 - ⇒ Keeping body clean.
 - ⇒ Avoiding dangers in the environment both physical and psychological.
 - ⇒ Communicating with others in expressing emotions, needs, fears and opinions.
 - ⇒ Worshipping according to one's faith.
 - ⇒ Working in such a way that they feel a sense of accomplishment.
 - ⇒ Playing and participating in various forms of recreation.
 - ⇒ Running, discovering or satisfying the curiosity that leads to normal development and health using available resources.
 - b) Outline nurses' bills of rights.
 - ⇒ Compensation.
 - ⇒ Supplies.
 - ⇒ Promotion and career development.
 - ⇒ Continued learning.
 - ⇒ Risk allowance.
 - ⇒ Safe working environment.
 - ⇒ Autonomy/independence.
 - c) State functions of NCK
 - ⇒ Indexes student nurses aspiring to be nurses.
 - ⇒ Make provision for training, registration and enrolling of nurses.
 - ⇒ Advising the minister on matters concerning nursing.
 - ⇒ Describing badges, uniform by persons to be registered.
 - ⇒ Sets and marks exams for those ready to be nurses.
 - ⇒ Disciplines nurses for omissions and malpractice.

PART III-LAQ's

The Goal of nursing is to provide high quality nursing services to patients/clients:

- a) Describe the customers' bills of rights.
 - ⇒ Right to access care.
 - ⇒ Right to quality nursing practice.
 - ⇒ Right to informed consent.
 - ⇒ Right to information concerning disease, Rx and care.
 - ⇒ Right for privacy and confidentiality.
 - ⇒ Right to be treated with respect and dignity.
 - ⇒ Right for safety and healing environment.
 - ⇒ Right to refuse recommended plan of care and Rx.
 - ⇒ Right to be involved in planning care and Rx.
 - ⇒ Right to high quality care without discrimination.
- b) Outline five elements of an informed consent.
 - ❖ The nature of the procedure,
 - ❖ The risks and benefits of the procedure,
 - ❖ Reasonable alternatives,
 - ❖ Risks and benefits of alternatives,
 - ❖ Assessment of the patient's understanding of elements 1 through 4.
- c) State five roles/responsibilities of a Kenya Registered Community Health Nurse (KARCHN)
 - ⇒ Entrepreneur.
 - ⇒ Researcher.
 - ⇒ Care provider to patients.
 - ⇒ Educator.
 - ⇒ Change-agent.
 - ⇒ Client's advocate.
 - ⇒ Manager of health services.

SEMESTER

ONE PREGNANCY

PART I: MCQ's

1. The pelvis forms a bony canal through the fetus must pass during delivery. It is divided into two parts, namely:
 - a. The bony and oval pelvis.
 - b. The false and true pelvis.
 - c. The false and bony pelvis.
 - d. The true and triangular pelvis.
2. Which is the flared outer part of the pelvis?
 - a. The ischium.
 - b. The coccyx.
 - c. The ischial spine.
 - d. The ilium.
3. The bones which form the innominate bones are:
 - a. Ilium, iliac, ischium.
 - b. Pubis, iliac, ischium.
 - c. Pubis, ischial, iliac.
 - d. Ilium, ischium, pubis.

4.

5. Which are the ligaments that are between the sacrum and the ilium:

- a. Interpubicligaments.
 - b. Sacro-tuberousligaments.
 - c. [Sacro-iliac ligaments.](#)
 - d. Sacro-spinousligaments.
6. When measuring diameters, the measurements from the sacral promontory to a point 1.25cm down the posterior surface of symphysis pubis is known as:
 - a. Anatomical conjugate.
 - b. [Obstetrical conjugate.](#)
 - c. Diagonal conjugate.
 - d. Oblique conjugate.
7. The longest diameter of the pelvic outlet is:
 - a. [Antero-posterior.](#)
 - b. Transverse.
 - c. Oblique.
 - d. Intertuberous.
8. Ovulation is triggered by:
 - a. Follicle stimulating hormone.
 - b. A mid-cycle surge of luteinizing hormone.
 - c. Hormone from the follicular cells.
 - d. Hormones from the theca-intima.
9. Which hormone is detected in a pregnancy test:
 - a. Estrogen.
 - b. [Human chorionic gonadotrophin.](#)
 - c. Progesterone.
 - d. Testosterone.
10. A full term gravid uterus increases 10 times non – gravid uterus to measure: a. [7.5x5x2.5cm.](#)
 - b. 30x20x23cm.
 - c. 30x23x20cm.
 - d. 30x25x20cm.
11. The acidic state of the vagina at a pH of mainly to:
 - a. Promote the flow of spermatozoa.
 - b. Enhance sexual enjoyment.
 - c. [Inhibit growth of microbes.](#)
 - d. Promote the growth of microbes like the lactobacilli.
12. The placenta is fully functional as from:
 - a. [8-12 weeks.](#)
 - b. 12-16 weeks.
 - c. 12-14 weeks.
 - d. 6-8 weeks.
13. The normal head circumference of a newborn measures: a. 40-45cm.
 - b. [30-35cm.](#)
 - c. 33-37cm.
 - d. 32-38cm.
14. First physical examination of a newborn is done to:
 - a. Rule out abnormalities, estimate weight, and rule out birth injuries.
 - b. Rule out abnormality, estimate maturity, assess its health.

- c. Rule out abnormality, estimate maturity, and rule out birth injuries.
 - d. Assess the completeness of the placenta, determine maturity, and assess the health status of the placenta.
15. Moulding is defined as:
- a. Alteration of skull bone due to obstructed labor.
 - b. [Overlapping of the fetal sutures during labor.](#)
 - c. Swelling of the fetal skull due to obstructed labor.
 - d. Overriding of the skull bones due to obstructed labor.
16. Which one of the following investigations confirms lung maturity during pregnancy:
- a. Surfactant factor.
 - b. [Lecithin in amniotic fluid.](#)
 - c. Chest x-ray.
 - d. Glucuronyl transferase.
17. When a baby is left in wet clothing it loses heat by:
- a. Radiation.
 - b. Conduction.
 - c. Convection.
 - d. [Evaporation.](#)
18. The care of the baby following delivery of the head (crowning) is:
- a. Check the cord around the neck, clear the airway.
 - b. [Clear the airway; check the cord around the neck.](#)
 - c. Check the cord around the neck, score the baby.
 - d. Score the baby; check the cord around the neck.
19. Which of the following appears soon after birth:
- a. Cephalohematoma.
 - b. Caput succedaneum.
 - c. Spina bifida.
 - d. Meningocele.
20. The nurse documents the neonate's anterior fontanelle as normal because it is:
- a. Oval.
 - b. Square.
 - c. [Diamond shaped.](#)
 - d. Triangular.
21. During the first feeding the nurse observes the neonate gagging on mucus and becoming cyanotic. The nurse should first:
- a. Start mouth-to-mouth resuscitation.
 - b. Raise the neonate's head and pat the back gently.
 - c. Raise the neonate's resuscitation team.
 - d. [Clear the neonate's airway with suction or gravity.](#)
22. A neonate with low APGAR score is given vitamin K injection soon after delivery and the nurse tells the mother that the injection is given because:
- a. Neonates have no gastrointestinal bacteria.
 - b. [Neonates are susceptible to clotting disorder.](#)
 - c. Hemolysis of the fetal red blood cells destroys vitamin K.
 - d. The neonate's liver does not produce sufficient vitamin K.

23. While performing a gestational age assessment the nurse determines that the neonate is at term when he/she observes the neonate's:
 - a. Early lying flat against the head.
 - b. Absence of a rugal line in the scrotum.
 - c. Sole creases covering the entire foot.
 - d. Absence of tremors.
24. When the neonate is 2 hours old, the nurse notes increased respiratory rate and tremors of the hands and feet. A priority nursing diagnosis is:
 - a. Ineffective airway clearance related to post-term gestational age.
 - b. [Hyperthermia related to large size and use of radiant warmer.](#)
 - c. Decreased cardiac output related to difficulty breathing.
 - d. Altered nutrition less than the body requirement related to depleted glycogen.
25. Laboratory findings indicate that the neonate's hemoglobin is 16g/100ml of blood. The nurse should:
 - a. Document this as normal findings.
 - b. Assess for symptoms of polycythemia.
 - c. [Recheck hemoglobin in 1 hour.](#)
 - d. Assess for skin pallor and anemia.

