Youth Competition Times

National Education Society for Tribal Students
Staff Selection Exam

EMRS

Female Staff Nurse

(TIER-II)

(Objective and Descriptive Questions)

Practice Book

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PRACTICE SET

SYLLABUS

Tier-II- Female Staff Nurse

- Nursing Foundation
- Medicals Surgical Nursing (including Pathology and Pharmacology)
- Pediatric Nursing
- Mental Health Nursing
- Obstetric and Gynecological Nursing
- Community health Nursing
- Anatomy
- Physiology
- Psychology
- Sociology
- Nutrition and Dietetics
- Microbiology
- Biochemistry
- First Aid

EMRS-FEMALE STAFF NURSE (MAINS)

Subject Knowledge (Descriptive & Objective Questions)

PRACTICE SET-1

1. Absence of bowel sounds and abdominal distention after abdominal surgery indicates?
(a) Hemorrhage (b) Intussusception
(c) Paralytic ileus (d) Flatulence

2. When the amount of amniotic fluid exceeds two liters the condition is called:
(a) Oligohydramnios (b) Polyhydramnios
(c) Bag of waters (d) Amnionitis

3. In identical twin, where the fetuses share common chorion, the number of placenta is?
(a) One (b) Two
(c) More than two (d) Two and fused

4. Sports person enhance mental and physical capabilities by taking?
(a) Anabolic steroids (b) Caffeine
(c) Whisky (d) High caloric food

5. Fifth disease is also known as?
(a) Mumps (b) Erythema Infectiosum
(c) Measles (d) Rubella

6. World Mental Health day is observed on?
(a) July 11 (b) October 10
(c) April 7 (d) June 5

7. A normal human cell has ..... chromosomes.
(a) 23 (b) 46
(c) 24 (d) 48

8. All of the following are preventable hospital acquired infections except?
(a) Ventilator associated pneumonia
(b) Catheter associated urinary tract infection
(c) Cannula associated thrombophlebitis
(d) Drug associated toxicity

9. Out of the following, which is not a major intracellular electrolyte?
(a) Sodium (b) Potassium
(c) Magnesium (d) Phosphorous/Phosphate

10. Nursing medication errors most commonly observed in hospital are?
(a) Errors related to wrong dosage and infusion rate
(b) Errors related to wrong identification of patient
(c) Errors related to wrong route of drug administration
(d) Errors related to wrong drug being administered

11. Which term is used to denote normal heart rate in a patient?
(a) Tachycardia (b) Sinus rhythm
(c) Bradycardia (d) Asystole

12. Station in OG is related to
(a) Ischial spine (b) Iliac spine
(c) Coccyx (d) Cervix

13. In which year was the Declaration of the Rights of the Child adopted by the United Nations?
(a) 1959 (b) 1979
(c) 1947 (d) 1963

14. While preparing a pregnant woman for amniocentesis, the nurse should.
(a) prepare her for IV anesthesia
(b) instruct her to drink 1L of water
(c) instruct her to void
(d) place her in left lateral position

15. Switching from mother's breast milk to normal feeding in child is called?
(a) Trail feeding (b) Weaning
(c) Replacement feeding (d) Substitution

16. The highest level of learning
(a) Concept Learning (b) Chaining
(c) Problem Solving (d) Verbal Association

17. Placenta secretes all the following hormones, EXCEPT :
(a) Progesterone
(b) Human chorionic gonadotropin
(c) Luteinising hormone
(d) Oestrogen

18. Major approaches in problem solving are :
(a) Inductive, deductive, active, analytic
(b) Inductive, deductive, purposive, synthetic
(c) Inductive, deductive, initiative, synthetic
(d) Inductive, deductive, analytic, synthetic

19. What is Andragogy?
(a) Child education
(b) Adult education
(c) Computer assisted learning
(d) Problem based learning

20. The components of self concept is the following except
(a) Self esteem (b) Body image
(c) Role (d) Behavior

21. In which year was India declared a smallpox-free country by an International Commission for Assessment of Smallpox Eradication?
(a) 1977 (b) 1974
(c) 1976 (d) 1975

22. Which type of family comes under the male head of the family possessing all powers?
(a) Nuclear family (b) Matriarchal family
(c) Joint family (d) Patriarchal family

23. Sunken fontanelle is sign of :
(a) Turners syndrome (b) Hydrocephalus
(c) Down's syndrome (d) Dehydration

24. Family functioning involves
(a) The process used by the family to achieve goals
(b) The patterns of people who are considered to be family members
(c) The ongoing membership of the family
(d) The patterns of relationships

25. What is value clarification ?
(a) Process of identifying, examining and developing one's own individual values
(b) Process of explaining/describing values of a person
(c) Process of identifying and developing social values
(d) Process of identifying and examining the values of other individuals

26. False about sociology is:
(a) deals with study of society
(b) deals with study of social interactions
(c) deals with study of social interactions and social organizations
(d) deals with study of social organizations
(e) deals with the study of human mind

27. The term cultural lag was coined by :
(a) Karl Max (b) William Ogburn
(c) Max Weber (d) Emile Durkeim

28. In which type of marriage the paring of male and female is temporary and not bounded by rules and regulation ?
(a) Syndesmian (b) Civil
(c) Punaluwan (d) Walking

29. What is a group of people living in the same area called who are considered as a unit or having a particular characteristics in common?
(a) Community (b) Experimental group
(c) Control group (d) Self help group

30. Mouth to mouth respiration provides what percentage of Oxygen?
(a) 10 (b) 16
(c) 21 (d) 100

31. A group of diseases characterized by abnormal growth of cells, capable of invading the adjacent tissues and even distant organs is called :
(a) Hypertension
(b) Cancer
(c) Coronary artery disease
(d) Diabetes mellitus

32. Which condition is presented by the presence of strawberry tongue ?
(a) Celiac disease (b) Glossitis
(c) Kawasaki disease
(d) Maple syrup urine disease

33. A nurse is caring for a patient who has undergone a tracheostomy. Identify an early complication of tracheostomy.
(a) Air embolism
(b) Tracheoesophageal fistula
(c) Dysphagia
(d) Tracheal necrosis

34. A nurse is assessing a female patient in post partum period with her uterus is soft, and shifted towards right side, fundus 2 fingers above umbilicus.
Which of the following is the possible cause of this condition?
(a) Normal (b) Involution
(c) Bladder distension (d) Infection

35. Inner to outer following in a baby. Identify the following skin disease?

(a) Scabies (b) Impetigo
(c) Atopic dermatitis (d) Rashes

36. In emergency department, during CPR of neonate, on duty nurse unable to access venous site then what is the priority action for next?
(a) plan for central line
(b) Direct insert in artery
(c) Direct injection in intra osseous of tibia
(d) Cut the part and direct inject

37. Correct sequence for assessment of breasts cancer?
(a) Clinical evaluation, Mammogram, Tissue biopsy
(b) USG, Mammogram, Tissue biopsy
(c) Skin assessment, Mammogram, History, Tissue Biopsy
(d) history, Tissue biopsy, Clinical examination

