Ampholytes are used in:

SDS PAGE
IEF
Immunoelectrophoresis
2 D PAGE

There is a mixture of 5 proteins with pI of 3, 3.6, 4, 4.4 and 5 respectively. What should be the pH of buffer if these proteins have to be separated on gel electrophoresis

4
3.6
4.4
More than 5

Microarray analysis is useful in all EXCEPT:
Genotyping
Cancer marker
Diagnosis of point mutations
Expression analysis

Hybridization technique is useful in all EXCEPT:
Southern blotting
Northern blotting
Western blotting
Microarray analysis

Which of the following techniques is NOT useful in detection of carrier of point mutation?
PCR analysis
ASO probe analysis
RFLP analysis
DNA sequencing

PCR is useful in all EXCEPT:
Diagnosis of infectious diseases
DNA fingerprinting
Prenatal diagnosis of Cystic Fibrosis
Commercial production of insulin

Which of the following is WRONG regarding Decarboxylation of an amino acid to its amine:
histidine to histamine
DOPA to Dopamine
5 hydroxytryptophan to serotonin
Glutamate to glutamin
Aspirin:
Increases the Km and decreases the Vmax of cyclooxygenase
decreases the Km and increases the Vmax of cyclooxygenase
Increases the Km and does not affect the Vmax of cyclooxygenase
Does not affect the Km and decreases the Vmax of cyclooxygenase

Which of the following increases the level of metabolic acids in human body?
Thiamine deficiency
Pyridoxine deficiency
Methyl cobalamin deficiency
Biotin deficiency

Most electronegative component of respiratory chain is:
NADH: Ubiquinone oxidoreductase
Succinate : Ubiquinone reductase
Ubiquinone: Cytochrome C oxidoreductase
Cytochrome C oxidase

Which inhalational agent causes maximum decrease in Portal venous flow and hepatic arterial flow?
Halothane
Ether
Enflurane
Isoflurane

Which of these is not an opioid agonist
Heroin
Ketamine
Methadone.
Morphine

Which of the following technique of regional anesthesia is contraindicated in a 19 year old boy with Raynaud’s disease?
Bier’s block ( IV regional anesthesia)
Brachial plexus supraclavicular block  
brachial plexus axillary approach  
Infraclavicular brachial plexus block  
Meralgia paresthetica is due to involvement of:-  
Sural nerve  
Med cutaneous nerve of thigh  
Lateral cutaneous nerve of thigh  
Peroneal nerve  
Which of these cause maethaemoglobinemia?  
Procaine  
Prilocaine  
Lidocaine  
Bupivacaine  
Regarding flail chest all the following are true EXCEPT  
At least fracture of three ribs at two places  
Should be intubated if pO2 less than 40% with 60 % oxygen  
It may not be evident in young Pt  
Should be treated with IPPV and fixation if condition severe  
True regarding dexmedetomidine is all except:  
Highly selective alpha 2 agonist acting at locus ceruleus  
Titrable sedation and sympatholysis  
No analgesic property  
8 times more alpha2 selectivity than clonidine  
True regarding ? cyclodextrins is all except:  
Directly bind to steroidal non depolarizing muscle relaxants  
Do not act on receptors or ion channels  
Efficacy of block reversal is maximum for Rocuronium and least for pancuronium  
Require anticholinesterases drugs along with them to prevent side effects  
CHEOPS scale includes all except :  
Cry  
Touch position  
Torso position  
Oxygen saturationhe  
characteristic of bandl’s ring are all except:  
related to obstructed labour  
arises due to focal myometrial spasm  
ascends up as labour progresses  
Which is the commonest neurological birth injury?  
Erb’s  
Klumpke’s  
Brachial plexus injury  
Facial nerve palsy  
One of the following is not correct in manning’s biophysical profile:  
NST : >= 2 accelerations of >=15 beats/min of >= 15 sec in 20-40 min.  
Fetal breathing: >= 1 episode of rhythmic breathing lasting >= 30 sec in 30 min  
Fetal movement: >= 3 discreet body or limb movements in 30 min.  
Amniotic fluid volume: single vertical pocket of > 5 cm.  
Which of the following is not used as a lactation suppressor?  
Bromocriptine  
Mixogen  
Oxytocin  
Pyridoxine  
Anti-d prophylaxis should be given in all the following except:  
medical abortions for 63 days pregnancy  
amniocentesis at 16 weeks  
 intrauterine transfusion at 28 weeks  
manual removal of placenta  
Which of the following perinatal infections has the highest risk of fetal infection in the first trimester?  
hepatitis B  
syphilis  
toxoplasmosis  
rubella  
The most sensitive pregnancy test is:
radioimmunoassay (b subunit)
radioreceptor assay
ELISA (membrane ELISA)
Pregnancy colour test (b hcg)