PART II: SAQ's

1. Describe the process of adaptation of fetal circulation soon after birth (10 marks).
2. Outline stages of a fertilized ovum until it is a fetus (6 marks)
3. Explain the physiological changes that take place in the breast of a pregnant woman (6 marks)
4. State three indications of first examination of a newborn (3 marks)

PART III: LAQ's


1. Rose aged 18 years para 0+0 comes to clinic for the first time in her second trimester.
 - a) Outline the aims of antenatal care (5 marks)
 - b) Describe the management of Rose during this first visit (15 marks)
2. State five characteristics of a full-term neonate (6 marks)

MIDWIFERY:

EXAMINATION

NUMBER: [PART I: MCQ's](#)

1. The non-gravid uterus measures:
 - [7.5cm x 5.0cm x 2.5cm](#)
2. Where is the fundus found?
 - [The end of the tube.](#)
3. Progesterone works on:
 - [Tissues previously affected by estrogen.](#)
4. The fetus starts passing urine at the:
 - [10th week of gestation.](#)

5. The fetus consists of a double layer of membrane known as:
 - Amnion.
 - Chorion.
6. Neonatal death occurs:
 - First week
7. During development of fertilized ovum, the inner cell mass forms:
 - Blastocyst.
8. The presenting diameters in the vertex presentation:
 - Suboccipital frontal diameter and biparietal diameters.
9. During vaginal examination for a mother in labor, brow presentation is diagnosed by feeling the:
 - 
10. Ductus venosus connects the:
 - Umbilical vein to the inferior vena cava.
- 11.11.
 - a) Schutze method of placental delivery:-
 - Formation of retro placental clot, weight of the clot helps peel the membranes off the uterine wall, clot becomes enclosed in a membranous bag as placenta descends fetal surface first.
 - b) Mathew and Duncan method of placental delivery:
 - Placenta descends, slipping sideways, maternal surface first.
12. Drying the baby at birth helps to minimize heat loss
- by: 13.
 - a) The denominator is the part of presentation that indicates position:- true
 - b) Ali is the relationship of the fetal head and the limb to its trunk:- false
 - c) Osander's sign is increased pulsation felt in the lateral fornices of the vagina:- true
 - d) Fetal heart is listened through the trunk if possible is cephalic:- false
14. During pregnancy the heart has a greater blood volume to pump around the body:
 - The increased output is 20-4%
15. The safe motherhood initiative focuses on:
 - The well-being of the mother.
16. In fetal circulation exchange of oxygen, nutrients and elimination of waste products are formed by:
 - Placenta.
17. By 9th and 10th day of postnatal the uterus is usually palpated:
18. State 6 pillars of safe motherhood:
 - Family planning.
 - Essential obstetric care.
 - Clean and safe delivery.
 - FANC.
 - Postabortive care.
 - Neonatal care.
 - Targeted postpartum care.
 - Prevention of mother to child transmission of HIV/AIDS.

PART II: SAQ's

1. State major functions of the placenta.
 - Nutritive.

- Respiratory.
 - Excretory.
 - Endocrine.
 - Barrier—some diseases and drugs cannot pass from mother to the fetus
2. List constituents of amniotic fluid.
 - 99% water.
 - Mineral salts.
 - Urea—from fetal urine
 - Protein.
 - Cells from the fetus.
 - Lanugo.
 - Vernix caseosa.
3. List the temporary structures in fetal circulation.
 - Ductus venosus.
 - Foramen ovale.
 - Ductus arteriosus.
 - Hypogastric arteries.
4. Define:
 - a) Lie
 - b) Presentation:
 - c) Denominator:
 - d) Position:
5. Match the following:
 - a) Form the nervous system and skin: - **Ectoderm**
 - b) Form the muscles, bones and circulatory system: - **Mesoderm**.
 - c) Form the alimentary canal: - **Endoderm**
6. Explain:
 - a) Ectoderm.
 - b) Mesoderm.
 - c) Endoderm.
 - d) Fundal height: - **distance from the pubic bone to the top of the uterus.**
7. List danger signs in pregnancy.
 - Blurred vision due to hypertension and anemia.
 - Labored breathing.
 - Pre-mature labor pains.
 - Vaginal bleeding.
 - Swelling of face, hands and legs.
 - History of convulsions.
 - Reduced fetal movement.
8. State causes of normal onset of labor.
 - Oxytocin hormone—causes uterine muscle to contract.
 - Oxytocinase enzyme—stops Oxytocin from working during pregnancy.
 - Progesterone hormone—level falls at end of pregnancy for relaxing.
 - Prostaglandins—stimulate pituitary gland to produce Oxytocin.
 - Increased contractibility.
 - Engagement of head.
 - Overdistension.

9. Functions of amniotic fluid: During Pregnancy:

- Allows free movement of the fetus and growth.
- Absorb shock and prevents injury.
- Provides the correct temperature for the fetus to live

in. During Labor:

- Equalizes uterine pressure.
- Prevents interference with placental circulation during contraction.
- Washes birth canal.
- Cervical dilatation.

10. Compensatory factors in fetal circulation:

- Fetal heart rate is fast to move blood quicker round the body.
- Fetus has extra RBCs in intrauterine life that are able to carry more oxygen.
- Fetus has special hemoglobin that combines very easily with oxygen in intrauterine life.

PART III: LAQ's

1. Mother X arrives in your clinic for check-up. This is her first visit time on P/E she is healthy and well groomed. On abdominal examination, her fundus is 32 weeks of gestation:

a) Explain how you will develop and implement her individual birth plan before delivery:

- Place of labor.
- Finances.
- Transport.
- Birth partner/companion.
- Identification of skilled labor.
- Identify decision maker in case of emergency.

b) List types of lab investigations mother X will be done.

2. Baby Z has just been born and the Apgar score is 8/10.

a) Explain the Apgar score grading.

b) Describe the subsequent observation that you will perform on baby Z.

MORE QUESTIONS:

1. State 5 ways in which infection can occur during labor:

- Client can infect herself – vulva, rectum or skin.
- Midwife.
- Surrounding area.
- Equipments.

2. Show the difference between true and false labor. Uterine Contractions:

True labor	False labor
Always present	Not always present.
Painful	Not always painful.
Rarely exceed 60 seconds	May last 3-4 minutes.
Often accompanied by backache	Not accompanied by backache

The Cervix:

True labor	False labor
Cervix is shortened	Cervix not shortened
Os is dilating	Os not dilating
Membranes felt tense during contractions	Membranes not tense
Show is usually present	No show.

3. State the true signs of labor.
 - Dilatation of the cervix.
 - Regular painful uterine contraction.
4. Indicate 5 important features that develop between 4-8 weeks in embryonic life of a fetus.
 - Appears C shape.
 - Head becomes prominent accounting for 1/3 of the entire embryo.
 - Nervous system begins to form.
 - Extremities appear as buds.
 - Heart appears as a rudimentary form as a bulge on the anterior cervix.
 - Eyes, ears and nose appear in rudimentary form.
5. List temporary structures in fetal circulation: -repetition
6. Mrs. Y reports to your clinic for the first time. On P/Es she's 28 weeks of pregnancy; her LMP was 19th November 2013.
 - a) Calculate her expected date of delivery and her gestation

date. 19th 11 2013

07 03 xxxx

26 08 2014

- b) Explain how you will implement the individual birth plan: -repeated
7. Another completed her second stage, describe her active Mnx of 3rd stage of labour.
8. Baby Zoe is born and has a good score 10/10 minutes
 - a) Explain AGPAR score.
 - b) Describe the subsequent Mnx care of baby Zoe.
 - c)

KENYA MEDICAL TRAINING COLLEGE

-SEMESTER ONE

LABOR

PART I: MCQ's

1. The true signs of labor include:
 - a) Contractions radiate to the back contraction, rarely exceed 60 seconds.
 - b) Rhythmic contractions are painless.
 - c) Contractions are on the low abdomen only there is attachment of the cervix.
 - d) Cervical attachment, pain is relieved by analgesics.
2. When assessing a mother in labor the midwife will consider the fetal head to be engaged when:

- a) Presenting part through the pelvis.
- b) The fetal head rotates as it passes through the ischial spines.
- c) The fetal head extends as it passes under the symphysis.
- d) The bi-lateral diameter passes the pelvic inlet.
3. The mechanism of labor that allows the fetal head to present itself to fit the widest anteroposterior diameter of the pelvic cavity is:
 - a) Flexion.
 - b) Internal.
 - c) Descent.
 - d) Extension.
4. The anteroposterior diameter of the pelvic outlet measures:
 - a) 12 cm.
 - b) 13 cm.
 - c) 11 cm.
 - d) 10 cm.
5. Uterine contractions are controlled by the:
 - a) Central nervous system.
 - b) Sympathetic nervous system.
 - c) Peripheral nervous system.
 - d) Autonomic nervous system.
6. The part of the uterus in which a contraction begins is:
 - a) Cornua.
 - b) Fundus.
 - c) Isthmus.
 - d) The body or corpus.
7. First stage of labor is defined as a period from the onset of:
 - a) Labor pains to full dilatation of cervix.
 - b) Labor to crowning of the head.
 - c) True labor to delivery.
8. The management of a normal mother during the first 48 hours involves:
 - a) Examining the breast, treating the infection, monitor fluid intake/output.
 - b) Inspecting the iodine loss, observing the initiation of lactation, assessing involution of the uterus.
 - c) Encouraging postnatal exercise, giving plenty of oral fluids daily, urinalysis.
 - d) Encouraging early ambulation, totally high vaginal swab taking vital signs.
9. For question 9 indicate whether the following statements are true or false on the answer booklet provided:
 - a) Oxytocin hormone prepares the myoepithelial milk letdown reflex.....
 - b) Fall in Prolactin level enhances the proliferation of lactiferous ducts.....
10. The continuity of care of a postnatal mother after discharge mainly depends on:
 - a) The number of postnatal visits that a midwife can make.
 - b) The ability of the midwife to detect problems and intervene.
 - c) Adequate health messages shared with the mother.
 - d) Availability of health facility.

PART II: SAQ's

1. Outline the health messages that can be shared with a mother during 4th stage of labor (5marks).
2. State five factors that can cause onset of labor (5marks)
 - Oxytocin hormone.
 - Oxytocinase enzyme.
 - Progesterone hormone.
 - Prostaglandins.
 - Increased contractility.
 - Engagement of head.
 - Overdistension.
3. State three functions of the pelvic floor muscles (3marks)
4. State four benefits of breastfeeding (4marks)
 - Breast milk is suited to baby and easy to digest.
 - Breastfeeding causes less work.
 - It is not expensive.
 - Promotes relationship between mother and baby.
 - Milk is always fresh.
 - Milk contains antibodies.
 - Sterile and hence no risk of contamination.
5. Differentiate between true and false labor (3marks)

True Labor	False Labor
Uterine contractions always present.	Uterine contractions not always present.
Painful uterine contractions.	Contractions not always painful.
Contractions rarely exceed 60 seconds.	Contractions may last 3 – 4 minutes.
Contractions often accompanied by backache.	Contractions not accompanied by backache.
Cervix is shortened.	Cervix not shortened.
Cervical Os is dilating	Cervical Os not dilating.
Cervical membranes feel tense during contractions.	Cervical membranes no tense.
Show is usually present in the cervix.	No show.