38. In a patient a cotton swab left inside the abdominal cavity after surgery. It is termed as?
(a) Textiloma (b) Gauzema
(c) Gossypiboma (d) All of the above

39. A client with history of chronic hypertension & edema admitted in ICU since 15 days, is getting loop diuretics from 10 days. During the rounds unit head doctor ask to his/her juniors that which electrolyte imbalance occurs if loop diuretics taken long time, then junior doctor's response will?
(a) Hypernatremia (b) Hyponatremia
(c) Hypokalaemia (d) Hyperkalaemia

40. Rigor Mortis is the sign after death. It occurs due to
(a) Blood circulation has cease
(b) Stiffening of body
(c) Gradual decrease into the body's temperature
(d) Hydrolysis of the tissues

SOLUTION : PRACTICE SET-1

ANSWER KEY

1. (c)	**5. (b)**	**9. (a)**	**13. (a)**	**17. (c)**	**21. (a)**	**25. (a)**	**29. (a)**	**33. (a)**	**37. (a)**
2. (b)	**6. (b)**	**10. (a)**	**14. (c)**	**18. (d)**	**22. (d)**	**26. (e)**	**30. (b)**	**34. (c)**	**38. (d)**
3. (a)	**7. (b)**	**11. (b)**	**15. (b)**	**19. (b)**	**23. (d)**	**27. (b)**	**31. (b)**	**35. (b)**	**39. (b)**
4. (a)	**8. (d)**	**12. (a)**	**16. (c)**	**20. (d)**	**24. (a)**	**28. (a)**	**32. (c)**	**36. (c)**	**40. (b)**

SOLUTION

1. (c)
Paralytic ileus is a common complication after abdominal surgery where the intestines stop moving normally. Leading to a buildup of gas and fluids, causing abdominal distention and the absence of bowel sounds.

2. (b)
When the amount of amniotic fluid exceeds 2 liters the condition is called Polyhydramnios

- **Oligohydramnios :** Too little amniotic fluid.
- **Bag of water :** Is a common term for the amniotic sac.
- **Amnionitis :** Refers to inflammation of the amniotic sac.

3. (a)
In identical twins where the foetuses share common chorion, the number of placenta is one.

- When twins share a chorion they are called monochorionic twins, and this means they have only one placenta.
- If twins have separate chorions, they have two separate placenta is called dichorionic twins.

4. (a)
Anabolic steroids are drugs that sports persons take to boost their strength mental and physiological capability. These drugs are also called anabolic-androgenic steroids. They are made to work like a hormone testosterone.

5. (b)
Fifth disease is also known as Erythema Infectiosum. It is a childhood condition that appears as a bright red rash on child's cheeks. It's nicknamed "slapped cheek disease" because of this rash. It is caused by the human parvovirus B_{19}. This virus is common and very contagious infected people can spread through coughing and sneezing.

6. (b)
World Mental Health Day is observed on 10 October every year. Aims to raise awareness of mental health issues an encourage efforts to support those experiencing mental health issues.

- It was first observed in 1992. At the initiative of world federation for Mental Health.

7. (b)
A normal human cell have 23 pairs or 46 chromosomes. A chromosome is a strand of DNA that is encoded with genes. That carry the genetic information that's passed form parent to child through heredity.

- Chromosomes is human can be divided into two types:
- Autosomes (Somatic chromosomes)
- Allosome (sex chromosomes)

8. (d)
Ventilator associated pneumonia, Catheter associated urinary tract infections, and cannula-associated thrombophlebitis are preventable hospital acquired infections but drug associated toxicity is a Potential side effect of medication not an infection.

9. (a)
Sodium is not a major intracellular electrolyte. Sodium is primarily an extracellular Electrolyte, it is found in higher concentrations outside of cells.

10. (a)
The most common type of error reported were incorrect doses and infusion rate. The most common reason was to use the full names of drugs and abbreviation instead of similar names of Drugs. Therefore, the most important cause of medication error was a lace of pharmacological knowledge.

11. (b)
Normal heart Rate is typically referred to as sinus Rhythm and is usually between 60 to 100 beat/min. Bradycardia refers to a slow heart Rate below 60 bpm.

12. (a)
Station in OG is related to the ischial spine. In pregnancy and childbirth, obstetrics station refers to descent of the fetal presenting part (head) in the pelvis. An imaginary line is drawn between the two bones in the pelvis (known as ischial spines).

13. (a)
In year 1959 the Declaration of the Rights of the child adopted by the United Nation On 20 November 1959, the Declaration of the Rights of child was adopted unanimously by all 78 members states of the United National General Assembly in Resolution 1386 (XIV). The Special right of the child was first enunciated in the Universal Declaration of Human Rights.

14. (c)
You will not usually need to do anything special to prepare for amniocentesis. You can eat and drink as normal beforehand you may be advised to avoid going toilet far a few hours before the test.

15. (b)
Weaning is when a baby moves from breast milk to other sources of nourishment. Weaning your baby is a process that takes patience and understanding from both you and your child.
Weaning is a natural stage in your baby's development still, many mothers have mixed emotions.

16. (c)
Problem solving is the highest level of Gagne's learning hierarchy, it emphasizes to involve learners in solving problems by using higher order intellectual skills.
Eight intellectual levels or eight conditions of learning are-
(1) Signal learning
(2) Stimulus - response learning
(3) Chain learning
(4) Verbal association
(5) Discrimination learning
(6) Concept learning
(7) Rule learning
(8) Problem solving
Problem solving – The learner discovers a combination of previously learned rules and applies them to solve a novel situation.

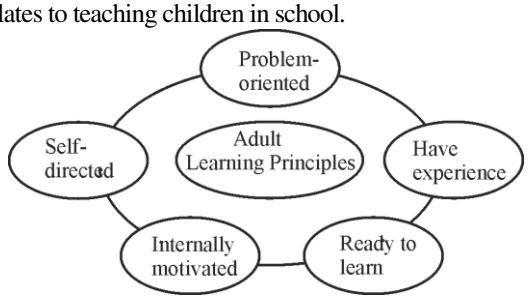
17. (c)
Placenta secretes all the following hormones includes:-
(1) Progesterone
(2) Human placental lactogen(hPL)
(3) Oestrogen
(4) Human chorionic gonadotropin hormone (hCG).
These hormone is only produced during pregnancy almost exclusively in the placenta.

- Luteinising hormone (LH) is produced and released by the anterior pituitary gland not the placenta.

18. (d)
The major approaches to problem solving are inductive, deductive, analytic and synthetic.

- Inductive reasoning involves drawing broad generalizations from specific observations.
- Deductive reasoning starts with a general statement or hypothesis and examines the possibilities to reach a specific, logical conclusion.
- Analytic thinking involves breaking down a complex problem into smaller, manageable parts to understand its components.
- Synthetic thinking involves combining different elements or parts to create a new whole or solution.

19. (b)
Andragogy refers to the methods used to teach adults. The word andragogy is usually used in contrast with Pedagogy which is the art or science of teaching in general, especially as it relates to teaching children in school.



20. (d)
Behavior is different from self hypothesis when is the body image sole self esteem etc are component of self concept. Self concept is how you perceive your behavior abilities and unique characteristic.

