NURSING COUNCIL OF KENYA

BSc. Nursing Examination

Revision Questions
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Compiled By
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JANUARY 2009 PAPER ONE

Part I: Multiple Choice Questions

- Q:1: The major factors associated with obesity include:
 - a) Genetic, nutritional, level of activity.
 - b) Nutritional, level of activity, socio-cultural.
 - c) Nutritional, social, genetic.
 - d) Level of activity, genetic, psychological.
- Q:2: During assessment of hearing, Rhine test is used to:
 - a) Evaluate bone conduction.
 - b) Evaluate the patient's ability to hear high frequency sounds.
 - c) Compare bone conduction with air conduction in both ears.
 - d) Determine the degree of hearing.

Rinne test is a timed tuning-fork test used to compare Air Conduction (AC) and Bone Conduction (BC) in both ears (Dillon, 2007).

- i. Place a vibrating tuning fork on the mastoid process asking the patient to tell when vibrations are no longer heard (BC).
- ii. Immediately, bring vibrating tuning fork in front of ear and note the length of time until patient no longer hears sound (AC).
 - *Normally, AC is twice as long as BC.*
 - AC less than twice BC indicates Hearing loss by AC,
 - *Poor BC indicates Sensorineural hearing loss.*
 - *AC to BC ratios that differ markedly in each ear indicates Unilateral hearing deficit (Dillon, 2007).*
- Q:3: A synergistic interaction between furosemide and gentamicine may cause:
 - a) Sedation.
 - b) Gout.
 - c) Retinopathy.
 - d) Ototoxicity.

Furosemide can cause hearing loss and tinnitus while gentamicine commonly causes ototoxicity and nephrotocity. Either increases toxicity of the other by additive drug effect hence increased risk of ototoxicity and nephrotoxicity (Schull, 2010).

Q:4: In the elderly, peptic ulceration induced by non-steroidal anti-inflammatory drugs can best be treated with:-

- a) Bismuth chelate.
- b) Misoprostol.
- c) Metoclopramide.
- d) Antacids.

Proton pump inhibitors (PPIs) and H2 Receptor blockers are effective acid-reducing agents and help promote ulcer healing in NSAID-induced ulcers. However, Oral Misoprostol (Cytotec) 100–200 µg QID best treats/prevents NSAID-induced peptic ulceration.

Q:5: Temper tantrums are common in;-

- a) School age children.
- b) Infancy.
- c) Toddlers.
- d) Preschool age children.

Temper tantrums usually include stomping of feet, holding breath, screaming, head banging; common among toddlers (1-3yers).

Q:6: Hordeolum eternal (sty) is the infection of:

- a) Tarsal glands of eyelid.
- b) Eyeball.
- c) Lachrymal glands.
- d) "

A sty is an acute inflammation of gland of the Zeis (modified sebaceous glands) or Moll (modified sweat glands) that open into follicles of eyelashes (Khurana, 2007).

Commonly caused by Staphylococcus aureus infection after blockage with sebum.

Symptoms are acute pain associated with swelling of lid, mild watering and photophobia.

Q:7: Pelvic inflammatory diseases include:

- a) Salpingitis, cervitis, candidiasis
- b) Cervicitis, endometritis, oophoritis.
- c) Trichomoniasis, salpingitis, urethritis.
- d) Candidiasis, toxic shock syndrome, endometritis.

Acute pelvic inflammatory disease (PID) is most commonly caused by infection ascending from the vagina or cervix, which causes inflammation of the upper genital tract. This can result in any combination of salpingitis, endometritis, oophoritis, cervicitis, parametritis, pelvic peritonitis, and tubo-ovarian abscess (Adler et. al., 2004).

Q: 8: A clinical path is:-

- a) Day to day activities that will be carried out for a particular patient.
- b) An outline of steps a patient will take from admission to discharge.
- c) A predetermined outline of patient care for a specific episode of care.
- d) A predetermined outline of medical and surgical care procedures for a specific episode of care.

A clinical path/ critical path/ care path is a multidisciplinary form for each day of anticipated hospitalization that identifies the interventions and achievement of client outcomes (DeLaune & Ladner, 2002). Pathways tend to cover patient groups in which the treatment and recovery are relatively predictable (Brunner, 2010). They display goals and provide sequence and timing of actions necessary for goal achievement with optimal efficiency (AHA, 2013).

Q:9: Cholelithiasis is associated with:-

- a) Abnormal metabolism of cholesterol and bile salts.
- b) Abnormal metabolism of lipids and bile acids.
- c) Chronic pancreatitis.
- d) Hepatitis.

Cholelithiasis/ gallstones are concretions that form in the billiary tract, usually in the gallbladder. They are associated with decreased bile acid synthesis and increased cholesterol synthesis in the liver, resulting into precipitation to form stones (Brunner, 2010).

Q:10: Increased tactile fremitus may occur in:-

- a) Lung tumor, pulmonary fibrosis.
- b) Pleural effusion chronic obstructive pulmonary disease(COPD)
- c) Pneumonia, pleural effusion.
- d) Pulmonary fibrosis, chronic obstructive pulmonary disease (COPD)

Tactile or vocal fremitus is the palpable vibration you feel when the patient speaks (says '99'). Assessment of tactile fremitus is used to evaluate airflow and density of underlying tissue. Normally, the thicker the chest wall, the more diminished the fremitus; the lower the voice pitch, the greater the fremitus(Dillon, 2007).

Increased fremitus (low voice pitch): conditions causing fluid or exudates in lungs (e.g consolidating pneumonia, atelectasis, pulmonary fibrosis, pulmonary edema, or pulmonary infarction) and sometimes lung tumor depending on size and mobility.

Decreased or absent fremitus (high pich): air trapping, solid tissue, or decreased air movement (e.g. emphysema, asthma, pleural effusion, pneumothorax, or distal to airway obstruction).

Q: 11: Atopic dermatitis commonly develops in individuals aged:-

- a) 30 years and above.
- b) 1 month to 1 year.
- c) Above 5 years.
- d) Between 2 years and 5 years.

Atopic dermatitis is a pruritic disease of unknown origin that usually starts in early infancy; approximately 85% of cases occur within first year of life. Usually presents with pruritus, eczematous lesions, xerosis (dry skin) and lichenification (thickening of skin) (Emedicine, 2013).

Q:12: Chvostek's sign is used for diagnosis of:-

- a) Hypercalcemia resulting from hyperparathyroidism.
- b) Hypercalcemia resulting from hyperpituitarism.
- c) Hypocalcaemia resulting from hypoparathyrodism.
- d) Hypocalcaemia resulting from hypothyroidism.

Chvostek's sign consists of twitching of muscles supplied by the facial nerve when the nerve is tapped about 2 cm anterior to the earlobe, just below the zygomatic arch. When hypocalcemia develops from parathyroid disease, Chvostek's sign, a facial spasm, may be an early symptom (Patricia & Dhilon' 2007).

Q:13: Glomerulonephrtis usually follows:-

- a) Staphylococcal infection.
- b) Gonococcal infection.
- c) Hemphilus influenza infection.
- d) Streptococcal infection.

In glomerulonephritis group A Beta-hemolytic streptococci, which usually colonize the pharynx, form antigen—antibody complexes that are deposited in the glomerulus decreasing glomerular filtration rate (GFR).

Q:14: Characteristics Prinzmental's Angina (Variant Angina) include:

- a) Occurs with known amount of activity, density of pain remain stable.
- b) Occurs with increasing severity, pain is unpredictable.
- c) Occurs same time each day, caused by coronary artery spasms.
- d) Always occur due to atherosclerotic lesion, pain increases with increasing level of activity.

Angina involves episodes or paroxysms of pain or pressure in the anterior chest usually associated with insufficient coronary perfusion.

Forms/ Types of angina include:

- Stable angina: -predictable and consistent pain that occurs on exertion; relieved by rest
- Unstable/ Pre-infarction/ Crescendo angina: more frequent and longer lasting pain that may occur
 at rest
- Intractable/ Refractory angina: —severe incapacitating chest pain
- Variant/ Prinzmetal's angina: —recurrent, unpredictable pain that occur at rest. There is reversible ST-segment elevation; thought to be caused by coronary artery vasospasm
- Silent ischemia: -objective evidence of ischemia (eg ECG changes) without symptoms

Q:15: The teeth that commonly get impacted are the :-

- a) Molars.
- b) Incisors.
- c) Canine.
- d) Wisdom.

Impacted teeth fail to fully pass through the gums. Most commonly impacted teeth are the 3rd set of molars (wisdom teeth). This is because they grow last and usually do not have enough space in the jaw to emerge thru the gums.

Q:16: Body mechanics usually prescribed for clients with low-back pain include:-

- a) Bending at knee and hips, standing straight, carrying objects close to the body.
- b) Bending at the waist carrying objects close to the body, standing straight.
- c) Sleeping on the side carrying objects farther from the body, bending at the knees and hips.
- d) Bending at the knees and hips.
- e) Bending at the waist, sleeping on the side, standing straight.

Q:17: The type of immunoglobulin's involved in type III immune complex-mediated hypersensitivity are:-

- a) 1gE, 1gM
- b) 1gG, 1gM.
- c) 1gE, 1gD.
- d) 1gG, 1gA.

There are four main types of hypersensitivity reactions:

Type I (anaphylactic): The most common and occur within a few minutes after a person sensitized to an allergen. Mediated by IgE, Mast cells and Basophils(Tortora 2009).

Type II (cytotoxic): Due to IgG or IgM directed against antigens on a person's blood cells (red blood cells,lymphocytes, or platelets) or tissue cells eg. Blood transfusion reactions (Tortora 2009).

Type III (immune-complex): Involve antigens, IgA or IgM, and complement. Huge number of insoluble antigen-antibody complexes formed cannot be cleared from a particular area. (Tortora 2009), Onset in 4-8hr. Examples: glomerulonephritis of systemic lupus erythematosus; rheumatoid arthritis; penicillin allergy (Waugh & Grant, 2004).

Type IV (cell-mediated): Are delayed reactions (12–72hours after exposure). Occur when allergens are taken up by antigen-presenting cells that present the allergen to T cells, which later stimulate an inflammatory response. Example: Mycobacterium tuberculosis infection (Tortora 2009).

Q:18: The major nursing interventions for a patient with hemolytic anemia focus on:-

- a) Protection from injury, understanding of the condition.
- b) Reduced stress, absence of infection.

- c) Improved nutrition status, absence of infection.
- d) Protection from injury, absence of infection.

Management of anemia is aimed at correcting or controlling the cause of the anemia and replacing the lost blood.

Q:19: During pre-operative period, the drugs used to achieve sedation, reduce and cause amnesia include:

- a) Diazepam, ranitidine.
- b) Diazepam, scopolamine.
- c) Midazolam, diazepam.
- d) Atropine sulfate, midazolam.

Q:20: When a nurse is monitoring a patient for cerebrospinal fluid (CSF) leal he/she should observe for:-

- a) Halo sign.
- b) Babinski reflex.
- c) Illopsoas sign.
- d) Blumberg sign.

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JANUARY, 2009 PAPER TWO

Part I

Q:1 The trophoblast cells of the developing zygote from the:-

- a) Fetus and amnion
- b) Placenta and fetus
- c) Chorion and amnion
- d) Placenta and chorion

About 8 days after fertilization, the trophoblast develops into two layers (syncytiotrophoblast and cytotrophoblast) in the region of contact between the blastocyst and endometrium. The extraembryonic mesoderm, together with the two layers of the trophoblast together form the chorion. The amnion is a thin protective membrane that develops from the cytotrophoblas (Tortora & Derrickson, 2009).

Q:2: If Mrs. Cola's menstrual period was on 27.7.08, her expected date of delivery will be:-

- a) 3.4.09
- b) 4.5.09
- c) 3.5.09
- d) 4.4.09

To calculate the EDD, add 7 days to the first day of the LMP, then subtract 3 months. (If dates cross over to the next month add 1 month to the result)

Q:3: In focused antenatal care, the second dose of sulfadoxine pyrimethamine (sp) is administered at gestation of:-

- a) 16-28 weeks
- b) 20-30 weeks.
- c) 28-34 weeks.
- d) 34-36 weeks.

Pregnant women should be given 2-3doses of SP at least 4weeks apart; usually the first in the second trimester (between 16 and 27wks) and the second in third trimester (between 28 and 36wks)(MOH, 2009).

Q:4: The diastolic pressure is usually not affected by excitement, its increase is therefore more significant in assessment of pregnant women for pre-eclampsia. The range of change in mmHg is:-

- *a*) 10-15
- b) 15-20
- c) 15-30
- d) 20-30

Blood pressure of 140/90 mmHg or more or an increase of 30 mmHg in systolic and/or 15 mmHg in diastolic blood pressure over the pre-or early pregnancy level (if the "usual level" is known), is considered pathologic.

In mild pre-eclampsia, the diastolic pressure rises 15-20 mmHg above the "usual" level

In severe pre-eclampsia, the diastolic pressure rises >20mmHg above the "usual" level.