PART III: LAQ's

1. Mrs. KI arrives into labor and delivery unit at a gestation of 38 weeks. She complains of low abdominal pain with some vaginal discharge. On examination you note some pouring of amniotic fluid at the posterior frinx with cervical dilatation of 4 cm.
 - a) Define labor (2marks)
 - b) Describe the management of Mrs. KI (18marks)

REPRODUCTIVE

HEALTHEND-

SEMESTER EXAMS

MULTIPLE CHOICE QUESTIONS (MCQs)

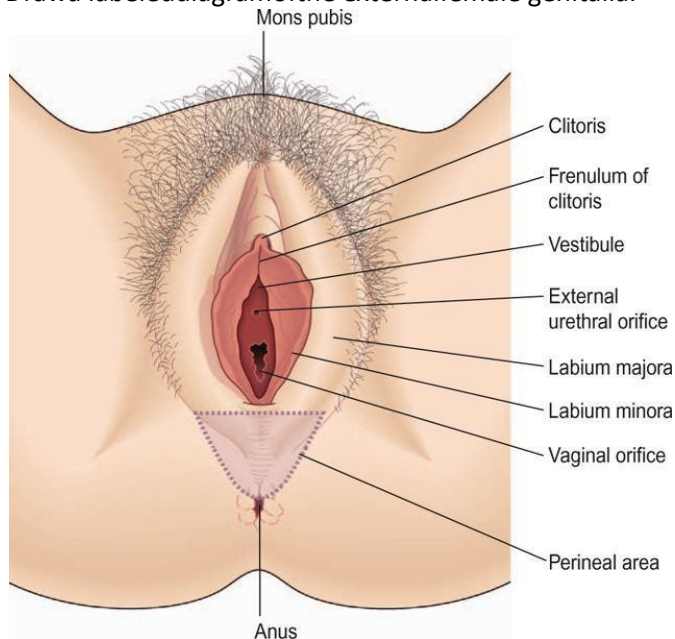
1. The deep muscles of the pelvic floor include:

- a) Pubococcyganeous.
- b) The bulbocavernosus muscles.
- c) Ischiocavernosus.

- d) Transverse perineal.
2. The bones that form the pelvic are:
 - a) 5 coccyx, 2 ileum, 2 ischium.
 - b) 2 pubis, ileum, ischium.
 - c) 2 coccyx, 2 pubis, 2 ileum.
 - d) 2 ischium, 2 pubis, 5 coccyx.
 3. The non-gravid uterus measures (cm):
 - a) 7.5x5x2
 - b) 7.5x5x2.5
 - c) 7x5x2.5
 - d) 7.5x5.5x2
 4. An adolescent is a person aged:
 - a) 13-19 years.
 - b) 15-24 years.
 - c) 15-19 years.
 - d) 11-24 years.
 5. The type of pelvis that is kidney shaped is not favorable for delivery because:
 - a) It has a wide transverse diameter.
 - b) It has reduced anteroposterior diameter.
 - c) It has reduced transverse diameter.
 - d) It has reduced outlet diameter.
 6. The active hormone during the proliferative phase of the menstrual cycle is:
 - a) Luteinising hormone.
 - b) Progesterone.
 - c) Oestrogen.
 - d) Follicle stimulating hormone.
 7. The hormone responsible for breast milk ejection is:
 - a) Prolactin.
 - b) Oxytocin.
 - c) Human gonadotrophin hormone.
 - d) Progesterone.
 8. Integrated youth friendly approach is nowhere:
 - a) Only youths get services.
 - b) Only family planning services are offered.
 - c) Youth and other members of the public get services.
 - d) All services are offered to youth only.
 9. Men and women who derive sexual gratification by being held, kissed or cuddled by an admired opposite sex are:
 - a) Foudlists.
 - b) Necrophilia.
 - c) Paraphilias.
 10. Men or women derive sexual satisfaction by passing and handling faeces especially in a swimming pool or bath basin are:
 - a) Co-prophilia.
 - b) Tele-scaltogia.
 - c) Frotteurism.

Short Answer Questions:

1. Draw a labeled diagram of the external female genitalia.



2. State four problems faced by youths 15-19 years.
 - ❖ Peer pressure.
 - ❖ Early pregnancies.
 - ❖ Drug abuse.
 - ❖ High risk of contracting STI's.
3. State any four accessory glands of the male reproductive system.
 - ❖ Prostate gland.
 - ❖ Seminal vesicle gland.
 - ❖ Bulbourethral gland.
 - ❖ Epididymis.
4. State any six structures of the lactating breast.
 - ❖ Areolar responsible for production of milk and storage.
 - ❖ Nipple in which baby sucks.
 - ❖ Lactiferous ducts which transmit milk produced from lobes.
 - ❖ Lobes which are responsible to secrete milk and colostrum.
 - ❖ Highly vascularised to enable milk production.
 - ❖ Dark primary areolar.

Long Answer Questions:

1. Describe the hormones involved in fertility regulation of a woman.
 - ❖ Oestrogen hormone is responsible for the growth of endometrium which in turn receives fertilized ovum.
 - ❖ Human chorionic gonadotrophin is produced during pregnancy to inhibit production of oestrogen and progesterone which in turn prevent ovulation.
 - ❖ Luteinising hormone is responsible for activating progesterone to heal the affected endometrium for preparation of receiving ovum.
 - ❖ Prolactin is responsible for development of breast during pregnancy.
 - ❖ Oestrogen hormone acts on breast to grow at puberty.

- ❖ Follicle stimulating hormone is responsible for initiating ovulation.
 - ❖ Follicle stimulating hormone also helps in activating oestrogen for development of endometrial wall ready to receive fertilized ovum.
2. Describe reasons why youths don't utilize youth friendly services.
- ❖ Ignorance.
 - ❖ Unfavorable conditions.
 - ❖ Unawareness.
 - ❖ Fear.
 - ❖ Harsh/unfavorable caregivers

REPRODUCTIVE HEALTH:

PART I: MCQ's

1. Innominate bone is made of:
 - Pubis.
 - Ilium.
 - Ischium.
2. Structures that form the posterior fontanel are:
3. Differentiate between reproductive health and family planning:
 - Reproductive Health includes concept of male involvement.
4. Area enclosed by two labia minora is called:
 - Vestibule.
5. Fertilization takes place at:
 - Ampulla.
6. Normal menstrual cycle takes:
 - 3 –5 days
7. Testes in the utero descent at:
 - By 28th weeks
8. Organ that lies superior to the vagina is;

PART II: SAQ's

1. Draw a well labeled diagram of the gynaecoid pelvis and indicate the characteristic feature.
 - Classic pelvis for females
 - It is well rounded in all directions and wide.
 - It is well suited for supporting delivery.
2. State five sexual problems that face the adolescents in the community today.
3. State five services offered in a Youth Friendly Clinic.
 - Sexual and reproductive health counseling.
 - Abortive services.
 - Sexual abuse counseling.
 - Relationship and sexuality counseling.
 - Sexually transmitted infection counseling, testing and prevention.
 - Contraceptive counseling and provision including E.C
4. State four male sexual dysfunctions.

- **Premature ejaculation**:-it occurs when a man ejaculates sooner during sexual intercourse than he or his partner would like.
- **Retarded ejaculation**:- it is a condition in which it takes an extended period of sexual climax and releases semen from the penis i.e. ejaculation
- **Erectile dysfunction (impotence)**:- it is the inability to get and keep an erection firm enough for sex.
- **Retrograde ejaculation**:- occurs when semen enters the bladder instead of emerging through the penis during orgasm.
- **Difficult arousal and desire.**

PART III: LAQ's

1. Describe the menstrual cycle:

- It is a series of four phases affecting the tissue of the endometrium.
- Changes are caused by the hormones from pituitary gland and also estrogen and progesterone.
 - i) **Regeneration stage**:- begins when menstruation stops and lasts for 2 days. The remaining glands and stroma cells multiply and blood is absorbed. Endometrium is reformed.
 - ii) **Proliferative stage**:- lasts until ovulation (14 days before the onset of next menstrual period). Estrogen causes the growth of the endometrium.
 - iii) **Luteal stage**:- pre-menstrual phase. Begins after ovulation. Progesterone makes the endometrium to grow more. Glands increase in size, capillaries are distended with blood and endometrium is ready to receive fertilized ovum. If fertilization does not occur, ovum dies and corpus luteum degenerates. Level of estrogen and progesterone falls and endometrium starts to die.
 - iv) **Menstrual stage**:- characterized by menstrual bleeding per vagina. Superficial layer of endometrium is shed.

2. Describe the important hormones that control the human sexual characteristics.

- Testosterone hormone in males directly induces growth of the testicles and penis. Increases size and mass of muscles, vocal cords and bones deepening the voice and changing the shape of the face and skeleton.
- Estradiol hormone in females causes breasts to develop.
- Estrogen hormone widens the pelvis and increases the amount of body fats in hips, thighs, buttocks and breasts. It also induces growth of uterus, proliferation of the endometrium and menses.

3. Draw a well-labeled diagram of the pelvis indicating different diameters and its landmarks.

4. Explain the types of pelvis.

- **Platypelloid pelvis**:- it is wide but flat and may still allow vaginal birth.
- **Android pelvis**:- it is narrow and heart-shaped found in men.
- **Anthropoid pelvis**:- it is narrow and oval in shape and resembles an ape.
- **Gynaecoid pelvis**:- it is wide and well rounded in all directions and is classic female pelvis.

5. State the functions of prostate gland.

6.

Draw the diagram of the male reproductive organ and indicate the flow of the spermatozoa.