21. (a)
In the year 1977 India was declared a smallpox free country by an International commission for Assessment of small pox eradication on 5 July an independent assessment report proclaims that there is no evidence of smallpox after 5 July 1975. 23 April 1977: Two year search and active Surveillance activities confirm that India is free of small pox.
December 1979: Small pox is officially eradicated from the planet.
After reconvening in Delhi, they concluded that small pox had been eradicated from India by appropriate and vaccination in the community.

22. (d)
Patriarchal type of family comes under the male head of the family possessing all powers Patriarchy is a social system in which men hold primary power and predominate in roles of political leadership, moral authority, social privilege and control of property.

23. (d)
A sunken fontanelle, also known as a depressed soft spot, is a sign of dehydration in infants. When a baby is dehydrated the fluid volume in their body decreases, which can cause the fontanelle to appear sunken.

24. (a)
Family functioning is a broad term that may encompass task accomplishment the process by which the family achieves goals.
This includes how family members communicate, solve problems, and support each other.

25. (a)
Value clarification is any process intended to promote an individual's awareness and understanding of his or her moral principles and ethical priorities and their behavior in daily life such as Integrity, privacy, family, honesty, harmony and loyalty.
Thus, value clarification is process of identifying, examining and developing one's own individual values.

26. (e)
Sociology is the study of social life, social change and the social causes and consequences of human behavior. Sociologist investigate the structure of a groups, organization and societies and how people interact with in these contexts.
Note:- Study of mind and human behavior is called psychology.

27. (b)
The cultural lag or cultural gap concept was first theorized and the term was coined by William Fielding Ogburn, an American sociologist, in his book "Social Change with Respect to culture and original nature", published in 1922.

28. (a)
According to social anthropologists, sociologist, and historians the institution of marriage in human society gradually evolved to its present stage starting from promiscuous relationship between male and female (i) Consanguineous marriage (ii) Group marriage (iii) Syndesmian marriage (iv) Patriarchal marriage (v) Monogamy.

Syndesmian marriage - The third stage in the evolution the male and female which, however, was only temporary and not controlled by any rules and regulations. This pairing could be broken by the mere desire of anyone.

29. (a)

Community is a social group of any size whose members reside in a specific locality, share government and often have a common cultural and historical heritage.

30. (b)

Oxygen-The efficiency of artificial respiration can be greatly increased by the simultaneous use of oxygen therapy. The amount of oxygen available to the patient in mouth-to-mouth is around 16%.

31. (b)

Cancer is a group of diseases involving abnormal cell growth with the potential to invade or spread to other parts of the body. Cancer cells grow and divide at an abnormally rapid rate. These abnormal cells grow into a lump or tumor. Cancer is caused by changes (mutations) to the DNA within cells.

32. (c)

Kawasaki disease is a serious condition that's most common in children under 5 year of age. It causes a high fever along with a strawberry-like appearance in the tongue. Not all cases are life threatening, but Kawasaki disease may increase the risk of heart complications if left untreated. This disease affects blood vessels causing strawberry tongue.

33. (a)

Air embolism results from the aspiration of a small or large volume of air through any operative vent in the venous circulation. It is liable to occur during any operation in the neck.

Venous air embolism is a known risk during percutaneous dilatational tracheostomy.

- Tracheostomy is a surgical procedure to create an opening-through the neck into the trachea (windpipe).

34. (c)

The nurses assessment indicates a soft uterus, which suggest that the uterus is not well-contracted. The uterus is shifted toward the right side, which could indicate that something is pushing it out or its normal midline position. The fundus is 2 fingers above the umbilicus well involved (return to its pre-pregnancy size).

Considering these findings, the most likely cause is bladder distension. A full bladder can push the uterus upward and out of its normal position, causing it to feel soft and shifted to one side.

35. (b)

Impetigo- Impetigo is common and highly contagious skin infection that mainly affects infants and young children.

Impetigo cause by bacteria including staphylococcus aureus and group a streptococcus.

36. (c)

In neonatal and pediatric emergencies, if intravenous (IV access is not possible, Intravenous (10) access is the next priority. The proximal tibia is the most common site for 10 access, as it allows rapid administration of fluids and medications during CPR. It is a safe and effective method until IV or central access is established.

37. (a)

The correct sequence for breast cancer assessment typically begins with a clinical breast exam followed by a Mammogram if indicated and a tissue biopsy for definitive diagnosis if necessary. USG can be used as an adjunct to mammography and history is important but usually precides the physical exam. Skin assessment may be part of the clinical evaluation, but it is not a separate step in the sequence.

38. (d)

Gossypiboma also known as textiloma or cottoroid (Gauzema). It is rare but serious surgical complication that occurs when a foreign object like a surgical sponge or guaze is accidently left inside a patient's body. The terms come from Latin word gossypium meaning "cotton" and the Swahili word boma meaning "place of concealment". Gossypiboma can cause life threatening complications. It can be diagnosed using abdominal x-rays ultrasounds or CT scans or during surgery.

39. (b)

Long-term use of loop diuretics can lead to a decrease in sodium levels in the body, resulting in hyponatremia. This is because loop diuretics increase the excretion of sodium in the kidneys.

Hyponatremia is typically defined as a serum sodium level of less than 135 mEq/*l*.

40. (b)

Stiffening of body

- Rigor Mortis causes the stiffening of the body muscles due to chemical changes in myofibrils.
- It occurs when the body muscles are unable to relax normally.
- It can cause sharp pain and makes it difficult to move the muscles.
- It occurs in the third stage of death.

Subject Knowledge (Descriptive Questions)

1. Define Partograph, what are the components of partograph?

Ans. : Partograph-

- A partograph is a graphical record of the observations made a women in labour
- It was developed and extensively tested by the world health organization (WHO)
- Partograph should be started only when a woman is in active phase of labour
- Contraction must be 1 or more in 10 minute, each lasting for 20 secs or more
- cervical dilation must be 4 cms or more

Components of Partograph

1. Fetal condition
2. Progress of labour
3. Maternal condition
4. Drugs and IV fluids

(1) Fetal Condition:-
- Fetal heart rate
- Liquor amnii
- Moulding of fetal head

(2) Progress of labour :-
- Cervical dilatation
- Descent of the fetal head
- Uterine contraction
- Alert and action lines

(3) Maternal monitoring:-
- vital sign
- Urine analysis

(4) Drugs and IV fluids:-
A dedicated section to record the administration of any medication, IV fluids or oxytocin.

2. Define breech presentation Enlist the maneuvers using in breech presentation.

Ans. : Breech presentation:-
Breech presentation is when the lie of the baby is longitudinal and pelvic or podalic pole of foetus presents at the brim and cephalic pole at the fundus

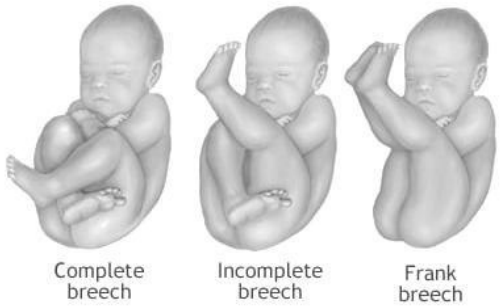
Classification:-

(i) Frank breech – A frank breech (otherwise know as an extended breech) is where the baby's legs are up next to their abdomen, with their knees straight and their feet next to their ears. This is the most common type of breech.