Q:5: The management of placenta previa type three when the fetus has died in utero includes:-

- a) Preparation of woman for emergency caesarian section.
- b) Induction of labour by use of syntocinon.
- c) Gentle palpation through vaginal forncles to determine whether posterior or anterior.
- d) Complete bed rest and speculum examination on third day.

Caesarean section is indicated in placenta previa centralis whether incomplete (Type III) or complete (Type IV) even if the foetus is dead.

Q:6: The hormonal factor responsible for uterine contractions at onset of labour are:-

- a) Increase release of oxytocin progesterone from deciduas at term.
- b) Formation of oxytocin and estrogen in the fetal circulation.
- c) Rise of oxytocin and estrogen in the fetal circulation.
- d) Optimum levels of estrogen and rise of prostaglandins in maternal circulation.

Because progesterone inhibits uterine contractions, labor cannot take place until its effects are diminished.

Toward the end of gestation (onset of labour), estrogen levels in blood rise sharply, overcoming the inhibiting effects of progesterone.

High levels of estrogens;

- Cause the number of receptors for oxytocin on uterine muscle fibers to increase, and cause uterine muscle fibers to form gap junctions with one another. Oxytocin stimulates uterine contractions
- Stimulates the placenta to release prostaglandins, which induce production of enzymes that digest collagen fibers in the cervix, causing it to soften.

These mark the onset of labour!

/The estrogen rise is from increasing secretion of corticotropin-releasing hormone by the placenta, which stimulates the anterior pituitary gland of the fetus to secrete adrenocorticotropic hormone (ACTH). ACTH stimulates the fetal adrenal gland to secrete cortisol and dehydroepiandrosterone (DHEA), the major adrenal androgen. The placenta then converts DHEA into an estrogen}.

Q:7: Fetal axis pressure is a physical change that is more significant during:-

- a) Early stages of labour transmitting the force of contraction to the upper pole of fetus.
- b) Second stage of labour when membranes are intact.
- c) Active and second stages of labour when membranes are ruptured.
- d) Second stage of labour transmitting the force of contraction to the lower pole of the uterus.

Contractions have the effect of elongating the uterine ovoid with a corresponding decrease in the horizontal plane.causing straightening the fetal vertebral column, thereby bringing the upper pole of the fetus in solid direct contact with the contracting uterine fundus while the lower pole is directed downward and pushed into the pelvis. Known as **foetal axis pressure**, this also results in the exertion of pressure against the cervix and lower uterine segment, thereby increasing cervical effacement and dilatation

Q;8: If membranes rupture at cervical dilation of 8 centimeters, a vaginal examination performed should rule out:-

- a) Obstructed labour, cord prolapse, fetal compromise.
- b) Cord prolapse, cord presentation, fetal distress.
- c) Obstructed labour, cord prolapsed, prolonged labour.
- d) Maternal distress, prolonged labour, cord presentation.

Any time after membranes rupture a VE should rule out cord prolapsed, cord presentation and fetal distress- evidenced by mconium-stained liquor. If the cord is prolapsed it is necessary to detect whether it is pulsating i.e. living foetus or not i.e. dead foetus but this should be documented by auscultating the FH.

Q:9: The partograph is an effective tool in management of women in labour, a good progress in the active phase will be:-

- a) Cervical dilatation plotted progressively on alert line within 7 hours.
- b) Uterine contractions increasing in strength form 20-25 seconds within 8 hours.
- c) Cervical dilation plotted on the action line and progressive descent.
- d) Cervical dilatation plotted on the right of the action line.

Q:10: At primary level of ant-retroviral prophylaxis for PMTCT (prevention of mother to child transmission), a HIV-positive woman should take:-

- a) Nevirapine 300 mgs at onset of labour.
- b) Nevirapine 200 mgs at onset of labour.
- c) Zidovudine 300 mgs 3 hourly for 12 hours.
- d) Zidovudine 2mg/ kilogram body weight within three days of delivery.

Antenatal

- AZT 300 mg BD starting at 14 weeks or soon thereafter; at any other time upto 38 weeks. No dietary restrictions.

Intrapartum

-AZT 600 mg STAT (or 300mg BD) + 3TC 150mg BD + single-dose NVP 200 mg onset of labour

Post partum

-Give AZT 300mg BD +3TC 150mg BD for seven days (NASCOP: PMTCT Training Curriculum, 2010)

Q:11: The initial characteristics of rigid cervix in cervical dystocia include:-

- a) Thin, tight, unyielding.
- b) Thick, tight, edematous.
- c) Long, thick, edematous.
- d) Thick, edematous, unyielding.

Cervical dystocia involves failure of the cervix to dilate within a reasonable time in spite of good regular uterine contractions. Dystocia should not be diagnosed before active phase of labour. The cervix is usually effaced 70-100% but remains tight and unyielding.

- Q:12: Perineal trauma is common in delivery of face to pubis due to:
 - a) Irregular shape of the face as a presenting part.
 - b) Persistent occipito-posterior position when occiput becomes the leading part.

- c) Large Tpresenting mentovertical diameter.
- d) Large presenting ocipito-frontal and biparietal diameters.
- Q:13: After birth, the functional closure of ductus arteriosus takes place within:
 - a) 1-2hours.
 - b) 2-4 hours
 - c) 4-6 hours
 - d) 8-10 hours
- Q:14: The anti-opioid drug used in resuscitation of the newborn is:
 - a) Konakion 0.5 mg intramuscularly.
 - b) Dexamethosone 1-2mg Intravenously.
 - c) Narcan 0.1 mg/kilogram body weight intravenously.
 - d) Naloxone 0.5 mg intravenously.

Intravenous opioids cross the placenta and can cause depression of the respiratory centre and asphyxia. They are associated with increased incidence of non-reassuring fetal heart rate (NRFHR), lower fetal base excess, and decreased fetal respirations and tone at birth when compared with neuraxial anesthesia (Berghella, 2007).

Naloxone (Narcan) 0.1 mg/kg given IV or IM (preferably IV for fast action) will both diagnose and treat a toxic exposure to narcotics/opioids (Cantor & Sadowitz, 2010). It is a pure opioid antagonist, and is the drug of choice in treatment of maternal or neonatal respiratory and neurobehavioral depression secondary to opioid agonist agents (Berghella, 2007).

- Q:15: The anti-infective factor that is abundant in human milk but absent in cow's milk is:
 - a) Lysozyme.
 - b) Lactoferin.
 - c) Colostrums.
 - d) Bifidus.

Numerous immunologic factors in breast milk (including secretory IgA, lysozyme, lactoferrin, bifidus factor, and macrophages) provide protection against GI and upper respiratory infections.

Q:16: Injury to the fetal scalp due to pressure by girdle of contact is known as:-

- a) Cephalhaematoma.
- b) Pericranial hematoma.
- c) Subdural oedema.
- d) Caput succedaneum.

Cephalohematoma is a collection of blood under the periosteum. On palpation, cepha-lohematomas are fluctuant but do not cross suture lines.

Q:17: The peak action syntocinon administered to prevent post-partum hemorrhage is felt in:-

- a) $2\frac{1}{2}$ minutes.
- b) 2 minutes.
- c) 2 seconds.
- d) $2\frac{1}{2}$ seconds.

Oxytocics (Oxytocin, syntocinon) act on the pregnant uterus within 1 minute if injected IV, within 2 minutes if injected IM and its action lasts for 30 minutes (El-Mowafi, 2002).

Q;18: The exogenous causative organisms to puerperal infection include:-

- a) Escherichia coli, clostridium welchii.
- b) Streptococcus faecalis, haemolytic streptococcus.
- c) Staphylococcus aureus, Escherichia coli.
- d) Haemolytic streptococcus aureus.

Puerperal sepsis occurs due to colonization of the genital tract by microorganisms introduced from within (infection of endogenous origin), or from outside (infection of exogenous origin).

Endogenous infections are caused by vaginal and/or rectal bacteria (commensals). These bacteria can become harmful if (i)introduced by examining finger or by instruments during pelvic examinations; (ii)they ascend into the uterus during premature and prolonged rupture of the membranes; or (iii) there is bruised, lacerated or dead tissue.

Pathogens include

- Escherichia coli (bowel and the vagina)
- Streptococcus faecalis (lower intestine and anus).
- Bacteroides fragilis (GI tract and vagina)

- Streptococcus agalactiae (vagiana)
- Clostridium welchii (vagina)

Q:19; Mrs Dodo para 6+ 0 comes to the postnatal clinic at six weeks and demands for bilateral tubal ligation, the midwife should:-

- a) Reassure and encourage her to continue with lactational amenorrhea method.
- b) Schedule for return date in order to prepare for the procedure.
- c) Check whether pregnancy test is negative then provide the demanded method accordingly.
- d) Take in-depth medico-social history and encourage partner participation.

TL is a Category C contraceptive i.e. the procedure is normally conducted in a routine setting, but with extra preparation and precautions.

TL is a permanent FP method hence a client needs thorough and careful counselling before she decides to have this procedure. An informed consent form must be signed by the client in all cases. Spousal consent is not mandatory, but counselling should be provided to both partners and consent obtained from both, if possible, and where appropriate (DRH, 2010).

It can be used by women who are less than seven or more than 42 days postpartum.

In question 20, indicate whether the following statements are TRUE or FALSE by indicating the correct answer sheet provided.

- Q:20: a) Immunization in the newborn should be administered earlier than the time when maternal antibodies diminish and his body defense mechanism mature.
- b) Maternal death is defined as death of a woman during pregnancy, labour or 42 days after delivery or abortion.

Part II: Short Answer Questions

Q:1: Draw and label a diagram of the uterus showing the fundal heights at 12th, 24th, 30th, 36th, 40th weeks of gestation.

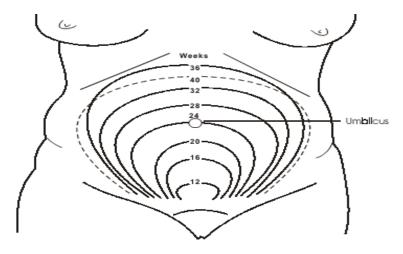


Image from: MHD (2005). Guidelines for Pregnancy Care and Management of Common Obstetric Complications by Medical Officers. India

Q:2: Outline the second line of treatment for smear positive mild to moderate malaria in pregnancy.

Daily dose of 30mg/kg of oral quinine in 3 divided doses

Q:3: Myometrium has a unique role in good progress of labour and control of bleeding during the third stage. Describe the muscular structure of the myometrium.

The myometrium (middle layer) consists of three layers of smooth muscle fibers that are thickest in the fundus and thinnest in the cervix. The thicker middle layer is circular; the inner and outer layers are longitudinal or oblique.

During labor, coordinated contractions of the myometrium in response to oxytocin from the posterior pituitary help expel the fetus from the uterus.

Q:4: Write notes on retained placenta using the following headlines:-

a) Definition

Failure of the placenta to be delivered within 30 minutes after delivery of the foetus

- b) Preventive measures.
- c) Aspects of specific management.

Manual removal of the placenta under general anaesthesia:

- The right hand is introduced along the umbilical cord into the uterus while the left hand is supporting the uterus abdominally.
- The lower edge of the placenta is identified and by a sawing movement from side to side the placenta is separated from its bed.
- The placenta is grasped and delivered
- It is finally examined the place together with membranes for completeness

Q:5: Outline five signs of actual rupture of uterus following obstructed labour.

- Foetal parts are prominent and felt easy.
- The presenting part recedes upwards.
- The uterus is felt separated from the foetus
- Cessation of uterine contractions
- Disappearance of foetal heart sounds

Q:6; Discuss four predisposing factors to amniotic fluid embolism.

- Placenta abruption-placenta bed is disrupted
- Rupture of membranes
- Hypertonic uterine action
- Caesarean section
- Inter-uterine manipulation e.g. podalic version
- Invasive procedures of the uterus e.g. intrauterine catheterization
- Q:7: Describe the neuro-endocrine control of breast milk release.
- Q:8: State three tests performed on cord blood in management of haemolytic disease of the new born.
- Q:9: Mrs. Cole complains of heavy red lochia loss during a postnatal home visit on the 10th day post-partum.

Name and define the obstetric condition that Mrs. Cole is suffering from.

Outline three possible causes of Mrs. Cole health problem.

Part III: Long Essay Questions

- Q:1: Miss Kazi comes for her third focused antenatal care clinic visit at 32 weeks of gestation. A diagnosis of pregnancy induced hypertension is made on history and examination.
 - a) State six signs of impending eclamplasia.

Imminent/impending eclampsia is a state in which the patient is about to develop eclampsia.

Signs include:

- Blood pressure much higher than 160/110 mmhg ,
- *− Heavy proteinuria* (+++*or* ++++),
- Hyperreflexia,
- Severe continuous headache,
- Blurring of vision,
- Epigastric pain.
- b) Describe the stages of an eclamptic fit.