PSYCHOLOGY AND SOCIAL ANTHROPOLOGY:

1. State the five (5) stages of psychosexual development.

i. Oral stage 0-1^{1/2} yrs

The driving energy is from the mouth because it wants to get custom of the community where he is.

ii. Anal stage

This is done through the anal opening so that they are satisfied. Disorder: obsessively smart, O.C.N (OBSESSIVE COMPULSIVE NEUROSIS)

iii. Phallic stage 4-6 yrs

The energy comes from genitals.

Disorder: doing against the community e.g. homosexuality.

iv. Latency phase 7-12 yrs

School age where the child is quiet

This stage they start learning their customs

v. Genital stage (13-death)

Must get satisfied from opposite sex

2. State four (4) defense mechanisms used to reduce anxiety.

- Displacement – discharging feelings of hostility to a less powerful person or object.
- Denial – refusal to acknowledge something disturbing.
- Repression – preventing painful thoughts from entering into conscious mind.
- Regression – retreating to early stages of development where behavior will be much immature.
- Rationalization – blaming others for one's fault.

3. Explain the three (3) types of kinship relationship existing among family members.

- Blood kinship (consanguinity) – between the child and parents.
- Affinity – as a result of love leading to their marriage.
- Adoption kinship – legally incorporated child in a family.

4. State two (2) characteristics of culture.

- Not genetically inherited.
- Learnt through observation, imitation or instruction (socially transmitted).
- It is dynamic.
- Handed down from generation to generation.

END OF SEMESTER
EXAMS BEHAVIORAL SCIENCES
PSYCHOLOGY AND SOCIAL ANTHROPOLOGY

PART I {MCQ's}

1. Infections which can cross the blood – placenta barrier to affect a growing fetus in the mother's uterus include:-

REVISION QUESTIONS SEM 1 - EDITION 1

2018

- ✓ Poliomyelitis, syphilis, German measles.
2. A defense mechanism characterized by an individual discharging feelings of hostility to a weaker object or person is:-
 - ✓ Displacement.
3. A type of stress which may arise due to an achievement which is too good is:-
 - ✓ Eustress.
4. A crisis experienced by adolescents according to Erick Erickson's stages of development is:-
 - ✓ Identity versus identity diffusion.
5. Constant interplay among the ID, Ego and Super Ego personality structure is:-
 - ✓ Psychodynamics.
6. Characteristics of an introverted personality include:-
 - ✓ Shy, self-centered, seclusive.
7. The psycho-sexual theory of personality development is associated with:-
 - ✓ Sigmund Freud.
8. The personality structure a child has at birth is:-
 - ✓ ID
9. A person who attained self-actualization has the following characteristics:-
 - ✓ Satisfied and generous.
10. The best way to cope with stress is by:-
 - ✓ Emotional expression.
11. Survival needs according to Abraham Maslow's theory include;
 - ✓ Water, Food, Air.
12. According to Erick Erickson's stages of development. The task associated with adolescent state is:-
 - ✓ Identity versus identity diffusion.
13. A defense mechanism in which an individual discharges feelings of hostility to a less powerful person or object is:-
 - ✓ Displacement.
14. An observable action in an individual is:-
 - ✓ Behavior.

PART II {SAQ's}

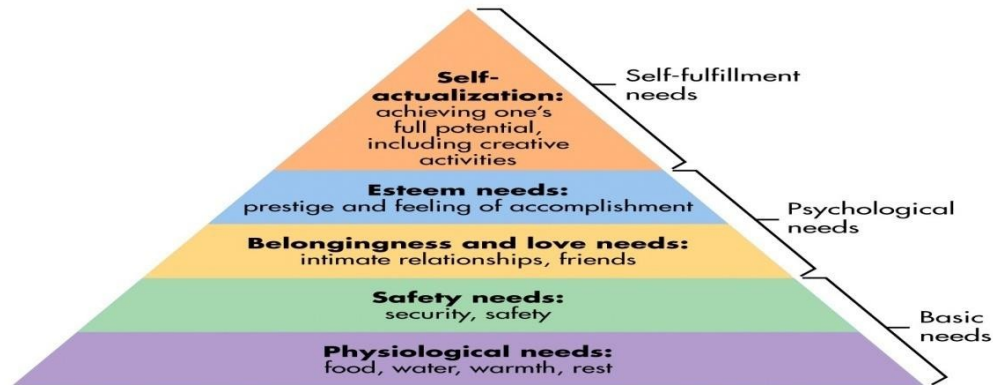
1. Define the following concepts as used in psychology:-
 - ✓ Personality – sum total of physical and psychological characteristics that makes an individual unique.
 - ✓ Growth – physical increase in size.
 - ✓ Motivation – driving and pulling forces which result in persistent behavior directed towards certain goals.
 - ✓ Phobia – inappropriate/irrational fear of people, objects, animals, events or ideas.
2. State four (4) defense mechanisms used to reduce anxiety.
 - ✓ Displacement – discharging feelings of hostility to a less powerful person or object.
 - ✓ Denial – refusal to acknowledge something disturbing.
 - ✓ Repression – preventing painful thoughts from entering into conscious mind.

- ✓ Regression – retreating to early stages of development where behavior will be much immature.
 - ✓ Rationalization – blaming others for one's fault.
3. State four (4) characteristics of a person with a positive self-concept (i.e. optimistic person)

- ✓ Proactive– takes action and also gets things done.
 - ✓ Persistent–goal oriented so failure triggers new tries not giving up.
 - ✓ Creative –tries multiple choices when one thing fails.
 - ✓ Confident– future is bright.
4. Draw a well-labeled diagram to illustrate the hierarchy of needs according to Abraham Maslow's theory (RP in LAQ's)
- Draw in question 2 of LAQ's
5. State 5 branches of psychology.
- ✓ Educational.
 - ✓ Cognitive.
 - ✓ Clinical.
 - ✓ Social.
 - ✓ Developmental.
 - ✓ Experimental.
6. State 5 stages of psychosexual development.
- ✓ Oral stage.
 - ✓ Anal stage.
 - ✓ Phallic stage.
 - ✓ Latency stage.
 - ✓ Genital
- stage. PART III (LAQ's)
1. Health workers require knowledge on crisis knowledge on crisis and crisis intervention.
- i) Define crisis– state of disequilibrium and disorganization.
 - ii) State six (6) types of crisis.
 - ✓ Natural crisis.
 - ✓ Technological.
 - ✓ Confrontation.
 - ✓ Malevolence.
 - ✓ Rumors.
 - ✓ Workplace violence.
 - ✓ Organization misdeeds.
 - iii) Describe the steps of crisis intervention.
 - ✓ Psychosocial and lethality assessment.
 - ✓ Rapidly establish rapport.
 - ✓ Identify the major problems or crisis precipitants.
 - ✓ Deal with feelings and emotions.
 - ✓ Generate and explore alternatives.
 - ✓ Implement an action plan.
 - ✓ Follow – up.
2. Knowledge of Abraham Maslow's hierarchy of human needs theory is paramount in enhancing patient's care.
- a. Define need:-

It is a physical or psychological condition which if present will increase the satisfaction of an individual.

- b. Draw a well labeled diagram to illustrate the levels of human needs according to Abraham Maslow's theory.



- c. Describe the role of a nurse in assisting a patient to meet those physiologic levels of needs.

- ✓ Oxygen – constantly evaluate the oxygenation status of the patient.
- ✓ Feeding – nurse helps by feeding the client, monitoring calorie counts and maintains alternative methods of nutrition e.g. tubing and I.V. infusions.
- ✓ Sleep and rest – nurse assists enough sleep and rest by providing safe, comfortable and quiet surroundings.
- ✓ Sexual gratification – nurse will need to be aware of sexuality issues when care is given.
- ✓ Activity and exercise – nurse can assist the client to obtain needed exercise e.g. encouraging a person to walk after surgery.
- ✓ Temperature regulation – the nurse will assist clients to meet the need for temperature regulation in cases such as a severe burn or high fever.
- ✓ Water and fluids – nurse can assist by measuring intake and output, weighing the client daily and observing I.V. infusion of fluids.

BEHAVIORAL
SCIENCE SOCIAL
ANTHROPOLOGY PART

II: SAQ's

1. A cultural diplomacy in which all cultures are viewed as equal and important is best referred to as.
 - -Cultural relativism
2. A type of marriage in which one man is married to more than one wife is:
 - -Polygamy
3. Norms can be defined as:
 - -Socially acceptable patterns of behavior in a society
4. The type of kinship which exists between a husband and wife is
 - -Affinity
5. The type of status enjoyed by a prince or princess is:
 - -Ascribed status.
6. Payment made by a man to parents of his wife to be is:
 - -Bride price

7. A religious belief system in which an individual believes in many gods is:
 - -Polytheism
8. A cultural control system in which marriage among members of the same lineage is prohibited is:
 - -Exogamy
9. The process of ranking members of society according to wealth, prestige or power is:
 - -Social stratification
10. Culture can be defined as:
 - -The whole of man's learnt and socially influenced characteristics.
 - -A traditional way of doing things.
11. The type of norms practiced by a small subset of a society but is disapproved by the larger majority is:-
 - -Deviant norms
12. Sanctions applied to individuals who violate group norms to discourage disapproved behavior is :-
 -
13. A child from a poor background can work hard in school to attain the highest level and earn respect and status as a professor. This type of status is :-
 - -Achieved
 -
14. A tendency to look at other cultures as inferior to your own is :-
 - -Ethnocentrism.
15. The type of kinship which exists among a mother and her son is :-
 - -Blood/consanguinity relationship.
16. In polytheism:-
 - -Individuals religiously believe in many gods.
17. The term 'exogamy' in marriage refers to:-
 - -Marriage among members of unrelated lineage.
18. The process by which culture is passed from one generation to the other in a society is :-
 - -Enculturation.
19. A type of marriage in which one woman is married to more than one husband is :-
 - -Polyandry.