Which of the following is not the sign of pregnancy changes?
piskacek’s
stallworthy’s
palmer’s
hegar’s

One of the following is not associated with polyhydramnios:
cleft palate
amnion nodosum
chorangioma of placenta
thyroglossal cyst

Contra indications to breast feeding are all except:
Galactosemia
Rh incompatibility
Puerperal psychosis
Active pulmonary koch’s

In face presentation, the commonest presentation is:
LMA
LMP
RMA
RMP

The karyotyping of rokitansky- kuster- hauser syndrome is:
45 XO
46XX
46XY
47XXY

Hypothalamic amenorrhoea is seen in:
ashermann’s syndrome
stein levinthal’s syndrome
kallman’s syndrome
sheehan’s syndrome

The white discharge which is frothy, associated with small punctate strawberry spots on vagina is seen in:
Candidiasis
Trichomoniasis
C. trachomatis vaginitis
Gardnella vaginitis

Commonest cause of amenorrhoea is:
Pregnancy
Lactation
genital TB
PCOS

Commonest cystic ovarian tumor is
Serous
Mucinous
Dermoid
brenner’s

Ca- cervix, which has extended to lower 1/3 of vagina, parametrium with hydronephrosis but has not reached the lateral pelvic walls is
IIa
IIb
IIla
IIlb

Ca- ovary which has involved left ovary with peritoneal in implants of 3 cm and liver capsule is
Ic
IIc
IIlc
IV

Most common symptom of gestational trophoblastic neoplasia is:
Pain
Bleeding
Breathlessness
abdominal lump