- **Premonitory** (10-20sec): eyes are rolled up with twitches of the face and hands.
- **Tonic** (10-20 sec): generalised tonic contraction of the whole body muscles with opisthotonus and cyanosis.
- Clonic (about 1min): convulsions occur where there is alternative contraction and relaxation of the body muscles. The face is congested, tongue may be bitten, frothing on the mouth, breathing is stertorous, urine and stool may pass involuntarily, temperature rises due to increased muscular activity hen patient becomes unconscious.
- Coma (may last for few hours). Involves a deep state of unconsciousness. Other fits may occur during coma, after recovery or may not recur again.
 - c) Describe the magnesium sulphate regimen used in the management of Miss Kazi.
 - Admit in a quiet room
 - Assess level of consciousness
 - Manage airway, breathing and circulation
 - o Clear airway
 - Nurse in lateral position
 - o Introduce a mouth gag or plastic airway
 - Put an indwelling catheter:
 - o Start an input-output chart
 - Check for proteinuria
 - Prevent convulsions by starting Magnesium sulphate (MgSO₄)

Loading dose

- $MgSO_4 4 g IV as 20\%$ solution slowly over a period of 10-15 min.
- Follow promptly with 10 g of 50% MgSO₄ solution, 5 g in each buttock as deep IM injection with 1 ml of 2% Lignocaine in the same syringe.
- [If convulsions recur after 15 minutes]
- Give 2 g of MgSO₄ as 20% solution IV over 5 minutes.

Maintenance dose

- 5 g of MgSO₄ as 50% solution + 1 ml of 2% Lignocaine given as deep IM 4 hourly into alternate buttocks.
- Continue treatment for 24 hours after delivery or the last convulsion, whichever occurs later.

NB

- i. [Before repeat administration/ maintenance dose, ensure that:]
 - o the RR is at least 16 breaths/minute
 - o knee jerk reflexes are present
 - o urinary output is at least 25–30 ml per hour for 4 hours (100 ml in 4 hours).
 - o the antidote (Calcium gluconate) is ready

- ii. [A 20% solution can be prepared by diluting 50% Magnesium sulphate solution with water for injection. Take 8 ml of the 50% solution and 12 ml of the diluting fluid to prepare 20 ml of the 20% solution]
- iii. [Calcium gluconate is given as 1 g IV, 10 ml of 10% solution for 10 min or until respirations begin]
 - d) State two complications associated with magnesium sulphate.

Respiratory distress

Q:2: Mrs. Kyoto has ruptured membranes and a loop of the umbilical cord is visible at the vulva.

a) Differentiate between cord prolapsed and cord presentation.

In cord presentation: a loop of cord lies below/ in front of the presenting part when membranes are intact.

In cord prolapse: a loop of cord lies below/ in front of the presenting part when membranes are intact.

b) State six predisposing factors to cord prolapse.

Foetal factors:

- Malpresentation e.g. complete or footling breech.
- Transverse and oblique lie
- Prematurity.
- Anencephaly.
- Multiple pregnancies (especially for 2nd Twin).
- Long cord.

Maternal factors

- Contracted pelvis.
- Pelvic tumours.
- Placenta praevia.
- Polyhydramnios (especially with sudden rapture of membranes).
 - c) Describe the specific nursing management of Mrs. Kyoto until she delivers.
- Check whether the cord is pulsating
- Assess cervical dilatation and presentation and pelvic adequacy

If the cord is pulsating

- Explain to the mother the situation at hand and give reassurance.
- Put the woman on oxygen by mask/nasal prongs.
- If the cord is within the vagina relieve pressure on it as appropriate by:
 - Stopping any syntocinon infusion to reduce contractions
 - o Pushing up the presenting part.

- Keeping the fingers in the vagina especially with contractions
- o Positioning the woman in knee-chest or exaggerated Sim's position
- o Elevating the foot of the bed
- If the cord is outside the vagina, gently replace it in the vagina to keep it warm and prevent spasm.
- Ensure the theatre team is informed.
- Prepare the patient for theatre: consent; IV line and rehydration; blood for grouping and crossmatch.
- Continue elevating the presenting part until the patient is in theatre.

If in 2nd stage with adequate pelvis, longitudinal lie and no malpresentation: encourage the mother to push. A generous episiotomy may be given to hasten the delivery of the baby or an assisted vacuum extraction done if necessary.

If the Cord is not Pulsating:

- Inform the patient of the situation.
- If in 1st Stage, with an adequate pelvis, let labour progress and expect a fresh stillbirth.
- If in 2nd Stage, check FHR and encourage the woman to push and expect asphyxiated/distressed foetus or a stillbirth.
- In case there is a contracted pelvis, a Caesarean section should be performed in spite of the death of the foetus.

JANUARY, 2009: PAPER THREE

Part I: Multiple Choices Questions:

Q:1: Cross immunity can be define as:-

- a) The immunity level that is present in a population group.
- b) Long term and sometimes life-long resistance that is acquired either naturally or artificially.
- c) Short-term resistance that is acquired either naturally or artificially.
- d) A situation in which a person's immunity to one agent provides immunity to another related agent.

Q:2: Ergonomic factors include:-

- a) The responses and behavior that workers exhibit on the job.
- b) Living organism found in the work environment.
- c) All the interactions between the worker, the demands of the job, the work setting and the environment.

- d) Structural elements of the workplace that influence worker health and productivity.
- Q:3: A child growing within normal developmental milestones will be able to have good head control at the age of:
 - a) 3-6 months.
 - b) 6-9 months.
 - c) 12-18 months.
 - d) 20-24 months

Q:4: Campylobacter jejuni:-

- a) Is isolated less frequently from infants and young adults.
- b) Grows best in an environment of less oxygen than the amount in the atmosphere.
- c) Tolerates drying.
- d) Infections always occur as outbreaks.
- Q:5; The clinical picture of trachoma in stage four would be:
 - a) Trichiasis and follicles.
 - b) Pannus and follicles.
 - c) Entroplon and scars.
 - d) Entroplon and Trichiasis.
- Q:6: Familiarization assessment as a type of community needs assessment involves:
 - a) The researcher focusing on single problem and studies the community in terms of that problem.
 - b) Examining a single facet of community life.
 - c) An in-depth survey of the entire community.
 - d) Studying data already available in the community and gathering a certain amount of first hand data.
- Q:7; The direct health effects of ozone depletion include:
 - a) Increased risk for skin cancer and breast cancer.

- b) Increased risk of skin cancer and cataracts.
- c) Increased risks of cataracts and exposure to vector borne diseases.
- d) Increased population exposure to vector borne diseases and increased risk for skin cancer and cataracts.

Q:8: The vaccine that is heat stable not destroyed rapidly at room temperature and remains active for atleast 6 weeks at 37degrees c is:-

- a) Pentavalent.
- b) BCG
- c) Tetanus toxoid
- d) Measles.

Q:9: the number of deaths from all causes during a given year divided by the population estimated at midyear times a thousand is referred to as the:-

- a) Crude death rate.
- b) Age specific death rate.
- c) Cause-specific death rate.
- d) Case fatality ratio.

Q:10: In the treatment of tuberculosis, the "DOTS" approach refers to:-

- a) Patient getting TB treatment as close to home as possible.
- b) Patient adheres to treatment during the intensive phase only.
- c) Directly observed treatment with weekly monitoring.
- d) Patient takes every drug dosage under supervision during the intensive phase.

Q:11: The following is an adverse effect of Nevirapine:-

- a) Bone marrow suppression
- b) Hepatotoxicity.
- c) Peripheral neuropathy.
- d) Gastro-intestinal intolerance.

Q:12: When health care is geographically, financially and culturally within reach of the entire community, the service is said to be:-

- a) Available
- b) Acceptable.
- c) Accessible.
- d) Affordable.

Q:13: The habit disorders you can discover while assessing the psychological aspect of school children include:-

- a) Temper tantrums, thumb sucking.
- b) Thumb sucking, bedwetting
- c) Temper tantrums, delusions.
- d) Bedwetting, hallucinations.

Q:14: In a community, evidence of continuity of quality health care includes:-

- a) Lower all-cause mortality, better access to care.
- b) Better access to care, increased uptake of disease-focused preventive care.
- c) Lower all-cause mortality, increased satisfaction with services.
- d) Better access to care, increased satisfaction with services.

Q:15: The purpose of a screening test is to:-

- a) Diagnose persons with the disease.
- b) Collect data for a mass campaign.
- c) Check whether a population is at risk of a disease.
- d) Detect person with risk factors or subclinical disease.

Q:16: One of the targets for improved maternal health under the Millennium Development Goals (MDG)is to reduce by:-

- a) Half maternal ratio.
- b) Two thirds maternal mortality ratio.

- c) A quarter maternal mortality ratio.
- d) Three quarter maternal ratio.

Q:17: An assessment of family health will be most accurate if it incorporates the following guidelines:-

- a) Focusing on the family as a total unit, collection of data once.
- b) Collecting of data once, exercising professional judgment.
- c) Focusing on the family as a total unit, combining quantitative and qualitative data.
- d) Using quantitative data, exercising professional judgment.

Q:18: A major case of "missed opportunity" in the immunization programme is:-

- a) Failure of the cord chain.
- b) Vaccine stock outs.
- c) Use of vaccines that have lost potency.
- d) High rates of drop outs among target group.

Q: 19: The methods commonly used in Africa to measure population include:-

- a) Census and civil registration.
- b) Census and special surveys.
- c) Civil registration and special surveys.
- d) Census and ethnographic surveys.

Q: 20: Non-organic growth failure in a child may be attributed to:-

- a) Altered physiology due to improper feeding.
- b) Congenital disorders of metabolism.
- c) High incidence of child abuse.
- d) A poor mother-child bond of attachment.

Part II: Short Answer Questions:

Q:1: State five factors that influence acceptance and continuation of family planning.

- Q:2: Explain three sources of information for epidemiological studies.
- Q:3: Write the scientific names of organisms that cause:
 - a) Visceral elephantiasis
 - b) Elephantiasis.
 - c) Cholera.
 - d) Plague.
- Q:4: Outline the six steps of problem solving process in sequential order.
- Q:5: Explain the following elements of a disaster management policy.
 - a) Prevention.
 - b) Mitigation.
 - c) Preparedness.
 - d) Response and recovery.
- Q:6: Discuss the clinical benefits of anti-retroviral treatment (ART) to the HIV-infected person
- Q:7: State four functions of the occupational health nurse.
- Q:8: Outline four activities that are carried out during a school health service.

Part III: Long Answer Questions:

- Q1. Describe the principles of communicable disease control under the following headings:
- a) Attacking the source (8mrks)
- b) Interrupting transmission (6mrks)
- c) Protecting the host (6mrks)
- Q2. At more than 3% annual population growth rate, Kenya is experiencing the negative effects of population explosion.
- a) Discuss the negative effects of rapid population growth (15mrks)
- b) State five factors that may hinder the practice of family planning (5mrks).

JULY, 2009: PAPER ONE

Part I: Multiple Choice Questions

- Q1. The Aorta divides at the level of the 4th Lumbar vertebra into:
 - a) External and internal iliac arteries
 - b) Superior and inferior mesenteric arteries.
 - c) Common iliac arteries.
 - d) Lumbar arteries.
- Q2. The organic causes of a child's failure to thrive include:
 - a) Lack of active feeding, cleft palate, HIV infection.
 - b) Chronic illness, hypothyroidism, congenital malformation
 - c) Emotional deprivation, diabetes, rickets.
 - d) Metabolic disorders, poor nutrition, tuberculosis.
- Q3.Indirect bilirubin of 2.0 mg/dl (34 mol) indicate
 - a) Multiple myeloma
 - b) Inflammatory condition
 - c) Iron deficiency anaemia
 - d) Haemolysis red blood cells.
- Q4. The adults' dose of Nitrofurantoin is:
 - a) 50 -100 mg four times a day
 - b) 25 -50 mg 6 hourly
 - c) 15-50 mg 8 hourly
 - d) 100-200 mg twice daily.
- Q5. When inserting a naso-gastric tube, the nurse encourages patient to swallow as she /he pushes the tube down .This ensures that:

- a) Patient evacuates secretion from oesophagus to facilitate passage of the tube to the stomach.
- b) Minimal mucosal injury and irritation occurs as the tube passes through the oesophagus.
- c) Epiglottis closes the trachea and directs tube to oesophagus.
- d) The tube does not get entangled in the naso-pharynx.