PART II (SAQ's)

1. State the 4 branches of anthropology.
 - ❖ Pre-historic archeological anthropology – past human cultures.
 - ❖ Biological anthropology – long term development of the human organism.
 - ❖ Linguistic anthropology – influence of language in social life.
 - ❖ Social and cultural anthropology – workings of societies around the world.
2. Explain 3 characteristics of culture.
 - ❖ Not genetically inherited.
 - ❖ Learnt through observation, imitation or instruction (socially transmitted).
 - ❖ It is dynamic.
 - ❖ Handed down from generation to generation.
3. State 4 health effects of rural to urban migration of population.
 - ❖ Outbreak of diseases and spread of communicable diseases due to overcrowding.

- ❖ Improper disposal of waste materials leading to outbreak of diseases.
 - ❖ Unemployment leading to inadequate resources which lead to poor health as a result of poor feeding [poverty]
 - ❖ High rate of social evils including immorality and high crime rates.
4. Explain 3 types of kinship relationships.
- ❖ Blood kinship (consanguinity) – between the child and parents.
 - ❖ Affinity – as a result of love leading to their marriage.
 - ❖ Adoption kinship – legally incorporated child in a

family. PART III (LAQ's)

1. Religion is important in promoting the well-being of individuals.
 - a. Define religion – the belief in and worship of a superhuman controlling power, especially a personal God or gods.
 - b. Describe with examples how religion can promote the well-being of individuals.
 - ❖ Source of hope and optimism.
 - ❖ Promotes feelings of belongingness.
 - ❖ Can boost self-esteem.
 - ❖ Provides protection from existential threats.
 - c. State 4 types of religious beliefs
 - ❖ Monotheism – acknowledges the existence of only one god.
 - ❖ Polytheism – honors more than one god but not in dualistic relationship.
 - ❖ Atheistic – expressly states that there are no divine beings (lack of supernatural beings)
 - ❖ Non-theistic – does not center upon the existence of any deities, but it does not deny their existence either.
2. State characteristics of a person with positive self-concept i.e. optimistic person
 - ❖ Proactive – takes action and also gets things done.
 - ❖ Persistent – goal oriented so failure triggers new tries not giving up.
 - ❖ Creative – tries multiple choices when one thing fails.
 - ❖ Confident – future is bright.
3. Explain the three types of kinship relationships existing among family members.
 - ❖ Blood/consanguinity – child and her mother.
 - ❖ Adoption – children legally incorporated in a family.
 - ❖ Affinity – occurs because of love and marriage.
4. Describe 5 functions of religion in relation to health of individuals.
5. State 4 health-related effects of social change due to rural – urban migration of population.
 - ❖ Poor sanitation may lead to outbreak of diseases such as cholera.
 - ❖ Overcrowding may result into spread of communicable diseases.
 - ❖ Poor economic status may lead into inadequate/shortage of food leading to malnourished children and also leading to their deaths.
 - ❖ As social evils such as immorality may result into spread of STI's including HIV.
6. A family is the most basic institution which gives birth to other social institutions.
 - a) Define family.
 - ❖ Most basic social institution comprising of one or two parents with or without offspring whose function is to nurture and nurture offspring.
 - b) Name and describe the composition of 2 types of family.

- ❖ Nuclear family—married couples and their offspring in a common residence.
- ❖ Extended family—two or more nuclear families.
- c) Describe the primary functions of a family.
 - ❖ Spiritual functions.
 - ❖ Nurturance.
 - ❖ Reproduction.
 - ❖ Security.
 - ❖ Legal function.
 - ❖ Regulation of sexual behavior.
 - ❖ Economic function.

COMMUNICATION MODULE

CAT TIME ALLOWED: 11½ HRS

PART A: CRITICAL THINKING (20 MARKS)

MCQ's

1. Critical thinking is important because:-
 - a) It helps one to live long.
 - b) It helps one to pass in exams.
 - c) Quality of our thought determines quality of our life.
 - d) It helps team leaders to put members together.
 2. A critical thinker must be:-
 - a) Egocentric.
 - b) Sociocentric.
 - c) Dependent on others for decision making.
 - d) Open minded.
 3. Critical thinking skills entail:-
 - a) Problem solving, reasoning, analyzing.
 - b) Evaluating, arguments, decision making.
 - c) Analyzing, conflicts, empathy.
 - d) Questioning, guiding and giving information.
 4. Cognitive skills in critical thinking include:-
 - a) Deciding for others, advising.
 - b) Reflection, Divergent thinking.
 - c) Advising, Reasoning.
 - d) Questioning, guiding and giving information.
- For questions 5, indicate whether the statements given are true or false:-
5. a) Critical thinking directly impacts decision making
 - b) Critical thinking depends on our own thinking only

SAQ's

1. State any five (5) barriers to critical thinking.
2. IDEAL is an acronym used in problem solving skills, briefly explain its meaning.

PART B: COMMUNICATION PROCESS

(20MKS) MCQ's

1. Communication involves:
 - a) Intrapersonal information sharing.
 - b) Interpersonal information sharing.
 - c) Goal setting.
 - d) Counseling.
2. Nonverbal communication include:
 - a) Letter writing.
 - b) Use of media.
 - c) Face to face communication.
 - d) Crying.
3. The main objective of any communication is:
 - a) Give information to the receiver.
 - b) Command the receiver and expect feedback.
 - c) Understand what you are saying by the receiver.
 - d) Explaining the information over and over again.
4. In communication process, 'Noise' refers to:
 - a) Any form of interference.
 - b) External interference.
 - c) Internal interference.
 - d) Noisy environment.
5. Effective (Active) listening involves:
 - a) Avoiding direct eye contact to encourage the speaker to continue talking.
 - b) Focusing fully on the speaker.
 - c) Interrupting when necessary for clarification.
 - d) Waiting for your turn to take.

SAQ's

1. By aid of a diagram: describe the communication process.
2. State any five (5) communication techniques that a nurse may use in history taking.
 - Silence.
 - Restating.
 - Accepting.
 - Recognition.
 - Reflecting.

PART C: COUNSELLING PROCESS (15 MARKS) MCQ's

CQ's

1. Counseling is:
 - a) Giving advice.
 - b) Giving information and assisting in problem solving.
 - c) Solving clients' problem.
 - d) Sympathizing with the client.
2. The 1st step of the counseling process is:
 - a) Assessment.

- b) Goal setting.
- c) Relationship building.
- d) Intervention.
- 3. Therapeutic relationship in counseling:
 - a) Create an emotional attachment between the two parts.
 - b) Create an atmosphere of sympathy and understanding.
 - c) Create a perfect ideal confidentiality of information.
 - d) Model a healthy interpersonal relationship.
- 4. Assessment as a step in the counseling process entails:
 - a) Obtaining information about the clients.
 - b) Deciding on the plan of action.
 - c) Evaluating to see the effect of the counseling process.
 - d) Establishing a rapport between the two parts.

For questions (5) indicate whether the statements given are true or false:
- 5. a) In collaborative therapy, the expertise of the clients is given as much weight as the expertise of the therapist
 b) Client status is elevated from passive recipient to active contributor

SAQ's

- 1. State any five (5) qualities of a treatment goal in counseling.
- 2. Explain the acronym SOLER as applied in counseling.
 - [S: Face the other Squarely](#)
 - [O: Adopt an Open Posture](#)
 - [L: Lean toward the other](#)
 - [E: Make Eye Contact](#)
 - [R: Be Relatively Relaxed](#)

**KENYA MEDICAL TRAINING
COLLEGE COMMUNICATION MODULE
CAT**

TIME ALLOWED: 1 HRS

DATE:

PART ONE: MCQ's

- 1. Decoding can be defined as:
 - ✓ Process of receiver understanding the message.
- 2. Examples of nonverbal communication includes:
 - ✓ Facial gestures, body language, dressing.
- 3. Components of an appraisal report include:
 - ✓ Relationship with other workers are of improvement, strengths.
- 4. Communication is said to be complete if:
 - ✓ Receiver understands the message and responds.
- 5. In communication the best method of enhancing understanding is by:
 - ✓ Lecture and demonstration.

SHORT ANSWER QUESTIONS:

- 1. State phases of nurse-patient relationship.
 - a) [Pre-orientation Phase:](#)

- ✓ Begins when the nurse is assigned to the patient.
 - ✓ Patient is excluded as an active participant.
 - ✓ Nurse feels a certain degree of anxiety.
 - ✓ It includes all that the nurse thinks and does before interacting with patient.
 - ✓ Major task of the nurse is self-awareness.
 - b) Orientation Phase:**
 - ✓ Begins when the nurse and the patient meet.
 - ✓ Parameters of relationship are done.
 - ✓ Explanation of roles is done including responsibilities and expectation of the patient and nurse.
 - ✓ Nurse begins to know the patient.
 - ✓ Major task of the nurse is to develop mutually acceptable set contract.
 - c) Working Phase:**
 - ✓ It is highly individualized.
 - ✓ It is more structured.
 - ✓ It is longest and most productive.
 - ✓ The nurse and the patient explore stressors and promote insight in the patient by linking perceptions, thoughts, feelings and actions.
 - ✓ Limit setting is employed.
 - ✓ Major task of nurse is identification and resolution of the patient's problem.
 - d) Termination Phase:**
 - ✓ It is the gradual weaning process since it is the most difficult and important phase.
 - ✓ It is a mutual agreement, time to exchange feelings and memories and to evaluate the patient's progress and goal attainment.
 - ✓ Involves feelings and anxiety, fear and loss.
2. State two channels of communication a nurse can use while in the ward.
 - ✓ Direct.
 - ✓ Indirect.
 3. State three barriers of the receiver that affect communication.
 - ✓ Poor judgment.
 - ✓ Misunderstanding of the message.
 - ✓ Noise.
 4. State the five elements of communication.
 - ✓ Sender.
 - ✓ Receiver.
 - ✓ Message.
 - ✓ Medium.
 - ✓ Feedback.