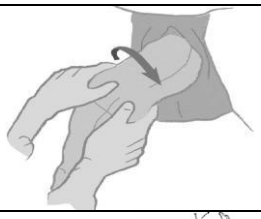
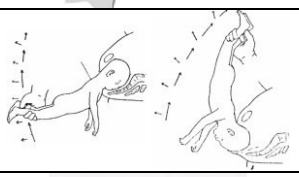
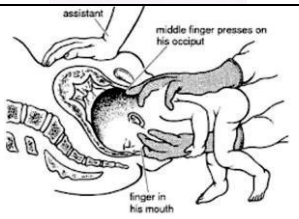
(ii) Complete breech - A complete breech (or flexed breech) is when the baby appears as though they are sitting crossed-legged with their legs bent at the hips and knees.

(iii) Footing breech - A footling breech is when one or both of the baby's feet are born first instead of the pelvis. This is more common is babies born prematurely or before their due date.

(iv) Kneeling - A kneeling breech is when the baby is born knees first.



Maneuvers in breech presentation:-

(i) Pinard maneuver	
(ii) Loveset maneuver	
(iii) Burn marshal maneuver	
(iv) Bracht maneuver	
(v) Mauriceau smillie veit maneuver	
(vi) Prague maneuver	

3. Explain the rural health services in India.

Ans. : Rural Health Services in India:-
Network of infrastructure developed within the villages and up to the block levels help to provide the health services in the rural areas.

India's population is mostly rural-around 65-70% people live in villages.

To provide accessible, affordable, and quality healthcare to these areas, the government has built a structured three-tier rural health system.

Structure of Rural Health Services –

(a) Sub-Centre (SC) -
First level of contact between community and health system.

Covers: 3,000-5,000 population (in hilly/tribal areas)

Staff- 3

Functions -
- Immunization,
- Family planning
- Maternal -child health
- Basic medicines and health educations

(b) Primary Health Centre (PHC) -
Second level contact.
Covers : 20,000 - 30,000 population (hilly/tribal)
Staff -15
Function -
- OPD Services
- Minor emergency care
- MCH Services
- National health programmes implementation

(c) Community Health Centre (CHC) -
Referral centre for PHCs.
Covers: 80,000 - 1,20,000 population. (hilly/tribal)
Staff - 25
Function -
- 30-bedded hospital
- Emergency and specialist care
- Surgical and obstetric facilities

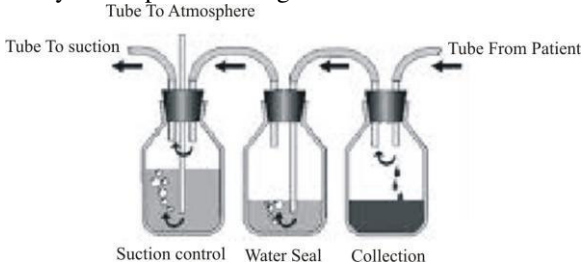
(d) District Hospital (DH) -
Highest level in the rural health hierarchy.
Covers: Whole district population.
Functions -
- Comprehensive medical and surgical care
- Supervision of CHCs and PHCs
- Training and data collection.
- Implementation of national health programmes.

Supporting Programmes and Schemes -
- NRHM 2005
- ASHA
- JSY (Janani Suraksha Yojana)
- Ayushman Bharat

Objectives of Rural Health Services
- Provide universal health coverage in villages.
- Reduce maternal and infant mortality.
- Control communicable and non-communicable diseases.
- Ensure health education and sanitation.
- Promote family planning and immunization.

4. Write about water seal chest drainage system, and its nursing management?

Ans. : Water seal chest drainage system-
It is defined as the placement of chest tube through chest wall to restore of negative pressure in pleural cavity and expand the lungs.



Placement of Catheter-
2^{nd} – 3^{rd} intercostal space anterior chest wall for air remove.
$8 – 9^{th}$ intercostal space posterior or laterally chest wall for fluid or blood.
Mediastinum just below sternum for fluid and blood.

ICD System
- It is directly connected to the patients and here drainage collected
- The first chamber allows fluid that is drained from the chest to be collected.
- Notify the doctor if drainage more then 70 - 100 ml/hour or if drainage become suddenly red.

Water Seal Chamber–
- It prevents from atmospheric air from entering into pleural space.
- Fluid level fluctuates with respirations until lungs are fully expanded.
- Fluctuation in the water seal chamber stopped if the tube is obstructed or kinked, if any depended loops exists or resolved, if the suction is not working properly and if the lungs have reexpanded.
- Continuous or excessive bubbling may indicate air leaking or abnormal findings.
- Intermittent bubbling indicate suction level is maintained or normal finding.

Suction Control Chamber –
- It provides the suction which can be controlled to provide negative pressure to the chest.
- This chamber is filled with various levels of water usually 20 cm level to achieve the desired level at suction.
- Without the control of suction may results lungs tissue could be sucked into the chest tubes.
- Constant bubbling may indicate normal finding.
- Vigorous bubbling indicate abnormal finding.

5. What is liver cirrhosis? Write its causes and medical management.

Ans. : Liver Cirrhosis:-
It is a chronic disease in which there has been diffuse destruction and fibratic regeneration of hepatic cell.

Classification of Liver Cirrhosis-
(i) Alcoholic Cirrhosis
(ii) Post necrotic Cirrhosis
(iii) Biliary Cirrhosis
(iv) Cardiac Cirrhosis

Causes-
- Chronic (long term) viral infection of the liver (hepatitis B and C)
- Fatty liver associated with obesity and diabetes.
- Alcohol abuse
- Biliary atresia
- Cystic fibrosis
- Wilson disease
- Hemochromatosis (iron overload)

Medical Management of Liver Cirrhosis-
(i) In severe cases inj. Lasix 20 mg bd or od prescribe (diuretics)
(ii) Inj. ceftriaxone/inj taxim 1gm 12 hourly (antibiotic)

(iii) Inj. Pantop 40 mg bd (antacid)
(iv) Inj. vit K 1 gm (10 mg) ampule IM OD for 5 days, to prevent bleeding disorder.
(v) Inj. Neurobion or inj. vitcofol 2 cc IM od for 5 days.
(vi) Potassium sparing diuretic spironolactone (Aldactone)-50 mg BD use to decreased ascites and pleural effusion.
(vii) Tab. Lasilactone 25/50 mg bd or od.
(viii) **Lactulose (cholac)-** used to eliminate the ammonia from the blood into the bowel. Tap water enema may also be ordered to help the body eliminate the ammonia.

6. What is myasthenia gravis? Write its causes and complication.

Ans. : Myasthenia Gravis-
Myasthenia gravis is an autoimmune disorder affecting the myoneural junction, in which weakness is caused by circulating antibodies that block acetylcholine receptors at the postsynaptic neuromuscular junction, inhibiting the excitatory effects of the neurotransmitter acetylcholine throughout neuromuscular junctions.