Q6.Appropriate nursing intervention for a patient with a nursing diagnosis of "ineffective airway clearance related to weak cough" is to:-

- a) Help the patient to sit up-right
- b) Teach the patient how to cough.
- c) Administer pain medication to promote comfortable coughing
- d) Suction the patient's airway.
- Q7. The features that suggest facial palsy include:
 - a) Loss of taste, insidious onset of paralysis on the affected side.
 - b) Sudden onset of paralysis on one side of the face, pain behind the ear of the affected side.
 - c) Papiloedema, difficulty with facial expression.
 - d) Headache, sounds that seem louder on the un-affected side.
- Q8. Before any attempt to palpate the abdomen, the nurse should start by:
 - a) Gentle percussing the whole abdomen.
 - b) Checking for re-bound tenderness.
 - c) Asking the patient to point any area he/she feels pain.
 - d) Depressing the abdomen way using the palmer surface of the fingers.
- Q9. Surgical sutures that are digested and absorbed during the process of wound healing include:
 - a) catgut, vicryl, dexon
 - b) silk, catgut, linen

- c) vicryl, polypropylene, silk
- d) Polyamide, dexon, Terylene.
- Q10. In the management of a patient with breast cancer, systemic chemotheraphy is indicated:
 - a) Only for post-menopausal women with nodal involvement.
 - b) In pre- menopausal women even when no nodal involvement is detected.
 - c) In all patients with evidence of nodal involvement
 - d) Only with estrogen receptor-negative tumors.
- Q11. The humoral immune response involves
 - a) Production of antigen –specific immunoglobulin.
 - b) Release of cytokines responsible for destruction of antigens.
 - c) Direct attack of immunoglobulins.
 - d) Surveillance for malignant cell changes.
- Q12. The health messages the nurse should share with a client suffering from ulticaria include:
 - a) Use of over-the -counter antihistamines.
 - b) Application of topical benzene hexachloride weekly.
 - c) Avoidance of contact with the causative agent.
 - d) Exposing the affected area to sunshine.
- Q13. After subtotal thyroidectomy, the nurse should observe for manifestations of acute thyroid storm which include:
 - a) Hypothermia, arrhythmiasis, hypertension
 - b) Arrhythmias, laryngeal stridor, lethargy
 - c) Bradycardia, hoarse voice, bulging eyeballs.
 - d) Hyperthermia, tachycardia, hypotension.
- Q14. The intrinsic causes of airway obstruction which are indications for tracheostomy include:-

- a) Cancer of thyroid gland, ludwings's angina, barbiturate poisoning.
- b) Multiple laryngeal papilloma, tracheal trauma, cancer of pharynx.
- c) Severe head injury, poliomyelitis, fracture base of the skull.
- d) Tetanus, coma, myasthenia gravis.

Q15. An infant aged 2 months who has been categorized as having very sever pneumonia is likely to manifest with:-

- a) Difficulty in breathing, in ability to breast feed.
- b) Nasal flaring, cough.
- c) Fast breathing of 50 breaths/ minute, cough.
- d) Nasal discharge, mouth breathing.

Q16. Intravenous Ringers solution prescribed to a one (1) year old infant with severe dehydration will be administered at:-

- a) 50 mls/kg body weight in the 1st hour, then 50 mls/kg body weight in 5 hours.
- b) 20mls/kg body weight bolus, then 80 mls/kg body weight in 6 hours.
- c) 30 mls/kg body weight bolus then 70 mls/kg body weight in 6 hours
- d) 30 mls/kg body weight in the 1st hour, then 70 mls/kg body weight in 5 hours.

Q17. Complications of posterior dislocation of the hip include:-

- a) Shearing of the sciatic nerve, shortening of the limb.
- b) Post -traumatic ossification, osteoarthritis.
- c) Narrowing of the acetabulum, osteomyletis.
- d) Permanent semiflexin of the limb, atrophy of iliofemoral ligament

Q18. Laboratory results of a patient suffering from massive thermal burns will reveal:-

- a) hypocalcaemia
- b) increased liver enzymes
- c) decreased my globins in urine
- d) Lympocytosis.

For question 19 indicate whether the statements are TRUE or FALSE

Q19. a) Bacterial acid in dental plague facilitates deposition of minerals on the tooth thereby causing dental caries.

b) One of the causative factors for dental caries is highly refined carbohydrates.

For question 20 match the symptoms in column A with eye conditions in column B by indicating the correct answer on the answer sheet provided

Q20 COLUMN A

- a) Occasional headaches, frequent change of glasses
- b) Severe unilateral headaches, diminution of vision

COLUMN B

- 1. Congenital glaucoma
- 2. Primary open –angle glaucoma
- 3. Secondary angle –closure glaucoma
- 4. Acute primary angle –closure glaucoma

JULY 2009: PAPER FOUR

Part I: Multiple Choice Questions

- Q1. The most appropriate sequence in problem solving would be:
 - a) Identify the problem, identify possible solutions, select the best solution, take action to solve the problem, evaluate the implementation.
 - b) Identify the possible solution, select the best solution, identify the problem, take action to solve the problem, evaluate the implementation.
 - c) Identify the problem, take action to solve the problem, identify the possible solution, select the best solution, evaluate the implementation.
 - d) Take action to solve the problem, evaluate the implementation, select the best solution, identify the problem, identify possible solution.
- Q2. A manager who is involved in structuring activities into operational groups engages in a role of:
 - a) Job designing

- b) Staffing
- c) Scheduling
- d) Organizing
- Q3. Lateral thinking in a problem solving process involves:
 - a) Creativity on the use of a series of dimensions examined in relation to each other including the possible elements in each dimension.
 - b) A logical deduction in which an indisputable solution in arrived at by analyzing the existing factual information.
 - c) The use of various techniques associated with challenging the preconceptions and rejecting "yes/No" thinking.
 - d) Suspension or judgement on other peoples "ideas to allow everyone to talk freely leading to generation of more and new ideas regardless of whether they make sense or not.
- Q4. A budgetary process where information is gathered for re- justification of all expenditure is
 - a) Performance budget
 - b) Zero -based budget
 - c) Operating budget
 - d) Supplementary budget.
- Q5. When a nurse manager's power comes into conflict with other powers the conflict is referred to as:
 - a) power conflict
 - b) power crisis
 - c) power engagement
 - d) confrontational power
- Q6. According to Carl Roger's theory of student centered learning:
 - a) Learning occurs when the learner perceives relevance related to his/her purposes.
 - b) Students must be supervised to learn.

- c) People learn for self enhancement rather than simply for utility
- d) There are categorized domains of learning.
- Q7. A core factor which would influence the curriculum developemt process is:
 - a) natural calamities
 - b) political events
 - c) student unrests
 - d) teacher characteristics
- Q8. In group dynamics, frank communication with genuine and empathetic listening develops in the:
 - a) Forming stage
 - b) Norming stage
 - c) Teaming stage
 - d) Storming stage
- Q9. An educational objective that requires learners to internalize complex values is classified under:
 - a) cognitive domain
 - b) value system domain
 - c) affective domain
 - d) psychomotor domain

JULY 2010-PAPER ONE

Part I- Multiple Choice Questions

- Q1. The celiac artery has three primary branches, namely;
 - a) Left inferior phrenic, right gastric and left gastro-epiploic arteries.
 - b) Left gastric, splenic and common hepatic arteries.
 - c) Common hepatic, right gastric and left gastro-epiploic arteries.
 - d) Gastroduodenal, cystic and right gastro-epiploic arteries

Q2. While planning a meal for a patient suffering from atherosclerosis, the nurse should include:

- a) 30% of daily calorie intake with 10% saturated fats
- b) 20% of daily calorie intake and 400mg 0f daily cholesterol intake.
- c) 50% of daily calorie intake with 5% polysaturated fats
- d) 10% of daily calorie intake with 10% monounsaturated fats

Risk factors for atherosclerosis can be divided into two categories: those that can be modified and those that cannot.

Nonmodifiable risk factors include:

- Age
- Gender
- Ethnicity
- Genetics: predisposition for hyperlipidemia

Modifiable risk factors include:

- Diabetes mellitus
- Hypertension
- Smoking
- Obesity
- Q3. On assessing a 15month old infant, the nurse would expect him to:
 - a) Follow one-step command with gesture, use two words to communicate.
 - b) Use two word combination, point to five body parts when named.
 - c) Follow one-step command without gesture, use four words to communicate
 - d) Use seven words to communicate, point to one body part when named

Q4. Aspartate aminotransferase:-

- a) Decreases below 35u/ml with hepatocellular injury
- b) Decreases to 2u/ml with increase of alkaline phosphates
- c) Rises above 13u/ml with billiary obstruction
- d) Rises above 40 u/ml with hepatocellular injury

Aspartate Aminotransferase is an enzyme normally present in body serum and in certain body tissues especially the heart and liver. The enzyme affects the intermolecular transfer of an amino-group from aspartic acid to Alpha-ketoglutaric acid, forming glutamic acid and Oxaloacetic acid.

The enzyme is released into the serum because of tissue injury and may increase as a result of Myocardial Infarction and Liver damage. Normal findings for adults are 8-20U/L or 5-40IU/L

Q5. Clinical features of hydatidiform mole include;

- a) Positive pregnancy test of urine diluted to 1:100 after 4weeks of amenorrhea, ultra sound shows the fetus
- b) Amenorrhea followed by vomiting, breast changes.
- c) Uterus larger than dates, chorionic gonadotrophin hormone in urine increased

- d) Amenorrhea followed by intermittent bleeding, fetus demonstrated in X-ray *Hydatidiform mole* is a type of gestational trophoblastic neoplasm that occurs in 1 in 1,000 pregnancies. Delayed menses with spotting is the most common sign. Hyperemesis and uterine enlargement beyond that expected for gestational dates are also indicative. Treatment consists of suction curettage followed by monitoring serial beta-human chorionic gonadotrophin (HCG) levels, which usually take about 2.5 months to return to normal.
- Q6. Symptoms of dermatomyositis include:
 - a) Erythroderma, symmetric proximal muscle weakness
 - b) Dermatitis, extreme joint pains
 - c) Photosensitivity, intermittent fever
 - d) Widespread calcium nodules, muscular atrophy
- Q7. During neurological assessment of a patient, the nurse notes that the patient:-
 - -Opens one eye only when his body is shaken
 - -Can name only 2 organs of his body
 - -Moves one leg only when stimulus is applied

His rating on the Glasgow coma scale is?

- a) 9
- b) 11
- c) 10
- d) 13

JANUARY 2011 PAPER TWO

Part I: Multiple Choices Questions:

- Q1. Fetal causes of early pregnancy loss include:
 - a) Structural abnormalities of the genital tract
 - b) Bicornulate uterus and fibroids
 - c) Chromosomal abnormalities of the conceptus
 - d) Infections such as rubella, listeria and Chlamydia
- Q2. The outcome of labor is not dependent on:
 - a) Effectiveness of uterine contractions
 - b) Maternal size
 - c) The "give" of the pelvic joints
 - d) The degree of moulding of the fetal head

Q3. In monitoring fetal well being using the fetal kick chart, you will tell the client to notify you if she counts:-

- a) More than 10 movements in 3hours
- b) Less than 10 movements in 3hours
- c) More than 10 movements per hour
- d) Less than 10 movements per hour

The Count To Ten method and the Chart method are commonly used for personal fetal well-being surveillance.

Count-to-Ten Movement Counting Method

- i. Schedule one count session daily.
- ii. Count at the same time each day—e.g., at 8:00 a.m., or select convenient time and when the fetus is usually active.
- iii. Chart how long it takes to reach 10 movements.
- iv. There must be at least 10 movements identified in 10 hr.
- v. If there are **fewer than 10 movements in 10 hr**, if it takes an increasing time to reach 10 movements, or if no movements are felt within 10 hr, call your midwife.
- vi. With any reported decreased fetal movement, she should focus on fetal activity for **1 hour**, (preferably when she is resting, well fed, and hydrated). If, during that hour, the woman counts **less than 3 movements**, the care provider should be notified and an Auscultation or Non-Stress Test (NST) performed. (Verney, 2004).

Chart method

NB: With less than 10movements in 10hrs, the midwife should be notified

- Q4. During discharge, an important advice for the breastfeeding mother is to:
 - a) Routinely avoid onions, cabbage and chocolate
 - b) Keep her calcium intake the same as during pregnancy
 - c) Increase her calories over her pregnancy requirements
 - d) Return to her pre-pregnancy intake for proteins but not calories
- Q5. The part of the uterus in which a contraction begins is:
 - a) Cornua
 - b) Fundus
 - c) Isthmus
 - d) The body or corpus
- Q6. The follicle stimulating hormone and luteinizing hormone are secreted by the:
 - a) Ovaries and testes
 - b) Posterior pituitary gland

- c) Anterior pituitary gland
- d) Hypothalamus
- Q7. Uterine contractions are controlled by the:
 - a) Central nervous system
 - b) Sympathetic nervous system
 - c) Peripheral nervous system
 - d) Autonomic nervous system

Autonomic nerves convey stimuli resulting in largely unconscious, reflex bodily adjustments mediated by acetylcholine (parasympathetic system) or norepinephrine (sympathetic). The parasympathetic system initiates cervical dilatation and involuntary uterine contractions.

- Q8. The volume of amniotic fluid after 20 weeks gestation is:
 - a) 500 to 1000 ml
 - b) 350 to 500 ml
 - c) 200 to 500 ml
 - d) 1000 to 1500 ml

Amnioticfluid is maximal at 34weeks (750 to 800ml) then decreases towards term (600ml) and beyond.