MIDSEMESTER EXAMINATION
Communication module

MCQ's

1. Statistically, we remember what percentage of what is spoken?
 - a. 70%
 - b. 20%
 - c. 30%
 - d. 80%

2. What characteristic is essential in the definition of communication?
 - a. Interpreting.
 - b. Sending.
 - c. Sharing.
 - d. Receiving.
3. According to the Communication Elements Model, the listener....
 - a. Merely encodes the feedback.
 - b. Decodes the feedback and encodes the message.
 - c. Decodes both the message and the feedback.
 - d. Encodes the feedback and decodes the message.
4. The first critical thinking skill one should utilize when public speaking is.....
 - a. Brainstorming.
 - b. Focusing.
 - c. Organizing.
 - d. Evaluating.
5. Which of the following levels of communication is most formal?
 - a. Group.
 - b. Public.
 - c. Interpersonal.
 - d. Intrapersonal.
6. What is the critical thinking skill that allows you to formulate questions and collect data?
 - a. Generating.
 - b. Focusing.
 - c. Information gathering.
 - d. Analyzing.
7. Josh is sitting in class listening to a speech when his stomach begins to growl. Josh is experiencing.....
 - a. Intrapersonal noise.
 - b. Psychological noise.
 - c. Physiological noise.
 - d. Physical noise.
8. Decoding can be defined as
 - a. Pathway the message is transmitted.
 - b. Person getting the message.
 - c. Process of receiver understanding the message.
 - d. Process of sending the message by sender.
9. Example of nonverbal communication includes
 - a. Facial gestures, body language, dressing.
 - b. Written, facial gestures, dressing.
 - c. Written, body language, gestures.
 - d. Facial, gestures, written, dressing.
10. Components of an appraisal report include
 - a. Qualifications of appraiser, character, tribe.
 - b. Relationship with other workers, areas of improvement, strengths.
 - c. Ability to perform, marital status, competency.
 - d. Character, seniority, marital status.

SECTION

BSAQ's

1. State five factors that would enhance interpersonal communication.
 - Use of proper medium to transfer the information especially in an organization.
 - Use of language understood by everyone.
 - Avoid information overload.
 - Avoid an external disturbance i.e. noise.
2. State five benefits of critical thinking.
 - Provides self-disciplined thinking.
 - Offers self-monitored thinking.
 - Helps to think beyond understanding therefore a difficult situation can be solved.
 - Responsible for aiding in setting desirable goals for a certain problem.
3. State three disadvantages of face-to-face communication.
 - Difficult to practice in a large sized organization.
 - Not effective in large gatherings.
 - Ineffective if the listener is not attentive.
4. State five reasons why nurses should be critical thinkers.
 - Helps in solving conflicting and difficult situations.
 - Helps to guide and assist patients in solving their problems for their care.
 - Assists a nurse to have broad focus on effecting solutions for a problem.
 - Helps in the management of serious health problems for patients.

SECTION

CLAQ's

1. Describe the advantages and disadvantages of the following modes of communication.
 - a) Electronic media. Advantages:
 - Faster.
 - Immediate feedback.Disadvantages:
 - Requires electricity and skills to operate.
 - Someone's attitude is not noted.
 - b) Mass media. Advantages:
 - Faster.
 - Covers wide area to convey a message.Disadvantages:
 - Requires a device to receive the message.
 - No room for feedback.
 - c) Interpersonal. Advantages:
 - Helps in decision making for one's issues secretly.
 - Immediate feedback.

Disadvantages:

- Feedback may be forgone and insufficient.
- Insufficient information gathering.

d) Grape

vine. Advantages:

ages:

- Entertainment.
- Immediate feedback.
- One's attitude is

noted. Disadvantages:

- Can be distorted hence no reference for future retrieval.
- Affected by misunderstanding of each one's information.

END OF SEMESTER
EXAMS MICROBIOLOGY

PART I: (MCQ's 10 marks)

1. Viruses are intracellular because they lack:-
 - a) Genes necessary for energy production
 - b) Both DNA and RNA
 - c) Cell wall peptidoglycan
 - d) DNA only
 - e) RNA only
2. Which of the following is true about a subclinical infection:-
 - a) It is called a symptomatic infection.
 - b) It has few signs and symptoms
 - c) It lacks signs and symptoms
 - d) It is caused by unknown organism
 - e) It has no-specific signs and symptoms
3. Vertical transmission is associated with:-
 - a) Malaria
 - b) Human papilloma
 - c) Cytomegalovirus
 - d) Mumps
 - e) Measles
4. Which of the following microorganisms is an obligate intracellular parasite:-
 - a) Bacteria
 - b) Protozoa
 - c) Fungi
 - d) Virus
 - e) Chlamydia
5. An outcome of an acute infection is characterized by:-
 - a) Recovery with no residue effects
 - b) Along silent period before disease
 - c) Silent subclinical infection for life
 - d) Proceed to chronic infection
 - e) No signs and symptoms

6. Which of the following is an example of live whole virus vaccine:-
 - a) Polio (Salk vaccine)
 - b) Polio (Sabin vaccine)
 - c) Hepatitis A vaccine
 - d) Rabies vaccine
 - e) **Influenza vaccine**
7. The following is/are examples of nematodes except:-
 - a) Ascaris (roundworm)
 - b) Trichuris (whipworm)
 - c) Ancylostoma (hookworm)
 - d) Necator (hookworm)
 - e) **Taenia (tapeworm)**
8. The immune system is the third line of defense against infection involve:-
 - a) Intact skin
 - b) Mucous membrane
 - c) **Antibodies**
 - d) Antimicrobial protein
 - e) Phagocytic white blood cell

PART II: ESSAY QUESTIONS (40 Marks)

1. State any four (4) characteristics of protozoan phyla (4 marks)
2. Describe the chain of infection (6 marks)
3. Outline the life cycle of *Ascaris lumbricoides* (10 marks)
4. Discuss the types of acquired immunity giving an example in each type
5. State the difference between virus and bacteria.
6. Discuss the modes of disease transmission in a man
7. List any 5 types of vaccine.
8.
 - a) Highlight any 5 prevention and control measures against a parasitic infection.
 - b) Write short notes on innate type of immunity.
 - c) Define:
 - i) Immunity.
 - ii) Nosocomial host.
 - iii) Definitive host.
 - iv) Commensal.
 - v) Antigen.

END OF SEMESTER
EXAMS MICROBIOLOGY

PART I: (MCQ's 10 marks)

1. The most commonly encountered bacteria are roughly spherical. The microbiological term describing this shape is?
 - **Coccus.**

2. In bacterial cells, ribosome are packed into the cytoplasmic matrix and also loosely attached to the plasma membrane. What is the function of ribosome?
 - Site for protein synthesis.
3. Fimbriae:-
 - Attach bacteria to various surfaces.
4. Capsules and slime layers:-
 - Consist of secreted material lying outside of the bacterial cell wall.
 - They are required for bacteria to grow normally in culture.
 - Help the bacteria to resist phagocytosis by macrophages.
5. Bacterial cells:-
 - Do not have nuclei.
 - Not all are harmful.
 - Are prokaryotes.
6. Most microorganisms are single celled except:-
 - Algae and fungi.
7. Prokaryotes have:-
 - Cell membrane
 - Cytoplasm
 - Ribosome.
8. Nucleus of eukaryote contains:-
 - Nuclear membrane.
 - Nucleoli.
 - Nucleolus.
9. Virulence:-
 - Ability of an organism to produce severe pathological reactions.
10. Antigenicity:-
 - Ability of an organism to produce specific immunity.

Part II

1. The five major groups in which microorganisms are classified:
 - Bacteria.
 - Protozoa.
 - Fungi.
 - Algae
 - Viruses.
2. General properties of viruses.
 - Lack ribosome.
 - Undergo replication.
 - Contain either DNA or RNA.
 - Resistant to antibiotics.
 - Sensitive to interferone.

3. Morphology and arrangement of bacterial cells are criteria used for classification of bacteria into different groups. State five groups of bacterial shapes using microbiological terms:

- **Coccus**—roughly spherical/oval
- **Vibrio**—comma shaped.
- **Bacilli**—rod shaped.
- **Spirilla**—rigid spiral forms.
- **Spirochetes**—flexible spiral forms.

MICROBIOLOGY, IMMUNOLOGY & PARASITOLOGY (PAPER)

PART I: MCQ's

1. Immunity is not long lasting to:-
 - a) Influenza.
 - b) Whooping cough.
 - c) Diphtheria.
 - d) **Mumps.**
2. Passive immunization is done for:-
 - a) Tuberculosis.
 - b) Diphtheria.
 - c) **Enteric fever.**
 - d) All of the above.
3. Which of the following is NOT true for prokaryotic organism:-
 - a) Nucleus is not bounded by nuclear membrane.
 - b) Chromosomes do not contain histones.
 - c) **80S ribosome are distributed in cytoplasm.**
 - d) Cell wall contains peptidoglycan as one of the major components.
4. Which of the following is/are included in the kingdom prokaryote:-
 - a) **Bacteria.**
 - b) Protozoa.
 - c) Fungi.
 - d) All of these.
5. Viruses largely lack metabolic machinery of their own to generate energy or to synthesize:-
 - a) **Protein.**
 - b) Carbohydrate.
 - c) Alcohol.
 - d) All of the above.
6. The ability of bacteria to change morphological form frequently is termed as:-
 - a) Lysogeny.
 - b) **Pleomorphism.**
 - c) Alteromorphism.
 - d) None of the above
7. Naturally acquired active immunity would be most likely acquired through which of the following:-
 - a) Vaccination.
 - b) Drinking colostrums.
 - c) Natural birth.
 - d) **Infection with disease causing organism followed by recovery.**

8. Which of the following convey longest lasting immunity to an infectious agent:-
 - a) Naturally acquired passive immunity.
 - b) Artificially acquired passive immunity.
 - c) Naturally acquired active immunity.
 - d) **All of the above.**
9. Cell mediated immunity is carried out by while humoral immunity is mainly carried out by:-
 - a) Epitopes/Antigens.
 - b) **T cells/B cells.**
 - c) Antibodies/Antigens.
 - d) Antibodies/Phagocytes.
10. In malaria, the form of plasmodia that is transmitted from mosquito to human is the:-
 - a) Sporozoite.
 - b) Gametocyte.
 - c) Merozoite.
 - d) Hypnozoite.