Cause of myasthenia gravis-
(i) Idiopathic
(ii) Autoantibodies that destroys acetylcholine receptors
(iii) Thymus tumors found in 15% of patient.

Clinical Manifestation
- Affects any of the muscles that control voluntarily, certain muscle groups are more commonly affected than other.

eye, face, throat, neck, limb, muscles
- The hallmark of myasthenia gravis is fatigability
- Dysarthria
- Dysphagia
- Ptosis
- Diplopia
- Nasal- sounding speech
- Worsening muscle weakness

Nursing Management:-
The role of nursing management is crucial for assessing, educating and supporting patients with myasthenia gravis to improve their quality of life and prevent complications.

Assessment and Monitoring
- **Respiratory Status:-** Continuously monitor respiratory rate, depth, effort, oxygen saturation, and lungs sounds especially in patients with respiratory muscle weakness. Be prepared for a myasthenic crisis by having suctioning and emergency equipment ready at the bedside.
- **Swallowing and nutrition:-** Assess swallowing ability and gag reflex to prevent aspiration. A speech - language pathologist referral may be needed.
- **Musculoskeletal Function : -** Evaluate muscle strength and fatigability by observing the patient ability to perform daily activities.
- Neurological status monitor for changes in vision (ptosis, diplopia) and speech patterns, which can worsen with fatigue.

Complication-
A myasthenic crisis is an exacerbation of the disease process characterized by severe generalized muscle weakness that may result in respiratory failure.

7. What are endocrine glands? Enlist the endocrine glands and explain hypothalamus gland.

Ans. : Endocrine glands-
(i) A structure which makes hormones in the body is called endocrine glands.
(ii) They are also called ductless glands because they do not have ducts to secrete their hormones.
(iii) A group of endocrine glands which produces various hormones is called an endocrine system. It is also called hormonal system.
(iv) Endocrine system helps in coordinating the activities of our body.

Various endocrine glands-
(i) Hypothalamus
(ii) Pituitary gland
(iii) Thyroid gland
(iv) Parathyroid gland
(v) Thymus
(vi) Pancreas
(vii) Adrenal gland
(viii)Testes
(ix) Ovaries

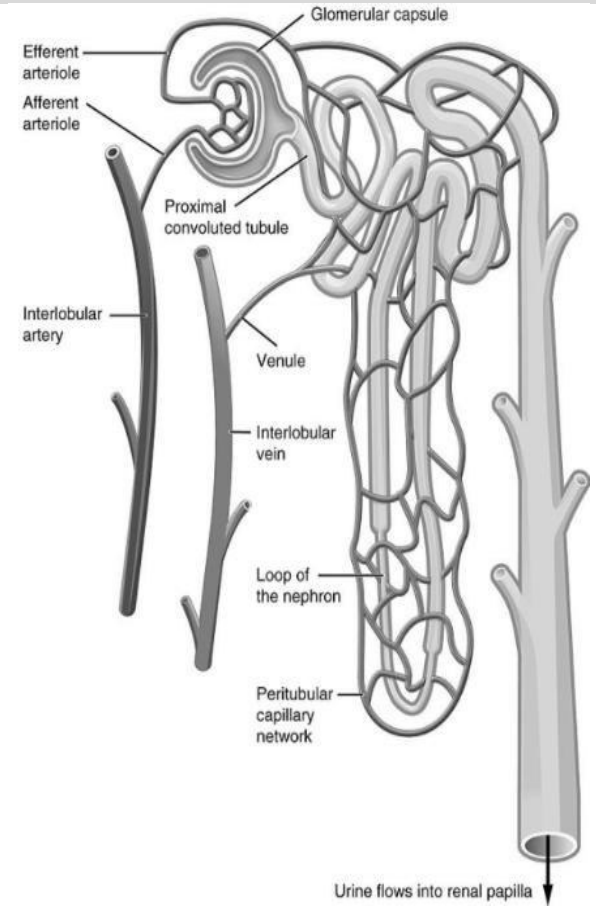
Hypothalamus-
The hypothalamus is a portion of the brain that contain number of small nuclei with a variety of function.
One of the most important functions of the hypothalamus is to link the nervous system to the endocrine system via the pituitary gland.

Function of hypothalamus-
(i) The hypothalamus is responsible for certain metabolic processes and other activities of the autonomic nervous system.
(ii) It synthesizes and secretes certain neurohormones often called releasing hormones or hypothalamic hormones and these in turn stimulate or inhibit the secretion of pituitary hormones.
(iii) The hypothalamus controls body temperature, hunger, fatigue, sleep etc.

8. Describe the structure of nephron and explain the formation of urine.

Ans. : Nephron-
Nephtron is the structural & functional unit of kidney. It perform the main job of filtering blood & forming urine.

Structure -



The mammalian nephron is a long tube like structure its length varying from 35-55 mm long. At one end, the tube is closed, floded and expanded, into a double walled, a cuplike structure called the Bowman's capsule or renal corpuscular capsule, vessels called the glomerulus.

This capsule and glomerulus together constitute the renal corpuscle. The structure of nephron comprises two major portions-

(A) Renal Corpuscle-

The renal corpuscle consist of a glomerulus surrounded by a Bowman's capsule.

The glomerulus arises from an afferent arteriole and empties into an efferent arteriole.

(B) Renal Tubule-

The renal tubule is a long convoluted structure that emerge from the glomerulus and can be divided into 3 parts-

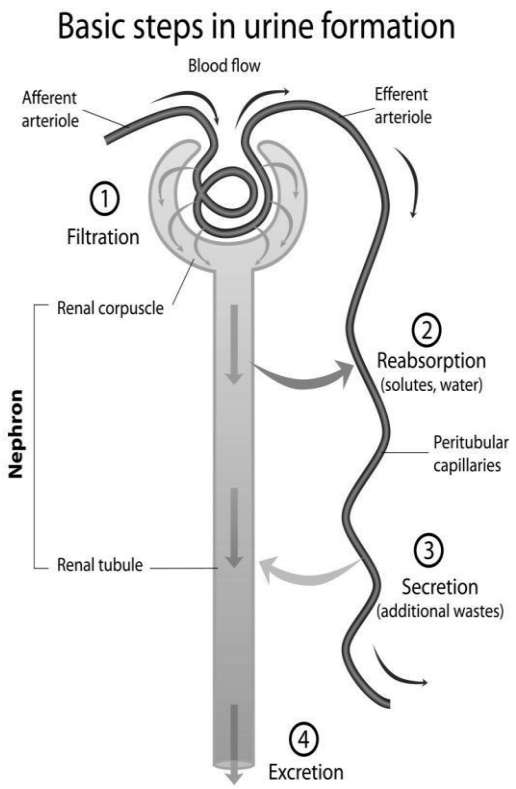
(i) Proximal convoluted tubule (PCT)

(ii) Loop of Henle

(iii) Distal convoluted tubule (DCT)

The major function of tubules is reabsorption and the process can either be through active transport or passive transport.

Process of urine formation-



(i) Glomerular filtration :- Over a million microscopic structures called nephrons are found in each kidney. Each nephron has a glomerulus, which is where blood is filtered. The glomerulus is a part of the circulatory system surrounded by the glomerular capsule (or Bowman's capsule).