- Q9. The ectoderm differentiates to form the:
 - a) Cardiovascular system
 - b) Peripheral nervous system
 - c) Respiratory tract
 - d) Connective tissues
- Q10. The hormone that maintains endometrium and stimulates maternal metabolism and development of breast alveoli during pregnancy is:
 - a) Human chorionic gonadotrophin
 - b) Human placental lactogen
 - c) Oestrogen
 - d) Progesterone

Progesterone, secreted mainly by cells of the corpus luteum, cooperates with estrogens to prepare and maintain the endometrium for implantation of a fertilized ovum and to prepare the mammary glands for milk secretion (Tortora, 2009).

- Q11. The anteroposterior diameter of the pelvic outlet measures:
 - a) 12 cm
 - b) 13 cm

- c) 11 cm
- d) 10 cm
- Q12. During pregnancy, the glomerular filtration rate:
 - a) Only changes when pathological conditions are present
 - b) Is directly influenced by the woman's posture
 - c) Increases significantly above pre-pregnant levels
 - d) Makes the most dramatic changes near birth

Renal blood flow and glomerular filtration rate increases by 50% in pregnancy (El-Mowafi, 2002).

- Q13. Signs of cardiac decompensation in a pregnant woman with cardiac disease are likely to appear at:
 - a) 28-32 weeks gestation
 - b) 36-40 weeks gestation
 - c) 12-16 weeks gestation
 - d) 20-24 weeks gestation
- Q14. 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 rotation
 - c) Descent
 - d) Extension
- Q15. Closure of the newborns foramen ovale occurs when:
 - a) Blood flows from the pulmonary artery to the aorta
 - b) PO2 is increased causing constriction to occur
 - c) The umbilical cord is severed
 - d) Left atrial pressure exceeds right atrial pressure
- Q16. The newborn with post maturity syndrome is at high risk for cold stress due to:
 - a) Absence of vernix
 - b) Decreased subcutaneous fat
 - c) Parchment like skin
 - d) Extended posture
- Q17. Presence of Meconium in the newborn's lungs:
 - a) Leads to respiratory alkalosis

- b) Prevents air leaks
- c) Traps inspired air in the alveoli
- d) Prevents air from entering the airway

Q18. Symptoms of superficial thrombophlebitis include:-

- a) Local redness and tenderness in a portion of the vein
- b) Edema of the ankle and lower leg
- c) Pain in the affected leg and foot
- d) Positive Homan's sign

For question 19 indicate whether the statements are TRUE or FALSE on the answer sheet provided.

Q19. a) In the management of shoulder dystocia, Wood's Maneuver is executed by exerting pressure on the anterior fetal shoulder to achieve rotation-*F*

Woods manoeuvre to rotates the foetus as a screw between the resisted promontory and symphysis.

Two fingers of the right hand press the posterior aspect of the posterior shoulder to rotate it 180° anteriorly where it escapes from below the symphysis.

- b) Zavanelli Maneuver is an obstetric maneuver that involves pushing back the delivered fetal head into the birth canal in anticipation of performing a cesarean section in case of shoulder dystocia -T
- Q20. Direct causes of placenta abruption include:
 - a) Abnormally short umbilical cord, sudden loss of uterine volume
 - b) Defective vascularization of the deciduas, previous uterine surgery
 - c) Injury to the abdomen from fall or accident, multiple pregnancy
 - d) Advanced maternal age, injury to the abdomen from fall or accident

Part II: short Answer Questions

Q1. State the five leading causes of maternal mortality according to WHO indicating their percentages (5mrks)

Postpartum haemorrhage

Infection after delivery

Unsafe abortion

High blood pressure/Hypertension in pregnancy (pre-eclampsia, eclampsia)

Obstructed labour

Ectopic pregnancy

Indirect causes: anaemia, pelvic inflammatory disease

Q2.Describe the process of fertilization (4mrks)

Fertilization, or conception, normally occurs in the uterine tube within a day after ovulation.

- i. Capacitation- Binding of the spermatozoon to sperm receptors in the zona pellucida, thick envelope surrounding the oocyte. This binding triggers the rupture of the acrosome (releasing hyaluronidase and acrosin, enzymes required to penetrate the corona radiate and zona pellucida of the oocyte)
- ii. Activation Contact and fusion of the plasma membranes of the sperm and oocyte triggers oocyte activation. During activation, the oocyte completes meiosis II (becomes a functionally mature ovum).
- iii. Cortical reaction-This releases enzymes that both inactivate the sperm receptors and harden the zona pellucid; preventing polyspermy (fertilization by more than one sperm).
- iv. Spermatozoon swells, and as it forms the male pronucleus the rest of the sperm cell breaks down
- v. **Amphimixis**-After activation, the female pronucleus and the male pronucleus fuse (amphimixis) to form a zygote.
- Q3. Outline five factors that reduce accuracy of fundal height measurement in estimating duration of pregnancy (5mrks).

Foetal

- Foetal descent (normally 2-4weeks before delivery)
- Foetal size variability-being small or large for gestational age
- Twin pregnancy
- Transverse lie

Maternal

- Amniotic fliud volume-Oligohydramnios or Polyhydramnios
- Error in EDD based on wrong LMP
- Gestational diabetes
- Parity
- Placental location
- Uterine lesions e.g. fibroids

Clinician

- Technique
- Skill
- Individual biasness

Environmental

- Nutrition

Q4. State two conditions that must be met in order to establish a diagnosis of active phase labor (2mrks)

- Progressive cervical dilatation from at least 4 cm
- Progressive uterine contractions (>1 in 10min lasting 20 or more seconds)

Q5. Identify five factors that can cause deviations in labor (5mrks)

- Powers: hypertonicity, hypotonicity, incoordinate uterine action
- Passenger:fetal size or position
- Passage: size/shape of pelvis, obstruction
- Parity: primi, multy

Q6. a) List four causes of post-partum haemorrhage (2mrks)

- *Uterine atony*
- Retained placenta.
- Disseminated intravascular coagulation (DIC)
- Ruptured uterus,
- Cervical, vaginal, vulval or perineal tears/lacerations.

b) Explain the management of post-partum haemorrhage focusing on the above four causes (6mrks)

The main principles of treatment involve arresting the bleeding, restoration of the blood volume and treatment of circulatory failure (shock).

Uterine atony

- You should ascertain whether the uterus is contracted, if it is not, you should massage it to cause a contraction.
- Encourage breasfeeding if possible
- Empty bladder
- Take blood for grouping and crossmatch
- Repeat syntometrine IM then, put up an IV infusion of normal saline.
- Start syntocinon drip 20-40 units in 500ml normal saline at 40 drops per minute
- Quickly check for the separation or completeness of the placenta. If the placenta is complete and bleeding persists, perform a bimanual compression whereby the right hand is inserted into the vagina in the anterior fornix above the cervix, and the left hand is placed on the abdomen and pressed downwards onto the posterior wall of the uterus so that it is compressed between the two hands.

Retained placenta

- With incomplete or retained placenta: apply uterine massage with controlled cord traction; continue with iv infusion.
- Manual removal if CCT is unsuccessful
- If the placenta is not complete, do a bimanual compression and maintain syntocinon infusion. Inform theatre staff and prepare the patient for theatre
- Prepare the patient for theatre where manual removal of the placenta, tying of the internal iliac arteries or even hysterectomy under general anesthesia may be considered.

Lacerations

- If the placenta is delivered and is complete and the uterus is well contracted but the mother is still bleeding, check the birth canal for any tear, which may be the cause of bleeding.
- In a lithotomy position examine the patient's birth canal to determine the location and extent of the tear. Apply pressure to the tears till they are sutured. Use aseptic technique to suture the tears.
- Profuse haemorrhage from a cervical tear involving a branch of the uterine artery can be temporarily controlled by clamping the artery with an artery forceps till the patient is taken to theatre.
- Determine the level of bleeding to determine the need for transfusion or haematinics.

Coagulation disorders

- If the placenta is delivered, the uterus is well contracted and there is no tear of the perineum, which is bleeding, then you should suspect coagulation disorders. The doctor will commence the mother on fibrogen while preparation is made to transfuse fresh blood.
- Q7. Explain five risks for a baby born through caesarean section (5mrks)
- Q8. Draw a well labeled diagram showing the deep muscle layer of the pelvic floor (6mrks)

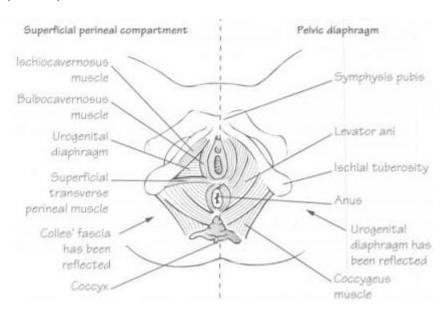


Fig: Muscle layers of the pelvic floor; From: Norwitz, E. & Schorge, J. (2001). Obstetrics and Gynecology at a glance

JULY 2011-PAPER ONE

Part I

Q1. Nursing management of contusion of the eye includes:

- a) Encouraging the client to lie supine quietly
- b) Applying a warm compressor immediately after injury
- c) Patching the eye closed until it can be examined
- d) Flushing the eye with copious amounts of water

Q2. The preferred position for a client following craniotomy is:

- a) High Fowlers position
- b) Turned to the operative side
- c) Turned to the non-operative side
- d) Low Fowlers position

Q3. Laboratory findings that are consistent with hyperthyroidism include

- a) Decreased serum triiodothyronine (T3) and thyroxine (T4) levels
- b) Elevated serum thyrotropin releasing hormone (TRH) levels
- c) Decreased radioactive iodine uptake
- d) Increased free triiodothyronine (T3) and thyroxine (T4) levels

Q4. Blood supply to gastrointestinal tract:

- a) Originates from the aorta and branches to many arteries
- b) Accounts for 10% of the cardiac output
- c) Carries absorbed nutrients away from the lumen via the hepatic vein
- d) Circulates through the liver by means of the portal vein

Q5. Breast tumours that respond best to adjuvant therapy are those that are:

- a) Estrogen-receptor positive
- b) Estrogen-receptor negative
- c) Poorly differentiated
- d) Locally infiltrating
- Q6. A patient newly diagnosed with HIV/AIDS who laments, "I can't believe I got this virus. I am going to die and everyone will know it was due to my behavior. How could I be so stupid?" is in the stage of:
 - a) Depression
 - b) Denial
 - c) Acceptance
 - d) Bargaining
- Q7. Substances that create colloid osmotic pressure in the capillaries include;
 - a) Albumin, globulin

- b) Plasma, potassium
- c) Globulin, sodium
- d) Albumin, potassium

Q8. Discharge instructions for a client with chronic respiratory acidosis should include:

- a) Discussing how to plan for periods of increased activity
- b) Teaching about a low protein, low carbohydrate diet
- c) Demonstrating exercises to increase vital capacity
- d) Encouraging participation in activities such as jogging

Q9. Inhalation anaesthetics are:

- a) Muscle-relaxants used to facilitate surgery by paralyzing skeletal muscles
- b) Non-opioid agent that produce anaesthesia or sedation
- c) Opioid agents that produce unconsciousness during surgery
- d) Organic liquids used for induction aand or maintenance of general anaesthesia

Q10. The predilection of HIV for certain cells in thee immune system results in:

- a) More T4 lymphocytes and general lymphocytopenia
- b) Fewer activated B-cells and hypogammaglobulinemia
- c) Increased response in cutaaneous hypersensitivity
- d) Susceptibility to oprtunistic infection aand neoplasm

Q11. A client with leukemia who develops tumor lysis syndrome would most likely have:

- a) An elevated serum acid phosphate level
- b) A decreased serum alkaline phosphate level
- c) AN increased serum uric acid level
- d) A decreased serum calcium level

Q12. Correct endotracheal (ET) placement is conclusively verified when:

- a) Chest excursion is asymmetrical
- b) Air emerges from the endotracheal tube
- c) Breath sounds are bilaterally equal
- d) Breath sounds are auscultated over the epigastrium

Q13. The most common preventable cause of valvular heart disease is:

- a) Congenital disease acquired intrauterine
- b) Calcium deposits and thrombus formation
- c) Marfans syndrome
- d) Beta-hemolytic streptoccocal infection

- Q14. Initial treatment for a client with warm autoimmune hemolytic anaemia includes:
 - a) Intensive immunosuppressive therapy, radiotherapy
 - b) High dose corticosteroid therapy, administration of immunoglobulins
 - c) Transfusion with cryoprecipitate, chemotherapy
 - d) Radiation, transfusion with whole blood

Q15. Tympanometry is a:

- a) Test to help determine inner ear problems such as otosclerosis
- b) Subjective procedure to asses eardrum mobility
- c) Procedure to diagnose serous otitis
- d) Method used to assess Eustachian tube malfunction
- Q16. The respiratory problems that accompany peritonitis are as a result of:
 - a) Associated pain interfering with ventilation
 - b) Decreased pressure against the diaphraagm
 - c) Increased oxygen demaands from skeletal tissue
 - d) Fluid shifts to the thoracic cavity
- Q17. An anorexic client states that her stomach is "fat" and that all the food she is being forced to eat is making her obese. The nurse's best reply is:
 - a) "Your body is starting to work normally again and is getting stronger and healthier"
 - b) "You have a bloated stomach because there is too much salt in your food"
 - c) "No, it's not, you look much better now than when you were first admitted"
 - d) "May be we have been feeding you too much and you're gaining weight too fast"
- Q18. Skin changes in the elderly people leave them more susceptible to:
 - a) Heat stroke and heat exhaustion
 - b) Melasma and comedone formation
 - c) Hirsutism and heat retention
 - d) Seborrhea and scalp scaliness
- Q19. Match the objective client data in column A with the musculo-skeletal disorder they are primarily associated with in column B

COLUMN A

- a) Unsteady gait
- b) Flushed warm skin

COLUMN B

- 1. Osteoporosis
- 2. Osteomalacia
- 3. Pagets disease
- 4. Osteomyelitis
- 5. Osteosarcoma
- Q20. When teaching about proper use of antacids, the nurse should instruct the client to:
 - a) Stagger the administration of the antacids with other medications
 - b) Take the antacids with all other medications
 - c) Take other medications in the daytime and antacids at night
 - d) Drink a glass of water immediately after taking the antacids

Part II

- Q1. "Compartment syndrome is a medical emergency. Explain (4mrks)
- Q2. State four nursing diagnoses for a client with "urolithiasis" (4mrks)
- Q3. Describe the pathophysiology of osteomyelitis (5mrks)
- Q4. Explain three factors that determine the frequency and duration of hemodialysis sessions (6mrks)
- Q5. Explain three categories of non-surgical interventions other than dressing that promote wound healing (6mrks)
- Q6. The physician has ordered dopamine to be infused at 20ml/hr. The solution from pharmacy is 400mg of dopamine diluted in 500ml 5% D/W. Calculate the amount of drug to be delivered per hour in milligrams and in micrograms per minute (3mrks)
- Q7. A 70 years old man sustained 60% TBSA Burns injury when his house caught fire.He suffered inhalation burns as well while his beloved wife died in the inferno. Explain three factors that will affect the recovery of this client following hospitalization (8mrks)
- Q8. Draw and label a diagram illustrating parts of the ear (6mrks)

Part III

- Q1. Master X, 8 years old boy, has been admitted in the hospital with a diagnosis of nephritic syndrome.
- a) Outline five key features of this disorder (5mrks)
- b) Identify three priority nursing diagnoses for master X (3mrks)
- c) Formulate a nursing care plan for his management using the nursing diagnoses identified above (12mrks)
- Q2. Mrs. Kesho aged 60 years has been diagnosed with breast cancer stage II.
- a) Describe the TNM classification of tumours (6mrks)
- b) Explain the potential management of Mrs. Kesho (6mrks)
- c) Describe the complications associated with tumour therapy (8mrks)

JULY 2011-PAPER TWO

Part I

- Q1. Persistence of moro reflex beyond the age of 6months is usually suggestive of:
 - a) Immaturity
 - b) Brain damage
 - c) Mental retardation
 - d) Brachial plexus palsy
- Q2. Babies born with intrauterine growth retardation are usually prone to;
 - a) Congenital abnormalities, hyperglycemia
 - b) Neonatal hyperglcemia, asphyxia
 - c) Nenatal asphyxia, birth defects
 - d) Neonatal tetanus, asphyxia
- Q3. Mrs. Ug, presents in maternity ward with pulsating prolapsed umbilical cord. THe recommended nursing positio would be;
 - a) Knee-chest position, exaggerated Sim's position
 - b) Fowler's position, McRoberts manouvre position

- c) Sim's position, trendelenburg position
- d) Prone position, knee-chest position

Q4. Lochia serosa is composed of:

- a) Decidua, vernix, leucocytes
- b) Leucocytes, cervical mucous, decidua
- c) Cervical mucous, cholestrin crystals, lanugo
- d) Leucocytes, cervical mucous, erythrocytes

Rubra (bloody)- first few days postpartum. Contains blood, decidual and thromboplastic debris.

Serous/serosa (pink, brown)-3/4 days to 10 days postpartum. Contains serum, leukocytes, and tissue debris.

Alba (yellow, white)-10 days up to 6 weeks postpartum. Contains leukocytes, decidua, epithleal cells, mucus, serum, and bacteria.

Q5. During second stage of labour, the diameter that distends the vaginal orifice in face presentation is:

- a) Occipito frontal
- b) Submento-vertical
- c) Submento-bregmatic
- d) Mentovertical

Submento-vertical =11.5 cm

From the junction of the chin and neck to the vertex/vertical point.

- The engagement diameter in the incompletely extended face.
- The diameter that distends the vulva during face delivery.

Q6. The right time for diagnosing HIV infection using antibody tests among children born to HIV positive mother is at or after;

- a) 12 months of age
- b) 16 months off age
- c) 18 months of age
- d) 6 months of age

Children under 18 months have maternal HIV antibodies passively transferred to them in utero, which persist in infant blood for 9–18 months. In this age group a positive HIV serological test detects HIV antibody, however it is not possible to determine if this is maternally transferred antibody, or antibody generated by the infant. The positive antibody test before age 18 months therefore does not confirm HIV infection, but is an indication of maternal HIV infection and therefore HIV exposure of the child(MMS/NASCOP,2011).

- Q7. During management of severe eclampsia;
 - a) Anticonvulsant therapy should be given once daily
 - b) Ketamine is the drug of choice in performing a caesarean delivery
 - c) Nifedipine can be used to lower the blood pressure
 - d) Blood pressure should be monitored 6hourly

In case Hydralazine is not available, Nifedipine is the next drug of choice for controlling the BP.

N/B: Nifedipine, when used in conjunction with Magnesium sulphate, can cause a dangerous fall in *BP* hence the *BP* should be monitored carefully.

Q8. Benefits of breastfeeding to the infant include:

- a) Increased cognitive development, less chances of developing diabetes type 2, less risk of extreme obesity
- b) Lowered risk of infection, less likely to become overweight, protection against malignancies
- e) Strengthens bonding, protection against malignancies, decreased risk of cardiovascular diseases
- f) Reduced risk of metabolic syndrome, lowered risk of developing necrotizing enterocolitis, protection against diabetes type 1
- Q9. The common age of onset for gonoccocal opthalmia neonatorium is:
 - a) Between 21-28 days after birth
 - b) Between 0-7 days after birth
 - c) Between 7-14 days after birth
 - d) At 28 days of age
- Q10. Perinatal mortality refers to foetal and infants deaths including still births occurring from 28 weeks of gestation to within the first:
 - a) One week of life per 1000 live births
 - b) Two weeks of life per 1000 live births
 - c) Four weeks of life per 1000 live births
 - d) Six weeks of life per 1000 live births
- Q11. The normal acidity found in the vaginal fluid usually results from;
 - a) Acidic cervical secretions
 - b) Emission of acid from vaginal walls
 - c) Action of lactobacilli on vaginal glycogen
 - d) Consumption of acidic fruits and vegetables

There is increased production of lactic acid and hydrogen peroxide from the action of Lactobacillus acidophilus (Chamberlain, 2009). The lactobacilli lower the vaginal pH, which reduces colonization of the vagina by uropathogens and protects from urinary tract infections.

- Q12. The hormone responsible for relaxing the pelvic girdle, softening the cervix and suppressing uterine contractions towards the end of pregnancy is:
 - a) Oxytocin
 - b) Progesterone
 - c) Oestrogrn
 - d) Relaxin
- Q13. THe most common indication of a retained succenturate placenta lobe is:
 - a) A knot on thee insertion site of the umbilical cord
 - b) Centrally inserted umbilical cord into the placental membranes
 - c) A hole in the placental membranes with blood vessels running into it
 - d) Umbilical vessels running through the membranes throughout the placenta
- Q14. The anterior posterior fontanelles normally close y the age of:
 - a) 6weeks and 18 weeks respectively
 - b) 18 weeks and 6 weeks respectively
 - c) 18 months and 6 weeks respectively
 - d) 6 months and 18 months respectively
- Q15. The two layers that constitute the chorion during pregnancy are:
 - a) Flexion, external rotation, internal rotation and extension
 - b) External rotation, internal rotation, extension and flexion
 - c) Flexion, internal rotation, extension and external rotation
 - d) External rotation, extension, flexion and internal rotation
- Q17. When performing Leopold's maneuver, the purpose of the first maneuver is to determine:
 - a) Fetal part lying in the fundus and presentation
 - b) Location of fetal back and position
 - c) Engagement of the presenting part
 - d) The degree of flexion of fetal head
- Q18. The most important benefit of vestibular stimulation in the normal newborn is improvement of:
 - a) Sucking capability

- b) Tactile sensitivity
- c) Motor co-ordination
- d) Attention span

For question 19 & 20 indicate the answer whether the statements are TRUE or FALSE concerning tetralogy of fallot.

- Q19. a) There is obstruction of pulmonary outflow
 - b) The patient manifests with right ventricular hypertrophy and ventricular septal defect
- Q20. a) It is associated with a higher incidence of major non-heart congenital defects
 - b) Infants with this condition show obvious signs of cyanosis at birth

Part II

- Q1. Draw a well labeled diagram of the fetal circulation (6mrks)
- Q2. State three possible complications of early pregnancy (3mrks)
- Q3. Outline six nursing interventions for neonatal sepsis (6mrks)
- Q4. Explain the reason behind immunodeficiency among newborns under the following;
- a) Innate immunity (11/2mrks)
- b) Acquired immunity (1 1/2 mrks)
- Q5. Outline five indicators of bishop's score (5mrks)
- Q6. Explain four events that precipitate disseminated intravascular coagulation (6mrks)
- Q7. Explain how Apgar Score is used to assess the condition of a newborn (6mrks)
- Q8. Describe the pathophysiology of pre-eclampsia (5mrks)

Part III

- Q1. Baby Soo was born at home 3days ago. He has just been admitted to the newborn unit with history of neonatal seizures
- a) Define neonatal seizures (1mrk)
- b) State five causes of neonatal seizures (5mrks)
- c) Describe the specific immediate and subsequent management of baby Soo until discharge (14mrks)

- Q2. Mrs. Dy has been brought to casualty department as referral from a lower level health facility with a diagnosis of ruptured uterus
- a) Define ruptured uterus (1mrk)
- b) State five causes of uterine rupture (5mrks)
- c) Describe the specific management of Mrs Dy until discharge (14mrks)

JULY 2011 PAPER III

Part I

- Q1. Activities categorized as secondary disease prevention include:
 - a) Blood pressure screening, guarding against accidents, actual treatment of disease
 - b) Chemoprophylaxis, annual pap smear test, supply of safe drinking water
 - c) Routine mammography, blood pressure screening, annual pap smear test
 - d) Periodic determination of blood cholesterol, supply of safe drinking water
- Q2. The occupational disease that would occur in workers employed in a sugar cane factory is:
 - a) Agranulocytosis
 - b) Bagassossis
 - c) Byssinosis
 - d) Siderosis
- Q3. An abiotic environment that can affect health of the community is:
 - a) Infective organisms
 - b) Insects
 - c) Vegetation
 - d) Chemicals
- Q4. The measurement rate that is used to determine the number of new cases of a disease over an interval of time is:
 - a) Incidence rate
 - b) Prevalence rate
 - c) Case fatality rate
 - d) Endemicities
- Q5. The term used to describe malaria endemicity patterns where transmission occurs all the year round is:-

- a) Holoendemic
- b) Hypoendemic
- c) Hyperendemic
- d) Mesoendemic

Q6. The fungal skin infection characterized by thickening and discoloration of the nails is called:-

- a) Tinea versicolor
- b) Tinea pedis
- c) Intertrigo
- d) Tinea ungium

Q7. The infection of the genital tract where the discharge has a fishy or ammonia odour is:-

- a) Syphilis
- b) Gonorrhoea
- c) Trichomoniasis
- d) Candidiasis

Q8. A zoonotic disease that is caused by a spore forming bacillus is:-

- a) Brucellosis
- b) Rabies
- c) Anthrax
- d) Plague

Q9. A research instrument that is able to give same measurements when recreated several times is said to be:-

- a) Predictable
- b) Precise
- c) Valid
- d) Reliable

Q10. The statistical measurement that takes into account all scores obtained and responded to the exact position of every score relative to the mean of that distribution is the:-

- a) Standard deviation
- b) Interquartile range
- c) Mode
- d) Median

- Q11. The hypothesis that rivals the null hypothesis is referred to as:
 - a) Directional hypothesis
 - b) Subjective hypothesis
 - c) Statistical Inference
 - d) Alternative hypothesis
- Q12. Family descent where the membership is acquired through the male line is:
 - a) Matrilineal
 - b) Patrilineal
 - c) Matrilocal
 - d) Patrilocal
- Q13. The home visiting phase where the nurse designs a plan of action for the family is:
 - a) Pre-visit phase
 - b) Initiation phase
 - c) Working phase
 - d) Termination phase
- Q14. Biphasic pills include:
 - a) Logynon, Trinordial
 - b) Microgynon, Lo-femenal
 - c) Ovanon, Normovlar
 - d) Nordette, Marvelon

Biphasic pills are forms of COC pills containing two different dose combinations of oestrogen and progestin usually in packets of 21 or 28 tablet e.g. in 21 active pills, 10 may contain one combination, while 11 contain another. Examples include Biphasil, Ovanon, and Normovlar (DRH, 2010).