PART II: SAQ's

1.
 - i. What does active immunization mean?
 - **The individual's own immune system is stimulated.**
 - ii. What does passive immunization mean?
 - **A person receives antibodies or lymphocytes that have been produced by another individual's immune system.**
 - iii. Mention two (2) bacterial infectious diseases that can be prevented or treated by passive immunization.
 - **Whooping cough.**
2. What are the main advantages and disadvantages of live attenuated vaccines as compared to killed one.

Advantages:

 - Strong.
 - Fast acting.

Disadvantages:

 - Prone to mutation.
 - Dangerous.
 - Need refrigeration.
3. Which two (2) roles are attributed to bacterial pili (fimbriae)
 - **Organs of adhesion (attachment).**
4. Define the following terms used in parasitology.
 - a) Parasitism: - **This is a relationship which occurs between two organisms in which one organism, parasite, depends on another organism, host, for nutrients causing harm to the host.**

- b) Symbiosis: - This is a relationship occurring between two organisms whereby there is a mutual benefit between them and no harm caused to either of the organisms.
- c) Definitive host: - The organism in which the adult or sexually mature stage of the parasite lives.
- d) Reservoir host: - Place in which an infectious agent can survive but may or may not multiply

PART III: ESSAY/LAQ

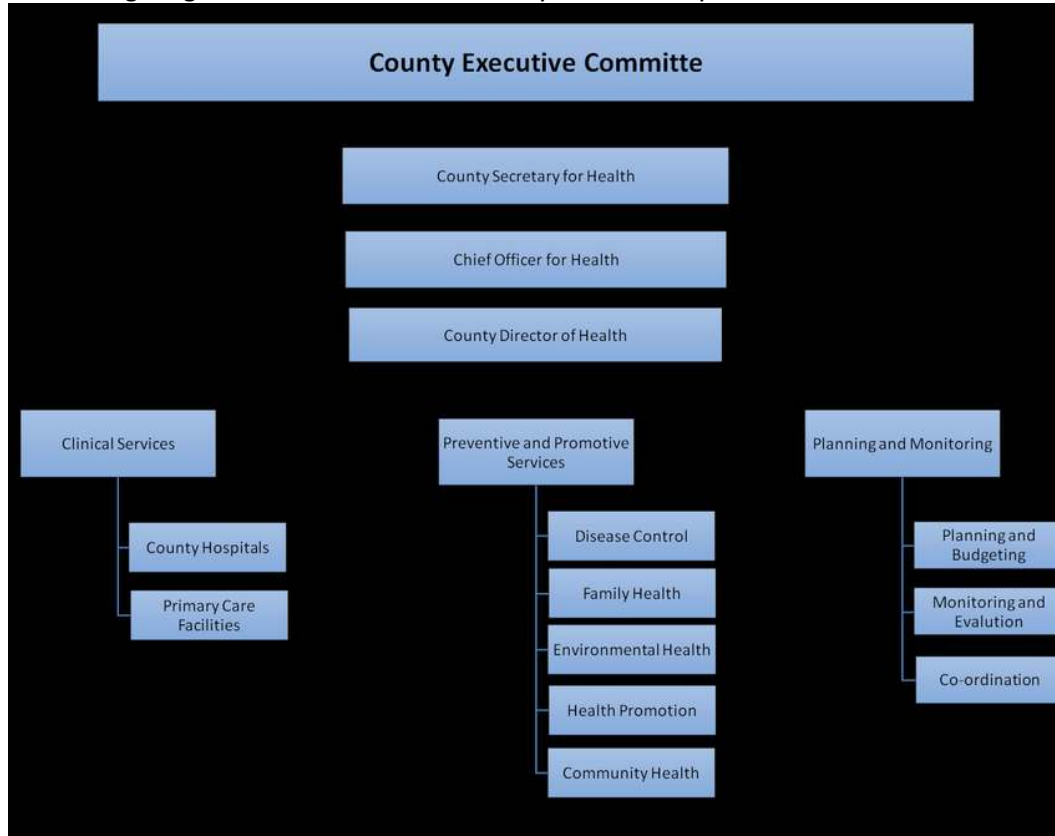
1. Describe the steps involved in an inflammatory response including the chemicals and cells involved.
 - Tissue damage caused by bacterial infection or injury.
 - Release of vasodilators and chemotactic factors like histamine.
 - This leads to increased capillary permeability and blood flow to the area.
 - These serum proteins along with phagocytes destroy bacteria.
 - Once intruder is destroyed, inflammation settles down.
2. Describe endospore.
 - It is a resistant asexual spore that develops inside some bacterial cells.
 - Its formation is usually triggered by a lack of nutrients and usually occurs in gram positive bacteria.
 - It enables bacteria to lie dormant for extended periods.
 - Favorable environment enables the endospore to reactivate itself to the vegetative state.
 - Bacteria that form endospores include *Bacillus* and *Clostridium*.
 - They are resistant to ultra violet radiation, desiccation, high temperatures, extreme freezing and chemical disinfectants.
 - They can survive without nutrients.
3. State five (5) criteria used to classify bacteria.
 - Phylogenetic: - Based on branching system of organisms.
 - Molecular/Genetic: - Based on genetic relatedness of organisms.
 - Intraspecies: - Based on biochemical relationship

COMMUNITY HEALTH:

1. Define:
 - a) Community: - Is a social group of individuals that geographically live together and share common resources and challenges.
 - b) Community Health: - It is a branch of medicine that is concerned with the health of the population in prevention of the diseases that it suffers.
 - c) Public Health: - It is the science of protecting and improving the health of individuals and their community.
2. Describe the roles of a Community Health Nursing.
 - Manages and coordinates health programs within the facility
 - Implements the plans of action as prescribed within the community and to family
 - Trains families and the communities on safe ways of infection prevention
 - Researches on the problems that the community and the families under her care suffers
 - Plans for the best programs that suits the community health care needs
 - Evaluates the effectiveness of the community health services offered
3. Discuss any component of Home Based Care.

- **Clinical Care:** early diagnosis, rational treatment and planning for follow up care of HIV related illnesses;
- **Nursing Care:** includes care to promote and maintain good health, hygiene and nutrition;
- **Counselling and psycho-spiritual care:** includes reducing stress and anxiety and promoting positive living;
- **Psycho-social support:** includes information about and referral to support groups, welfare services and legal advice.

4. Draw an organogram to illustrate the Community Health Care System.



5. Describe the specific services offered in an MCH/FP clinic:

- Regular Antenatal Check-ups.
- Advice on Antenatal Exercises (Lamaze classes)
- Exclusive breastfeeding and formula feeding.
- Complementary feeding (weaning)
- Nutritional advice
- Counselling
- Regular blood tests for rhesus compatibility.

6.

i) Define Primary Health Care

It is the whole-of-society approach to ensuring the highest level of health care services is provided to everyone for the well-being of its individuals

ii) State the elements of PHC

- Education about prevailing health problems and how to prevent and control them
- Food supply and proper nutrition
- Adequate supply of safe water and basic sanitation
- Maternal and child health, Family planning
- Immunization against infectious diseases
- Prevention and control of endemic diseases
- Treatment of common infections
- Essential drugs

7. As a community health nurse, you realize an increase in Home Deliveries. Outline strategies you will implement to encourage Hospital Deliveries:
 - Identify and assess the reasons why this has been happening.
 - Prepare the mothers in groups to give patient education on by sensitizing them on the importance of hospital delivery and risks posed to them in home deliveries.
 - Plan for the best action by liaising with local administration, local midwives to provide psychological and infrastructural support for pregnant mothers. (good roads and ambulance)
 - Partners involvement is key for financial planning and delivery preparedness.
 - Encourage mothers to embrace ANC services as this would provide for appropriate and timely intervention.
8. Briefly outline the development of Community Health Nursing in Kenya:
 - Community Health dates back to 2100 yrs ago. Early responsibility involved control of communicable diseases through;
 - Control of environment
 - Better sanitation
 - Strict isolation procedures e.g. for tuberculosis, leprosy
 - Advancement led to development of laboratory techniques which led to earlier diagnosis and more effective medication care. The control measures developed included:
 - Immunization
 - Provision of safe water supply
 - Waste disposal
 - Gradually, the six basic functions of public Health evolved:
 - Control of communicable diseases
 - Environmental sanitation
 - Laboratory services
 - Vital statistics
 - Maternal and child health care
 - Health education among other services to date
9. State the sources of revenue to the exchequer for healthcare in Kenya.
 - Relief programs from world aid funds like DANIDA
 - Employees deductions as savings and shares
 - Private sectors welfares and subscription fees
 - Licensing of individuals, companies and corporates involved in health care services
 - Government support and budgetary allocations
 - Sale of medical equipment's, drugs and other supplies
10. Describe the Kenyan elements of Primary Health Care:
 - Free primary and secondary education and education about prevailing health problems to vulnerable society
 - Supply of enough and safe water for all communities and families
 - Immunization programs to all individuals against various diseases
 - Prevention of endemic diseases
 - Treatment of common illness

11. Discuss the components of school health programs:

- Health education – the school health program engages in training and sensitizing learners about the current and history of disease trends that they may fall victims of. Involves safe ways of maintaining hygienic conditions all through
- Health services – this involves bringing health care services close to the learners and address their health needs appropriately and timely. Involves school dispensaries and clinics.
- Health environment – prevention is a key role in disease control. This is achieved by way of keeping our environments clean and free from accidents, pollution and other bio-hazards that are costly to treat.