(ii) Tubular Reabsorption:- All substances, excluding blood cells and proteins, are driven through the capillaries at high pressure during glomerular filtration. Some of the chemicals in the filtrate are reabsorbed at the level of the Proximal Convoluted Tubule (PCT). Sodium chloride, potassium, glucose, amino acids are some items reabsorbed.

(iii) Tubular Secretion:- The glomerular filtrate then travels to the renal tubule, where nutrients and water are reabsorbed into capillaries. Waste ions and hydrogen ions go into the renal tubule at the same time from the capillaries. Secretion is the term for this procedure.

9. Function of cerebrospinal fluid.

Ans. : Cerebrospinal fluid-

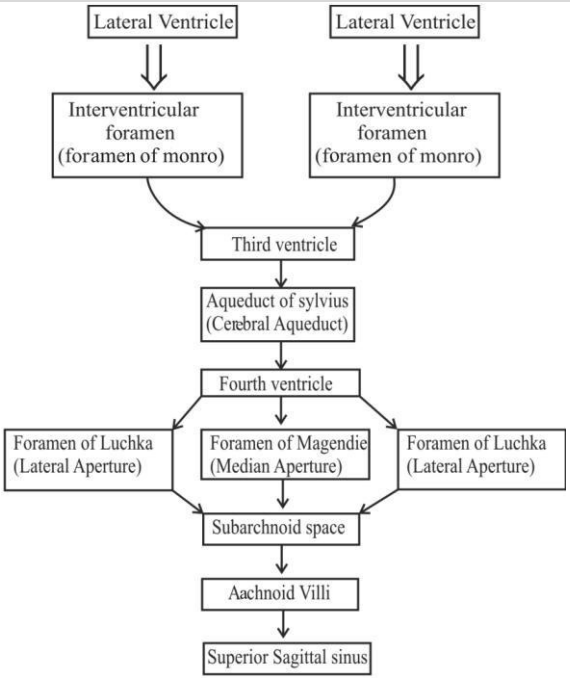
The cerebrospinal fluid (CSF) is a clear, colorless transparent, tissues fluid present between the cavity of brain and central canal of the nervous system or subarachnoid spaces.

Rate of formation = 20-25 ml/hour

550 ml/day in adults

Total quantity – 150 ml

Process of CSF Production -



Function of CSF-

(i) Mechanical Protection -

CSF acts as a shock absorber, protecting the brain and spinal cord from trauma of sudden movements.

(ii) Buoyancy -

The brain weight about 1,400 grams, but when suspended in CSF, it feels like only 50 grams. This buoyancy prevents the brain from collapsing under its own weight.

(iii) Nutrient Supply & Waste Removal -

CSF transports nutrients, and oxygen and it also removes metabolic wastes.

(iv) Chemical Stability /Homeostasis -

Maintains the ionic balance and helps regulate pH, ensuring optimal enzyme and nerve activity.

(v) Circulation of Neuroactives -

CSF distributes hormones, neurotransmitters, and other signaling molecules, throughout the CNS.

(vi) Immunological Protection -

Contains white blood cells and antibodies that help protect against infections. Provides an immunological surveillance system for the brain and spinal cord.

(vii) Regulation of Intracranial Pressure (ICP) -

CSF volume can adjust slightly to maintain constant pressure inside the skull when blood volume or brain tissue changes.

(viii) Lymphatic Function (Waste Clearance) -

CSF helps flush out toxic protein during sleep-important for brain health.

10. Write about Reproductive sign in pregnancy.

Ans. : Reproductive sign in Pregnancy-

(i) Jacqemier's sign – Bluish and purplish discolouration of vagina is called jacqemier sign.

(ii) Chadwick sign – Bluish and purplish discolouration of cervix is called as chadwick sign.

(iii) Goodell's sign – Softening of the cervix is called goodell's sign.

(iv) Osiander sign – Feel pulsation into the vagina is called osiander sign.

(v) Hegar sign – Softening of the lower uterine segment is called hegar sign.

(vi) Piskacek sign – Symmetrical enlargement of uterus is called as piskasek sign.

(vii) Palmer sign – Irregular, arrythmic and painless uterine contraction in the earliest weeks of the pregnancy is called as palmer sign.

(viii) Ladin's sign – Uterus becomes soften from the anterior midline at uterocervical junction is called Ladin's sign.

(ix) Mcdonald's sign – Uterus become flexible from the anterior midline at utero cervical junction is called Mc. Donalds sign.

(x) Von-Fern-Wald's sign – softening of the Fundus of the uterus is called von fern-sign.

11. Effects of environment on human growth and development.

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Ans. : Environmental factors significantly influence human growth and development shaping aspects from physical health to cognitive and social skills through influences like nutrition, pollution, family, culture and socioeconomic status.

Environmental Factors–

(i) Physical environment –

Pollution – Air water and Soil pollution can lead to increased disease, respiratory issues and other health problems.

Climate – Temperature, light and other climate factors are crucial for overall health and survival.

Nutrition:- Dietary quality and nutrition are important for the physical and brain development of children.

Exercise:- Physical activity and opportunities to play outside are important for children is development.

Sunlight:- Exposure to natural greenery can increase bone strength in children.

(ii) Social and Cultural Environment –

Family and Community – The home, school and broader community provide opportunities for physical activity and guide the developmental of volues and attitudes.

Socioeconomic status – Income access to health care, education and housing significantly affect a person's quality of life and developmental outcomes.

Factors Affecting Growth and Development

The growth and development are positively influenced by factors like parental health and genetic composition, even before conception.

i. Genetic factors play a primary role in growth and development. The genetic factors influencing height are substantial in the adolescence phase. A large longitudinal cohort study of 7755 Dutch twin pairs has suggested that the additive genetic factors predominantly explained the phenotypic correlations across the ages for high and body mass index.

ii. Fetal health has a highly influential role in achieving growth and development. Any stimulus or insult during fetal development causes developmental adaptations that permanently changes the latter part of life.

12. What is defence mechanism? List down the various types of defence mechanism.

Ans. : Defence Mechanism –

Sigmund freud in 1904 used this term "defence mechanism" to refer to the unconscious process that defends or protects a person against anxiety, shame, loss of self esteem, conflict or unacceptable feelings.

Defence mechanism is a pattern of adjustment through which individual relieves anxiety caused by an uncomfortable situation that threaten self esteem.

Classification of defence mechanism-

(i) Positive defence mechanism-

These promote emotional stability, healthy adjustment, and problem solving. They help a person manage stress while staying in touch with reality.

Altruism -

Gaining satisfaction by helping others Donating blood to feel purposeful after loss.

Anticipation -

Mentally preparing for future stress. Expecting difficulties in a new job and planning coping ways.

Compensation -

Covering weakness by emphasizing strength. A short person excels in academics instead of sports.

Humor -

Using laughter to tolerate or discuss uncomfortable feelings. Making jokes during a stressful situation.

Identification -

Adopting qualities or behavior of someone admired. A student imitates a favorite teacher's discipline.