- Q15. Following vasectomy procedure, the client should be advised to use condoms or another family planning method for a duration of:
 - a) 1 month
 - b) 2 months
 - c) 3 months
 - d) 4 months

A vasectomy does not become effective immediately. The client should be instructed to use condoms or another FP method for three months after the operation to be completely safe (DRH, 2010). This is the approximate time it takes for all sperms in the distal ductus deferens, to be reabsorbed or ejaculated.

Q16. The age at which a child is likely to conceptualize abstract ideas is:-

- a) 6 years
- b) 8 years
- c) 10 years
- d) 12 years

Abstract, mature thought and formal reasoning comes at 12 ears and above; the Formal Operational (4th) stage of Jean Piaget's stages of cognitive development. The child can solve hypothetical problem with scientific reasoning and can deal with past, present and future (Maxion, 2006).

Q17. Water-washed diseases include:-

- a) Typhoid, poliomyelitis
- b) Scabies, Trachoma
- c) Amoebiasis, cholera
- d) Malaria, schistosomiasis

Water-washed (water scarce) diseases are diseases whose spread is promoted by lack of adequate water. They may be prevented if people have adequate supply of water. Typical examples include dysentery (shigellosis), scabies, trachoma, yaws and conjunctivitis.

Water-borne diseases are caused by water contaminated specific disease-causing organisms and can only be prevented by improving the quality/cleanliness of the water e.g. typhoid, cholera, amoebiasis, hepatitis A, or poliomyelitis.

Water-related diseases are those that occur when water contributes to their spread when it is necessary in the life cycle of a disease vector e.g. Malaria, schitosomomiasis, onchocerciasis (river blindness) and dracunculosis (guinea worm).

Q18. In health education, the principle that best addressed the felt needs of the people is:-

- a) Interest
- b) Motivation
- c) Re-enforcement
- d) Active learning

Q19. Some of the health issues classified under the high priority health package in Kenya are:-

- a) Reproductive cancers, skin diseases
- b) Accidents, drug and substance abuse
- c) Reproductive health, malaria prevention
- d) Mental health, control of vector-borne diseases

Q20. Increasing the ability of the population to cope with a disaster is known as:-

- a) Preparedness
- b) Triaging

- c) Mobilization
- d) Mitigation

Part II

Q1. Explain the normal reaction at the injection site following administration of BCG vaccine (5mrks)

In Kenya the BCG vaccine is given on the anterior – lateral aspect of the upper one third of the left forearm. During the intradermal injection one should raise a weal of about 6mm - 10mm in diameter. This usually disappears within 30 minutes.

After about two weeks a red sore forms. The sore remains for another two weeks and then heals. A small scar, about 5 mm across, remains. This is a sign that the child has been effectively immunized

Q2. Explain three anthropometric measurements used to monitor growth of children under five years of age (6mrks).

Anthropometry is the measurement of physical dimen-sions, especially for monitoring growth and metabolism.

Anthropometric measures for under fives may include: weight, height and skinfold thickness.

- Q3. Outline eight factors to be considered in the planning and dissemination of group health education messages (8mrks)
- Q4. State four goals focused antenatal care (4mrks)
 - Preparation for labour and delivery
 - Prevention and treatment of pregnancy complications
 - Provision of nutritional, social, emotional and physical health
 - Patient education
 - Prevention and treatment of disorders or diseases
- Q5. State eight principles of community health nursing practice (8mrks)
 - Community health nursing services should be available to all, according to their health needs.
 - Community health nursing programmes must have clearly defined objectives and purposes.
 - Community health nursing should involve the community through all processes/stages
 - The service should build the capacity of the community to run their own health programme for the purpose of sustainability.
 - Health education and counselling for the individual, family and community are integral parts.
 - Services should be based on the identified needs and be with continuity.
 - Should work within the community's culture and norms without compromising professionalism.

- Community health nursing should not be a vertical programme. A community health nurse must work with other stakeholders in the development, implementation, monitoring and evaluation of the community health programme.
- Community health nursing is a service should not demand favours, gifts or bribes from clients.
- Should involve active participation in continuing professional development so as to keep abreast with new developments.
- Services should develop proper guidelines and maintain proper records and reports.

Q6. Explain five sources of demographic information (5mrks)

- Civil registration e.g registration of persons
- Epidemiological studies
- Population census Special community surveys
- Hospital and health centre records
- Q7. State the criteria used to determine that a child is fully immunized (4mrks)

Part III

- Q1. Mr. Kuzi, aged 37yrs, has been diagnosed with multi-drug resistant tuberculosis.
 - a) Define Multi-drug Resistant tuberculosis (1mrk)
 - b) Outline five important risk factors of MDR-TB (5mrks)
 - c) Describe the management of Mr. Kuzi (14mrks)
- Q2. Describe the Kenya National Immunization schedule and its implementation (20mrks)

JULY 2011-PAPER FOUR

Part I

- Q1. The primary goal of hypnotizing a patient is to:
- a) Increase the patients' suggestibility without understanding their nature
- b) Induce muscular relaxation in a prefixed and systematic order
- c) Provide immediate feedback to the individual regarding his/her physiological activities
- d) Correct maladaptive methods of thinking by teaching new coping skills
- Q2. Indicate whether the following statements are TRUE or FALSE on the answers sheet provided

- a) Electroconvulsive therapy (ECT) is a treatment that uses an electrical current to cause a brief seizure of the central nervous system while the patient is not under anaesthesia
- b) People with bipolar disorder are more likely to have manic episodes if they are put on antidepressants
- Q3. The age o onset of attention deficit disorder is between:
- a) 4-7 years
- b) 10- 18 years
- c) 2-4 years
- d) Above 8 years
- Q4.Drugs used in management of depression include:
- a) Haloperidol, mirtazapine, trazodone
- b) Risperidone, venflaxine, citalopram
- c) Thioridazine, doxepine, venflaxine
- d) Doxepine, imipramine, amitryptyline
- Q5. Cognitive domain of learning is concerned with:
- a) Decision making, application of principles, concepts
- b) Manipulative skills, operation of equipments, concepts
- c) Maintenance of discipline, readiness to work, principles of work
- d) Values, understanding and principles
- Q6. The mode of evaluation in which objectives of the course are set and the learner's performance compared with the target is;
- a) Norm referenced evaluation
- b) Criterion referenced evaluation
- c) Qualitative referenced evaluation
- d) Cumulative referenced evaluation
- Q7. The functionist theory of stratification by Marx Weber rests on the assumption that:
- a) All positions in the society are equal

- b) Social phenomena exist because they have a positive function to perform in the society
- c) Society members will take up the position to serve irrespective of the material reward
- d) Profit is distributed equally in the society
- Q8. A mission statement:
- a) Reflects the purpose and direction of the health care agency
- b) Develops, negotiates and formalizes the targets of a health care agency
- c) Identifies goals that are specific and adhere to a deadline of the health care agency
- d) Is used to develop educational programs for health care professionals
- Q9. An organizational structure designed to focus on both product and function is:
- a) Flat
- b) Matrix
- c) Bureaucracy
- d) Hybrid
- Q10. A client with schizophrenia had just been admitted to the mental health unit. When working with this client the nurse's initial most therapeutic action would be to:
- a) Use diversional activity and involve the client in occupational therapy
- b) Build trust and demonstrate acceptance by spending some time with the client
- c) Involve the client in multiple small group discussion to distract attention from the fantasy world
- d) Delay one to one interaction until medication reduces the psychotic symptoms
- Q11. Separation anxiety in Freud's psychosexual stages of development initially occurs during the:
- a) Oral stage
- b) Anal stage
- c) Phallic stage
- d) Latency stage

- Q12. When caring for the extremely depressed clients, specific goals towards helpig the client include:
- a) Set realistic goals
- b) Express hostile feelings
- c) Get involved in activities
- d) Develop trust in others
- Q13. Individuals with antisocial personality disorder:
- a) Suffer from a great deal of anxiety
- b) Are generally unable to postpone gratification
- c) Rapidly learn by experience and punishment
- d) Have a great sense of responsibility towards others
- Q14. In decentralized scheduling:
- a) The nurse manager develops the schedule in isolation from all other units
- b) Each staff does self scheduling then the unit manager balances the schedule depending on the need
- c) The organization's general manager does the scheduling
- d) The organization sets up a staff scheduling committee
- Q15. The basic elements of supervision include:
- a) Regulating workload, providing opportunity to discuss stressful work issues, providing feedback to staff on their performance
- b) Building and maintaining an organization structure, creating and maintaining an effective working force, controlling the work
- c) Maximizing the economy, creating and maintaining effective work force, developing and maintaining motivation
- d) Examining the list of duties given, maintaining social responsibility, negotiating pay hikes
- Q16. Performance appraisal is essential as it:
- a) Assesses the performance of the industry toward achieving it's goals

- b) Gives the employees a clear indication of progress and performance
- c) Obtains useful feedback for the consumer
- d) Assesses the results of training among the colleagues
- Q17. Random selection of subjects for a study is used to:
- a) Maximize the generalizability of results
- b) Reduce random measurement error
- c) Control assignment error
- d) Minimize Hawthorne effect
- Q18. Literature review in research is useful for;
- a) Familiarization with practical or theoretical issues relating to a problem
- b) Ensuring that the research superior is well informed
- c) Controlling extraneous variables during experimentation
- d) Testing for appropriate causal relationship
- Q19. The application of operant conditioning in nursing education may be achieved b:
- a) Stating the objective of a teaching session
- b) Using punishment to extinct negative behaviour
- c) Rewarding positive behavour
- d) Stimulus variation in classroom teaching
- Q20. The gender of subjects in a research is an example of:
- a) A ratio scale
- b) A nominal scale
- c) An ordinal scale
- d) An interval scale

Part II

Q1

a) Outline the four (4) Eugen Bleurer fundamental symptoms of schizopphrenia

- Inappropriate or flattened affect
- Social withdrawal
- Ambivalence- conflicting emotions towards others
- Loosening of associations and flight of ideas
- c) State four (4) four factors that may increase the risk of developing catatonic schizophrenia.
- Stressful Life Events e.g., a stressful family situation
- Poor social conditions associated with living in poverty/ with few resoursces
- Viral Infections of the CNS
- Physical injuries like birth trauma or head injury
- Q2 Outline five (5) types of non-probability sampling in research.
- Q3 Differentiate between formative and summative evaluative
- Q4 Explain the first three stages of psychosocial development according to Erikson's theory in correct sequence.
 - i. Trust vs. Mistrust (0 18 months)
 - Theme: Give and Receive
 - Trust is the foundation of all psychosocial tasks
 - Trust is developed via
 - o Satisfying needs of infants on time
 - o Care that is consistent and adequate
 - o Giving experiences that will add security e.g. touch, eye to eye contact.
 - ii. Autonomy vs. Shame & Doubt (18 mo. to 3 years)
 - Theme: independence and self government
 - Give opportunity for decision making, offer choices
 - Encourage the child to make decision rather than judge
- iii. **Initiative vs. Guilt** (4 6 years)
 - Learns how to do basic things
 - Give opportunity exploring new places and events
 - Activity recommended should enhance creativity and imagination and facilitates fine motor development
- iv. Industry vs. Inferiority (7 12 years)
 - Learns how to do things well
 - Give appropriate short assignments and projects
 - Unfinished project will develop inferiority
- v. **Identity vs. Role Confusion** (12 18 or 20 years)
 - Learns who he is or what kind of person he will become by adjusting to new body image and seeking freedom from parents
- vi. Intimacy vs. Isolation (18 25 or 30 years)
 - Career focus
 - Search for a lifetime partner
- vii. **Generativity vs. Stagnation** (30 45 years)

- viii. **Ego Integrity vs. Despair** (45 years and above)
- Q5 a) Explain rating scale used in questionnaires.
 - b) Differentiate between contingency questions and matrix questions
- Q6 Explain the following ethical terms used in research
- a) Plagiarism
- b) Fraud
- c) Misuse of privileges
- Q7 State four (4) manifestations of somatization disorder

Part III

- Q1. You have been appointed the regional director in a non-governmental organization to manage malaria control project
- a) Outline five (5) key principle of quality management.
- b) Describe the phases of strategic planning process
- Q2. You have been assigned to teach certain course to undergraduate nursing students
- a) Outline five (5)) principles of teaching
- b) Describe five (5) factors that influence learning in a classroom setting.