12. Describe health care delivery system in Kenya using tiers:

- Level 1 – Community Health Services
- Level 2 – Dispensary and Clinics
- Level 3 – Health Centers and Maternity and Nursing Homes
- Level 4 – District Hospital, Sub county Hospitals and Medium Sized Private health facility
- Level 5 – Referral Hospital, County referral hospitals and other large private specialized hospitals

PART II: LAQ's

1. Describe any 5 millennium development goals, addressing women health.

- i) Promotion of gender equality and women empowerment to enable single mothers support their family
- ii) Reduce child mortality as this bring trauma and psychological effects on women
- iii) Improve maternal health for safe delivery and reduce maternal and child mortality
- iv) Eradicate extreme poverty and hunger for healthy babies and mothers.
- v) Combating HIV/Malaria and other infections. This is achieved by PMTCT education and ITN to prevent maternal and child mortality.

2.

- i) Discuss the level of implementation.
- ii) The success/failures in implementation

END OF SEMESTER ONE

EXAMS INTRODUCTION TO COMMUNITY HEALTH

HEALTH

PART I: MCQ's

1. Define community health nursing.

- ☞ It is the union/synthesis of nursing and public health practices relied to promote and protect health of population.

2. Name the founder of community health nursing and country of origin.

- ☞ Lilian Wald – New York

3. State two concepts of community health nursing.

- ❖ The move toward the community.
- ❖ High quality, cost effective and regulatory health services care accessible to everyone.
- ❖ CHN considers a family as a unit of service. It is a level of a functioning influenced by the degree to which it can relieve its own problems.

4. State five roles of community health nurse.

- ❖ Deliver care and comfort for patients



- ❖ Respond to health needs and risks for individuals.
- ❖ Evaluate health status for patients and diagnose illness.
- ❖ Take history of patients' sickness and conduct physical examination.
- ❖ Collects lab and diagnose data and evaluate.
- ❖ Discuss with physician or consulting specialist about patient's illness.
- ❖ Plan treatment procedures for patients and their families in accordance with doctor's instructions.
- ❖ Educates patients and their families on disease and their preventive and control measures.
- ❖ Educate communities about health risks and preventive measures.
- ❖ Educate communities, patients and their families on infection control, emergency safety methods.
- ❖ Teaches self-care abilities to patients with special needs.
- ❖ Documents all visits and health care outcomes.

5. Differentiate between community health nurse and general nurse

CHN is the union of nursing and public health practices concerned with promotion and protection of health of a population while GN is caring and meeting the needs of individual adult patients in family setups, communities or clinical areas.

State whether the following statements are true or false

6. One of the roles of SHMT (DMHT) is to supervise health matters in the county..... **FALSE**.....
7. The County Health Management Team (CHMT) equivalent to former PHMT advises the county government on matters of health... **TRUE**.....

PART II: ESSAY

1. Describe the history of community health nursing in Kenya.

- ❖ It has been said that you have to know the past to understand the future.
- ❖ Before the **Europeans** came to Kenya, the knowledge of treatment of diseases was handed from fathers to sons between generations.
- ❖ It was believed that diseases could be caused by evil spirits, breaking taboos, witchcraft or by god.
- ❖ Western medication came to Kenya with missionaries in the beginning of 20th century.
- ❖ They started to build up hospitals and started to educate people about diseases.
- ❖ In the beginning it was almost impossible to train local people for nursing and dressing. This was because the Western medicine was seen as infringing their customary ways i.e. Africans and people did not want to be involved in it and if involved they were easily outcast from the tribe.
- ❖ The first local were trained as dresser in the year **1908** and slowly after, the number of trained locals raised.
- ❖ Upon that time, it wasn't easy to get women to come to hospital for training because of family pressures, so most of the local people who came for training were male.
- ❖ The training lasted for **3 years** and they were trained as dressers. In the training, the subjects covered were **cleanliness, sanitation, dressing of wounds and ulcers, taking temperature and assisting in operations.**
- ❖ Training and people's attitude evolved over time and the need for medical people grew.
- ❖ In **June 1949**, the act of enabling the formation of nurses and midwives registration ordinance was born and training of nursing.
- ❖ Before, this training was done by both government and missionaries without coordination.
- ❖ The first training of **registered nurses** started in **1952** i.e. **KRN**. Studies took **31/2 years**.
- ❖ In comparison, to graduate as **enrolled assistant nurse** it took **2 years**.
- ❖ In **1966**, training of **CHN** was started in **Kisumu** in the **Nyanza School of Nursing (KECHN)**.
- ❖ CHN were so called multipurpose nurses, they were trained to working as **nurse, midwives or health visitors.**
- ❖ Training happened because there was a great man of personnel.

- ❖ Training for **Registered Nurses** began in **Nairobi** in **1972** and spread out (**KRCHN**).
- ❖ In **1968**, **2 year** training in advanced nursing was started at **University of Nairobi**.
- ❖ Over time it was noticed that improving health care training could enhance quality and skills in training.
- ❖ In **2000** it was decided that training programs for **certificate level** to be terminated and **Diploma level** started.
- ❖ This program is still going on because some training centers are still offering certificates

2. Discuss five principles of community health nurses.

- ❖ The recognized need of individuals, families and communities provides a basis for CHN practice.
- ❖ The primary purpose is to further apply public health measures within the framework of the total CHN.
- ❖ Knowledge and understanding of objectives and policies of the agency facilitates goal achievement.
- ❖ CHN considers family as the unit of service. Its level of functioning is influenced by the degree to which it can lead with its own problems.
- ❖ It calls respects for values, customs and beliefs of the clients, contribute to the effective care.

- ❖ CHN integrates health education and counseling as vital part of the actions.
 - ❖ Collaborative work relationships with co-workers and members of team facilitates establishment of goals.
 - ❖ Periodic and continued evaluation provides means of assessing the degree to which the CHN goals and objectives are being attained. Clients are involved in the appraisal of their health program through observations and accurate.
 - ❖ Continuing staff education program and quality service is essential for upgrading sound nursing practice. Professional interest and needs of CHN are considered in planning program of the client.
 - ❖ Utilization of indigenous and existing community resources maximizes the success of the CHN.
 - ❖ Active participation of individual, family and community in planning and making decisions of their healthcare need determine the success of CHN program.
 - ❖ Supervision of nursing services by qualified CHN personnel provides directions and guidance to the work they do.
 - ❖ Accurate recording and reporting serve as basis in which regulation of plan progress and activities as a guide for future activities.
3. Discuss the roles of government in provision of health services.
- ❖ Financing the ministry.
 - ❖ Making policies.
 - ❖ Setting standards.
 - ❖ Manpower acquisition/training.
 - ❖ Build/improve infrastructure.
 - ❖ Provides leadership.

Environmental Health:

1. Roles of a nurse in Occupational Health:
 - Counsel and guide employees on individual's health status.
 - Offering first aid services at times of emergency and crisis.
 - They take part in crisis intervention e.g. during outbreak of diseases.
 - Health surveillance; they promote health, primary care, counseling and rehabilitation.
2. Methods of waste disposal applicable in the community:
 - Incineration.
 - Burying.
 - Open dumping.
 - Recycling.
3. Sources of water in your catchment area:
 - Boreholes.
 - Wells.
 - Rivers.
 - Springs.
 - Lakes,

4. Factors to assess if a house is fit for human occupancy:
 - Ventilation.
 - Adequate light.
 - Adequate rooms.
 - Site of location.
 - Adequate water supply.
 - Adequate security
 - Proper waste disposal mechanisms in place
 - Proper sanitation

5. Why pests and vectors are of environmental concern:
 - Some vectors such as anopheles mosquito transmit malaria.
 - Some pests destroy crops in the farms such as cereals, vegetables hence causing loss to the farmer e.g. weevil, rats, aphids.
 - Some vectors such as lice cause discomfort by making one not to sleep comfortably including bed bugs which make one not to sleep comfortably.
 - Some pests cause a lot of damage in the house e.g. rats eat clothes, food making it not suitable for human consumption.
 - Some vectors such as tsetse flies can transmit diseases to human.
 - Some pests make holes on mud houses making it not suitable for human occupation.

6. Diseases transmitted by vectors:
 - Sleeping sickness transmitted by tsetse flies.
 - Malaria transmitted by female anopheles mosquito.

7. The general methods of pests and vector control:
 - Clearing of bushes and grasses around the house to avoid mosquito from breeding in those areas.
 - Clearing stagnated water around the house to avoid mosquito breeding in those areas.
 - Proper disposal of solid wastes such as plastic containers which collect rainwater hence providing breeding site for mosquitoes.
 - Use of insecticides and pesticides on crops to kill pests and microorganisms on crops.
 - Improving personal hygiene by maintaining short hair to avoid lice, taking bath daily and maintaining short nails.
 - Use of mosquito sprays and also other chemicals to spray bed bugs and pests.
 - Use of insecticide treated net to protect mosquito bites.
 - Killing rats by use of traps.

**ALLTHEBESTINYOU
RREVISION
THANKS!!!!!!!!!!!!**