Intellectualization -

Using logic and reasoning to avoid emotional stress. Focusing on facts instead of feeling to avoid emotional pain.

Sublimation -

Channeling unacceptable impulses into acceptable or productive activities. Aggressive person becomes a soldier or athlete.

Suppression -

Consciously choosing to delay dealing with painful thoughts. Focusing on exams and deciding to think about problems later.

(ii) Negative Defence mechanism -

These distort reality, block emotional growth, and may lead to maladaptive behavior.

Acting out -

Expressing feelings through behavior, not words. Shouting instead of saying you're hurt.

Conversion -

Emotional conflict turns into physical symptom. Paralysis without physical cause.

Denial -

Refusal to accept painful reality ignoring medical advice after diagnosis.

Displacement -

Shifting feelings to a safer substitute target. Arguing with family after being scolded at work.

Fantasy -

Escaping reality by imagination. Daydreaming of success instead of working.

Rationalization -

Making excuses to justify wrong actions "I failed because the teacher doesn't like me".

Splitting -

Viewing people people as all good or all bad. Loving someone one day, hating them the next.

Undoing -

Trying to cancel out a guilt-provoking action. Bringing gifts after hurting someone.

13. Enlist the various methods of sterilization and its purpose.

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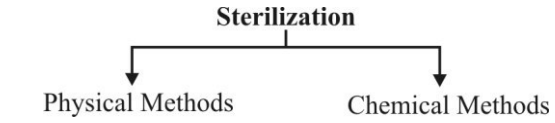
Ans. : Methods of Sterilization-



Physical agents-

Sunlight :-

- Sunlight possesses appreciable bactericidal activity
- Due to its content of ultraviolet rays heat rays

Drying :-

- Moisture is essential for the growth of bacteria
- Drying in air deleterious effect on many bacteria

Heat :-

- The factors influencing sterilization by heat are:
- Nature of heat
- Temperature and time
- Number of microorganism present

(i) Dry heat :- Kills organisms by protein denaturation, oxidative damage and toxic effects of elevated levels of electrolytes.

(ii) Moist heat : - Kills microorganisms by coagulation and denaturation of their enzymes and structural portions.

Filtration :- May be done under either negative or positive pressure example membranes filter made of cellulose acetate.

Radiation

Chemical agent-

Alcohol
Ethyl, isopropyl, trichlorobutanol
Aldehydes
Formaldehyde, glutaraldehyde
Halogens
Phenols
Surface active agents

Gases – Ethylene oxide, formaldehyde, beta propiolactone.

Purpose of sterilization–

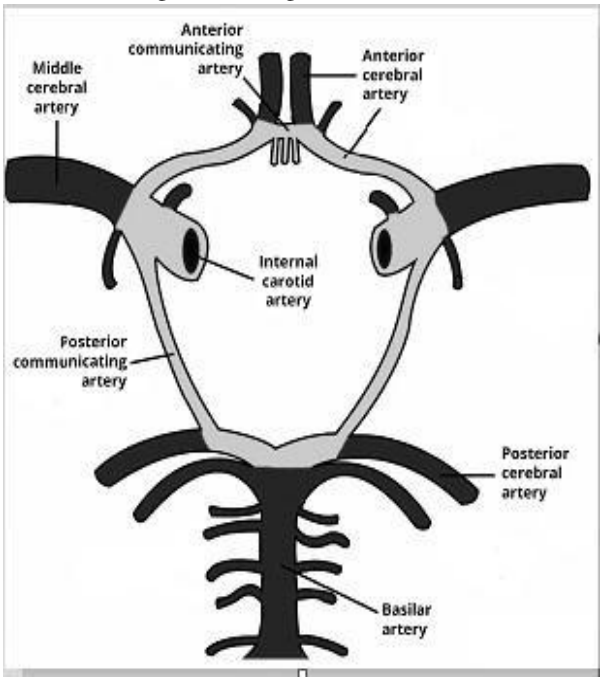
- To prevent infection Kills disease-causing microbes on surgical instruments, dressings, and equipment to protect patients and healthcare workers.
- To maintain asepsis Ensures a sterile (microbe-free) environment in operation theaters, labor rooms, and labs.
- To prevent contamination keeps cultures, samples, and medicines free from unwanted microorganisms.
- To ensure patient safety Prevents postoperative infections and complications.
- To protect medical staff Reduces risk of exposure to infectious materials.
- To maintain product quality used in pharmaceutical and food industries to make products safe and increase shelf life.
- For research accuracy prevents contamination of experimental materials in laboratories.

14. Explain the circle of willis and its function.

Ans. : Circle of Willis–

The circle of willis is a ring shaped arrangement of arteries at the base of the brain that connects the anterior circulation (from the internal carotid arteries) and the posterior circulation (from the vertebrobasilar system).

It providing a vital collateral pathway to supply blood to the brain and protecting it from ischemia in case of arterial blockages or damage.



It includes the following arteries:-

Anterior communicating artery:-
Connect the two anterior cerebral arteries

Anterior cerebral arteries :- Supplies blood to the front part of the brain.

Internal carotid arteries:- These arteries supply oxygeneted blood to the brain.

Posterior communicating arteries:-
These connect the internal carotid system to the posterior brainstem.

Posterior cerebral arteries:- These arise from the main basilar artery, which is formed the vertebral arteries, and supply blood to the posterior part of the brain.

Function–

(i) Collateral Circulation – The primary role of the circle of willis is to provide a backup system for the brain.

(ii) Blood flow regulation – It connects the anterior (carotid) and posterior (vertebrobasilar) circulations, allowing blood to flow between them if one is compromised.

(iii) Compensation for blockages – If a major feeding artery is obstructed, the blood can reroute through the communicating arteries within the circle to reach the brain tissue.

15. Describe about immunoglobulins and its function.

Ans. : Immunoglobulins – Immunoglobulins is a glycoprotein that is made in response to an antigen and can recognize and bind to the antigen that caused its production.

Classification of immunoglobulins –
Based on structure and antigenic nature of H chain the immunoglobulins are classified into –
IgG (gamma)
IgA (Alpha)
IgM (Macro)
IgD (Delta)
IgE (epsilon)

Function of immunoglobulin –

IgG – The most abundant type found in blood and tissue fluids. It provides long term immunity, transfers from mother to fetus for protection and can bind to phagocytes and activate complement.

IgM – The first antibody produces during an initial infection. It is often found in the blood and lymph system, acting as a first line of defence and forming large structure to trap antigens.

IgA – It found in mucosal secretion like tears, saliva, breast milk and intestinal fluids. It prevents viruses and bacteria from attaching to and invading tissue.

IgE – Involved in allergic reaction and defending against parasitic infection.

IgD – Primarily found on the surface of B cells, where it acts as a B cell receptor, recognizing antigens and initiating the immune response.