JANUARY 2012 PAPER THREE

Part I: Multiple Choice Questions

- 1. In epidemiology a risk factor is defined as one that:
 - a. If present increases susceptibility to a disease.
 - b. Causes the disease.
 - c. Determines that one actually gets a disease.
 - d. If changed will increase the severity of the disease.

- 2. The coordinator of primary health care in a district is:
 - a. District health management team.
 - b. District medical officer of health.
 - c. District public health officer.
 - d. District public health nurse.
- 3. The responsibilities of a client during home based care include:
 - a. Passive participation in care process, giving consent to care providers, collaborating with other care providers.
 - b. Giving consent to the care giver, collaborating with other clients, advocating in behavior change.
 - c. Identifying care givers, actively participating in care process, giving consent to the care givers.
 - d. Mobilizing maternal support, giving consent to the care giver, participating in care process.

4. Herd immunity:-

- a. Plays a major role in control of communicable disease.
- b. Confers protection when a large population is immunized.
- c. Protects only the population that is immunized.
- d. Is only acquired when a large population suffers from the disease.
- 5. Community health action is defined as the process of:
 - a. Gathering information on the health problems affecting the community.
 - b. Analyzing the community's health problem in order to plan for intervention.
 - c. Providing health services to the community based on the identified problems.
 - d. Identifying the health facilities available within the community.
- 6. Comprehensive health and safety risk assessment in work place involves:
 - a. Assessing risks, identifying hazards, applying controls and reviewing effects.
 - b. Identifying hazards, documenting the risks, post exposure prophylaxis.

- c. Avoiding hazards, removing pollutants, ensuring proper lighting.
- d. Identifying hazards in environment, work place policy implementation.
- 7. To calculate the case fatality, one needs to divide the:
 - a. Number of deaths midyear by number of persons with disease.
 - b. Number of deaths from a specified disease by number of persons with the disease.
 - c. Number of deaths from a specified population by number of persons with the disease.
 - d. Number of deaths from any cause in the population by number of persons who died from the disease.
- 8. Social change occurs through:
 - a. Revolution, ethnocentrism, assimilation.
 - b. Discovery, assimilation, devolution.
 - c. Socialization, evolution, devolution.
 - d. Revolution, reforms, enculturation.
- 9. The sequence of growth monitoring in an MCH/FP clinic is:
 - a. Counseling, weighing, plotting, interpretation.
 - b. Interpretation, counseling, weighing, plotting.
 - c. Weighing, plotting, interpretation, counseling.
 - d. Counseling, weighing, plotting, interpretation.
- 10. The bottom up approach in design and management of community health projects ensures:
 - a. Donor agents make development decisions for the community.
 - b. Government and donors support community projects.
 - c. Sustainability of projects initiated in the community.
 - d. Government supervision of the community projects.
- 11. The characteristics of a rural community include:
 - a. Limited kinship ties, main occupation is agriculture.

- b. Limited social exchange, emphasis is on ascribed status.
- c. Strong kinship ties, emphasis on ascribed status.
- d. Strong relationship among family members, social change is important.
- 12. Indicate whether the statements are true or false:
 - a. Monophasic combined oral contraceptives have equal amounts of estrogen and progesterone.
 - b. Progesterone hormone causes the basal body temperature to rise.
- 13.A population pyramid with a broad base and a narrow apex indicates:
 - a. High birth rate.
 - b. High mortality rate.
 - c. Low mortality rate.
 - d. Low dependence ratio.
- 14. The component of healthful school living involves:
 - a. Health assessment, accident prevention, health education.
 - b. Identification of children at risk, accident prevention, health education.
 - c. Classroom assessment, encourage teacher's support, counseling of students.
 - d. Identification of children at risk, health education, classroom assessment.
- 15. According to Erikson's theory of psychosocial development, the state of identity versus role of confusion occurs between ages:
 - a. 6-11 years
 - b. 12-18 years
 - c. 18-22 years
 - d. 22-24 years
- 16. The evaluation done to assess programme outcome is referred to as:
 - a. Strategic.
 - b. Process.

- c. Formative. d. Impact. 17. The phase of home visiting where the health worker credits achievement and leaves a written identification of self is:a. Implementation. b. Termination. c. Initiation. d. Post visit. 18. The purpose of a research hypothesis is to:a. Postulate an outcome of research based upon inductive reasoning. b. Assign numerical values to variable. c. Accurately state expected relationship between the variables. d. Design the overall plan with which the research will be conducted. 19. Water washed disease include:a. Malaria, schistosomiasis, trachoma.
- - b. Scabies, trachoma, diarrhea.
 - c. Malaria, onchocerciasis, typhoid.
 - d. Cholera, schistosomiasis, scabies.
- 20. Match the terms in column A with the correct definition in column B regarding the health belief model.

COLUMN A:

- a. Quest to action
- b. Self efficacy.

COLUMN B:

- 1. A person believes their life is in jeopardy.
- 2. The belief in being able to execute the desired action.

- 3. The person's belief in the benefit of recommended behavior.
- 4. Precipitating force that makes a person feel need to change.

Part II Short Answer Questions

- 1. State five factors that are associated with spread of sexually transimitted infections.5
- 2. Outline three ways by which each of the following demographic factors influence health status of a person.
 - i) Age (3mks)
 - ii) Gender (3mks)
- 3. Describe the process of establishing a diagnosis of yellow fever. (5mks)
- 4. Outline five roles of a family in disease prevention. (5mks)
- 5. State four factors that make school going children be considered a vulnerable group (4mks)
- 6. Outline five health messages you would share with a mother after administration of BCG vaccine. (5mks)
- 7. Explain the natural history of disease(6mks)
- 8. State four factors that are considered while installing a KEPI refrigerator in MCH/FP clinic (4mks)

Part III Essay Questions

- 1. While compiling the immunization report for your district, you notice that the coverage has dropped in two divisions.
 - a. State five factors that have led to low immunization coverage in these divisions.5
 - b. Describe how you would address this problem of low immunization coverage in the two divisions (15mks).
- 2. An outbreak of meningococcal meningitis has been reported in a district where you are working as a district community health nurse.
 - a. List two characteristics of this microorganism.1
 - b. Describe the pathophysiology of bacterial meningitis infection.5
 - c. Describe how you will manage and control this outbreak.14

JANUARY 2013 PAPER THREE

Part I

- 1. The term that best describes of a group to invasion and spread of an infectious agent is:
 - a. Individual immunity
 - b. Natural active immunity
 - c. Herd immunity
 - d. Artificial active immunity
- 2. The frequency of a phenomenon during a given time and which deals with both new and old cases is:
 - a. Cause specific rate
 - b. Prevalence rate
 - c. Crude case rate
 - d. incidence rate
- 3. Demographic data describes:
 - a. Characteristics and distribution of people in a given area and the changes in the population over time.
 - b. Any data that delineate health or health related events.
 - c. Adoption, annulment patterns of the population.
 - d. The extent and distribution of illness in a community.
- 4. Emergency contraceptives are effective if taken within:
 - a. 48 hours
 - b. 72 hours
 - c. 5 days
 - d. 7 days
- 5. According to Erickson's psychosocial development tasks, industry v/s inferiority occurs at:-

- a. 3-6 years
- b. 19-25 years
- c. 5-12 years
- d. 13-19 years

Industry vs. Inferiority occurs at 6-12 years (school-age). The major task is to achieve a sense of self-confidence by learning, competing, performing successfully, and receiving recognition from others (Townsend, 2008).

Achievement of the task results in a sense of satisfaction and pleasure in the interaction with others. Nonachievement results in inferiority and difficulty in interpersonal relationships (Townsend, 2008).

- 6. Cross sectional surveys give:
 - a. Prevalence information
 - b. Incidence information
 - c. Longitudinal data.
 - d. Case study.
- 7. Principles of primary health care include:
 - a. Intersectorial action, decentralization, community participation.
 - b. Intersectorial action, intergration of health programmes, education concerning prevailing health problems.
 - c. Maternal child health care and family planning, immunization, proper nutrition.
 - d. Community participation, safe water supply.
- 8. The correct sequence of community diagnosis process is:
 - a. Planning the survey, community inventory, developing and pre testing survey tools, execution of the survey, data analysis, report writing, dissemination and community action.
 - b. Community inventory, planning the survey, developing and pre testing survey tools, execution of the survey, data analysis, report writing, dissemination and community action.
 - c. Developing and pre testing survey tools, planning the survey, execution of the survey, data analysis, report writing, dissemination and community action.

- d. Community inventory, developing and pre testing survey tools, planning the survey, execution of the survey, data analysis, report writing, dissemination and community action.
- 9. The non-probability sampling methods include:
 - a. Cluster sampling, quota sampling and systematic sampling.
 - b. Convenience sampling technique, cluster sampling and quota sampling.
 - c. Simple random sampling, systematic sampling and cluster sampling.
 - d. Convenience sampling, quota sampling, purposive sampling.
- 10. The child understands a few words and tries to use them at:
 - a. 9-12 months
 - b. 6-9 months
 - c. 12-18 months
 - d. 3-6 months
- 11. Tooth eruption in children is likely to occur at:
 - a. 6 weeks of age
 - b. 24 weeks of age
 - c. 48 weeks of age
 - d. 36 weeks of age
- 12. Specific pharmacological management of ophthalmia neonatorum according to NASCOP flow chart of ophthalmia neonatorum includes:
 - a. Procaine penicillin 300,000 IU IM and 1% tetracycline eye ointment TDS X 10 days.
 - b. Streptomycin 1% eye ointment, procaine penicillin 300,000 IU IM
 - c. Septrin 5 mg stat, 1% eye ointment tetracycline.
 - d. Procaine penicillin 300,000 IU IM and streptomycin 1% eye ointment.
- 13. 'Pulse' saturation vaccination implies:-

- a. A method used when static MCH services are too far away for mothers to bring their infants for immunization.
- b. A routine immunization schedule.
- c. Coverage of susceptible population with immunization.
- d. Few susceptible due to increased immunization.

14. Gross reproductive rate is:-

- a. Number of live births per 1000 workers in specific age group.
- b. Total number of children born to a woman.
- c. Average number of girls born to a woman with current fertility pattern.
- d. Number of daughters a new born girl will bear during her life time.

15. Stable litter contains mainly:-

- a. Animal droppings and left over animal feeds.
- b. Large proportions of purtriscible vegetables and broken glasses.
- c. Rubbish and garbage from households.
- d. Iron pieces, dead animals, animal droppings.
- 16. The permanent hardness of water can be removed by:
 - a. Boiling
 - b. Addition of lime
 - c. Addition of sodium bicarbonate
 - d. Chlorination

17. In epidemiology chi-square (x^2) is :-

- a. An attempt to establish relationship between two categorical variables.
- b. A type of analysis to find out whether an independent variable predicts a given dependent variables,
- c. A technique that deals with one independent and one dependent variable.
- d. An attempt to determine whether a group of variables together predicts a given dependent variable.

- 18. The situation where subjects' awareness of being in an experimental group motivates them to perform better is known as:
 - a. The John Henry effect.
 - b. Placebo effect.
 - c. The Hawthorne effect.
 - d. The halo effect.
- 19. Match the diseases in column A with causative organism in column B.

COLUMN A

- a. Ochoceriasis
- b. Louse-borne relapsing fever.

COLUMN B

- 1. Simulium damnasum
- 2. Wucheria bancrofti
- 3. Pediculus corporis
- 4. Orinthodorus moubata
- 5. Borrelia duttoni
- 20. Indicate whether the statements are true or false.
 - a. Refrigeration preserves food by killing all bacteria.
 - b. The yellow fever immunization certificate for international travelers remains valid for ten years.

Part II Short Answer Questions

- 1. State five barriers to disease control programs in the community. (5mks)
- 2. Outline four factors to consider when assessing ways a family obtains and gives emotional support.4mks)
- 3. State four administration and management functions of the occupational health nurse.4
- 4. Outline six specific functions of the school health services.6
- 5. Explain two typical roles of adults in the family.4

- 6. Outline seven principles of community health nursing.7
- 7. State five principles of home based care.5
- 8. State five advantages of nursing process in community health.5

Part III Essay Questions

- 1. Family planning, an element of primary health care, is key in improving the health of women, men and children.
 - a. State four factors contributing to the gap between access to and use of family planning services (4mks).
 - b. Giving appropriate examples, explain the three types of low dose pills (6mks)
 - c. Describe factors that can influence acceptance and continuation of family planning.
- 2. You are the community health nurses in charge of a district where yellow fever has been identified.
 - a. Explain the pathophysiology of yellow fever. (4mks)
 - b. State three clinical manifestations of yellow fever (3mks).
 - c. Describe the management, prevention and control measures of this disease.(13mks)

References for further reading:

Adler et. al., (2004). ABC of Sexually Transmitted Infections, 5Th Ed.. BMJ Publishing Group Ltd: London