EMRS-FEMALE STAFF NURSE (MAINS)

Subject Knowledge (Descriptive & Objective Questions)

PRACTICE SET-2

1. A patient undergoes thyroidectomy shows the symptoms of carpopedal spasm. Which medication is to be administered for the patient?
(a) Calcium gluconate
(b) Calcium sulphate
(c) Magnesium gluconate
(d) Magnesium sulphate

2. A doctor prescribe a medicine 20mcg BID and available dose is 30mcg/15ml. Calculate the morning single dose?
(a) 10 ml (b) 15 ml
(c) 25 ml (d) 20 ml

3. Which of the following finding suggest to worsening condition of dengue or severe dengue symptoms except?
(a) Severe Abdominal pain
(b) Persistent vomiting
(c) High grade fever
(d) Blood in vomit or stool

4. A patient admitted in hospital with abdominal distension normal vital sign, lower leg edema or swelling but during supine position jugular vein distended and visible on inspection. Which sign indicate to extracellular fluid overload, except
(a) Extended jugular vein
(b) Oedema
(c) Normal vital sign
(d) Peripheral oedema

5. Nurse taking care of child who is having epilepsy. What nurse should do immediately?
(a) Airway management and provide side lying position
(b) Administer oxygen to child
(c) Do nothing and record the epilepsy type and duration
(d) Inform doctor about epilepsy and record in nurse's chart

6. Core body temperature can be measured using all of the following methods; except:
(a) Oral (b) Rectal
(c) Temporal artery (d) Esophageal

7. During psychiatric interview patient retains a constellation of ideas long after they have ceased to be appropriate. E.g., "Where do you live?" "London", "How old are you", "London". The term used to explain the condition is:
(a) Perseveration (b) Mannerisms
(c) Abstinence (d) Echopraxia

8. Unreversed hypovolemic shock progresses to which of the following types of shock
(a) Anaphylactic shock (b) Cardiogenic shock
(c) Septic shock (d) Neurogenic shock

9. The philosophy which believes that discipline is maintained through affection and sympathy and not by punishment is
(a) Idealism (b) Pragmatism
(c) Realism (d) Naturalism

10. To Calculate the dose of a medicine for a child which of the following formula is used
(a) Young's rule (b) Clark's rule
(c) Fried's rule (d) All of them

11. Which of the following statement about Infant Mortality Rate (IMR) is correct?

(a) $\text{IMR}=\frac{\text{Number of deaths of children under one year of age in a year}}{\text{Total of live births in the same year}}\times 1000$

(b) $\text{IMR}=\frac{\text{Number of deaths of children under 2 years of age in a year}}{\text{Total of live births in the same year}}\times 1000$

(c) $\text{IMR}=\frac{\text{Number of deaths of children under one year of age in a year}}{\text{Total of live births in the same year}}\times 100$

(d) $\text{IMR}=\frac{\text{Number of deaths of children under one year of age in a year}}{\text{Total of live births in 5 year}}\times 1000$

12. The method of helping the individual by encouraging him to discover the reason for his behaviour is called ____.
(a) Behavioral therapy
(b) Cognitive therapy
(c) Individual psycho therapy
(d) Crisis intervention

13. The acronym 'URGE' summarises the symptoms and criteria for diagnosis of :
(a) Alzheimer's disease
(b) Restless leg syndrome
(c) Prostatic hypertrophy
(d) Parkinsonism

14. Which process comes under a child expected to learn directly from nature through personal experiences?
(a) Pragmatism (b) Realism
(c) Idealism (d) Naturalism

15. In which phase of the family cycle starts with the arrival of first child?
(a) Formation phase (b) Expansion phase
(c) Completion phase (d) Contraction phase

16. Which of the following categories of children with mental retardation is referred to as a trainable group ?

(a) Moderate mental retardation
(b) Mild mental retardation
(c) Profound mental retardation
(d) Severe mental retardation

17. Changes in relationships, economic self-sufficiency, small family, marriage with partner, whose characteristics is it
(a) Nuclear family (b) Joint family
(c) Traditional family (d) Modern family

18. The Biomedical Waste (Management and Handling) Rule came into enforcement in India in :
(a) 1965 (b) 1980
(c) 1998 (d) 2010

19. Job responsibilities of Nursing Superintendent in the hospital are all except
(a) Planning and Implementation of policies
(b) Preparation of organisation chart
(c) Nursing rounds
(d) Maintain admission register of new patients

20. The leadership style in which each member acts according to his/her choice with leader having very little role to play is:
(a) Formal (b) Autocratic
(c) Democratic (d) Laissez fair

21. Which of the following concept is related to Peplau's conceptual model?
(a) The supportive-educative nursing system is a system in which the client is able to perform or can and should
(b) Nursing can intervene in the client's response to stress at three levels: Primary, secondary and tertiary prevention.
(c) A therapeutic or "helping" relationship is established through use of these interpersonal techniques and is based on a knowledge of theories of personality development and human behavior.
(d) Nursing practice is directed toward restoring, maintaining, or attaining behavioral system balance at the highest possible level.

22. When a nurse enters the patient's room for administering medications, she notices that the patient's food remained on the table. Helping the patient in providing food and then administering the medication is an act of:-
(a) Beneficence (b) Normal efficiency
(c) Maleficence (d) Accountability

23. The hospitals run by limited companies formed under Companies Act are called:
(a) Public hospitals
(b) Private hospitals
(c) Voluntary hospitals
(d) Corporate hospitals

24. After taking blood from Blood bank, the blood transfusion should be started within?
(a) 30 min (b) 60 min
(c) 90 min (d) No such time limit

25. Which of the following is a most clinical manifestation of VP shunt failure in an infant?
(a) Poor feeding (b) Headache
(c) Alteration in LOC (d) Lack of appetite

26. A new born with 15.3 mg/dl Bilirubin level is admitted in the nursery (NICU) for the management of hyperbilirubinaemia the baby need for phototherapy. Which of the following nursing intervention is correct?
(a) Change position every 2 hourly
(b) Check activity every 4 hourly
(c) Remove eye shields twice in a day
(d) Provide breast feeding every 4 hourly

27. In the following image, identify the clinical condition?

(a) Tinea pedis (b) Tinea corporis
(c) Tinea capitis (d) Tinea unguis

28. A newborn is diagnosed as having Erb's palsy. The nurse is aware that this problem is caused by :
(a) A disease acquired in utero
(b) An X–linked inheritance pattern
(c) A tumor arising from muscle tissue
(d) An injury to the brachial plexus during birth

29. While changing the dressing, nurse inspect that would area become redness and swelling and in duration, what is possible complication
(a) Inflammation (b) Evisceration
(c) Dehiscence (d) Infection

30. Which one of the following preservation is used while packing catgut suture
(a) Isopropyl alcohol
(b) Colloidal iodine
(c) Glutaraldehyde (Cidex)
(d) Hydrogen peroxide

31. The nurse teaches the parents of a child with fever, headache, and a stiff neck that the test used to confirm the diagnosis of meningitis in a child is a :
(a) Blood culture
(b) Lumbar puncture
(c) Meningiomyelogram
(d) Peripheral skin smear

32. A female patient has come with facial burn injury into the emergency department in conscious condition. What will be the treatment for this patient?
(a) Apply sulfasalazine and suggest to come after 7 days in emergency
(b) Admit the patient and start further treatment
(c) Open burn area in air
(d) Apply sulfasalazine and suggest to come in hospital after 48 hrs