Choriocarcinoma mostly follows:
Abortion
Normal delivery
Molar pregnancy
De novo
Most common mode of spread in ca-cervix is:
Hematogenous
Lymphatic
Direct
Transperitoneal
Trans-stadial transmission is seen in all except-
Indian Tick typhus
Scrub Typhus
Yellow fever, in adverse conditions]
Rocky mountain spotted fever
True about the death certificate in India is
It is the basis for making policy decisions regarding allocation of finances to various health programmes.
It is issued by the treating physician
It is a legal requirement
The cause of death is usually confirmed by autopsy
All of the following are major criteria of US Surgeon General’s guidelines for causation of non-infectious diseases, except-
Replication of findings
Consideration of alternate hypothesis
Biological plausibility
Strength of association
Kappa coefficient is a procedure which can be used to-
Assess the validity of answers given by a group of patients
Assess the agreement, beyond chance, as regards responses to two different sources
Assess the correlation between blood pressure readings taken on the same patient by two different nurses
All of the above.
Which of the following is not a method of control of confounding-
Restriction
Matching
Stratified analysis
Ensuring use of accurate instruments.
For clinical research purposes, HIV testing strategy used is called-
Mandatory
Unlinked-Anonymous
Voluntary and confidential
Need-based
Which of the following is not an example of Appropriate technology?
Nalgonda technique
Double-pot method of chlorination
Biogas Plant
Insecticide-treated bed net.
Which of the following is not an example of Appropriate technology?
Nalgonda technique
Double-pot method of chlorination
Biogas Plant
Insecticide-treated bed net.
A safety margin of + 2 Standard Deviations is not incorporated for the RDA of –
Energy
Fats
Water soluble vitamins
Fat soluble vitamins
A screening test is used in the same way in two similar populations, but the proportion of false positive results among those who test positive in population A is lower than that among those who test positive in population B. what is the likely explanation for this finding?
The specificity of the test is lower in population A
The prevalence of disease is lower in population A
The prevalence of disease is higher in population A
The specificity of the test is higher in population A
A TB suspect undergoes sputum smear microscopy and both his samples are found to be smear negative. He still has symptoms of cough and fever. The next step should be-
Get an X-ray Chest done
Repeat sputum smear microscopy examination after a week
Prescribe broad spectrum antibiotics for 10 days
Diagnose the patient as smear negative TB and start on RNTCP DOTS
As per WHO guidelines for International Travelers’ Health, for a pregnant woman with an uncomplicated pregnancy, flying is permitted up to the end of the- 28th week
32nd week
36th week
37th week
All of the following are common oral conditions reported to occur in HIV infected patients except Candidiasis
Pseudomembranous hairy leukoplakia
Gingivitis
Caries
Mass antibiotic treatment in trachoma is recommended when the prevalence is more than ______ percent
5
10
7
3
Following obstetric practices will reduce the risk of mother to child transmission except:
Avoidance of early rupture of membranes
Conduct routine episiotomies
Using non traumatizing suction cups on vacuum extractors where possible
Avoid foetal scalp puncture
A safe and effective drug in the management of Ascariasis in a pregnant woman is :
Praziquantel
Mebendazole
Albendazole
Pyrantel Pamoate
All new TB cases known to be HIV positive are treated with
Category I regimen
Category II regimen
Category III regimen
None of the above
The following is the logo for-
Leprosy elimination
Iodised Salt
Global Handwashing Day
Water conservation
Which of the following is an objective of RNTCP?
To achieve at least 70 percent cure rate of the newly diagnosed sputum smear-positive TB patients
To detect at least 85 percent of new sputum smear-positive patients after the first goal is met
To achieve at least 85 percent cure rate of the newly diagnosed sputum smear-positive TB patients
Both A & B
ISMH comprises of:
Ayurveda, Yoga, Unani, Siddha and Homoeopathy
Allopathy, Yoga, Unani, Siddha and Homoeopathy
Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
Allopathy, Yoga & Naturopathy, Unani, Siddha and Homoeopathy
All the following show serotonin syndrome, EXCEPT
Meperidine
Procarbazine
Linezolid
Paroxetine
The preferred drug to treat endometriosis is
Danazol
Levonorgestrel
GnRh agonists
Nandrolone if not treated, leads to rupture.

Drug used to prevent progression of parkinsonism is

Selegiline
Amantadine
Tolcapone
Ropinirole

Which of the following causes Torsades de pointes?

Cisapride
Fluconazole
Azithromycin
Lignocaine

Drug which has CSF entry is

Tobramycin
Cyclophosphamide
Flucytosine
Ofloxacin

Which of the following has antianabolic action?

Tetracycline
Cisplatin
Amphotericin B
Oxymetholone

Drug showing nitro reduction is

Prontosil
Cortisone
Chloral hydrate
Chloramphenicol

Which of the following anti-epileptic agents prevents degradation of GABA into neurons?

Vigabatrin
Progabide
Tiagabine
Gabapentine

Side effect of cocaine does not include –

Myocardial failure
Abuse potential

Hypotension
Arrhythmias
Which of the following drug is not used for alcohol deaddiction?

Acamproset
Clonidine
Bupropione
Topiramate

Which of the following will not cause decrease in tidal volume of patient?

NO
Desflurane
Morphine
Sevoflurane

The cardiotoxic local anesthetic is –

Prilocaine
Procaine
Cocaine
Bupivacaine

Which of the following is approved drug treatment in multiple sclerosis?

Interferone a
Interferone ß
Interferone ?

Infliximab

Which of the following statement is false regarding flumazenil?

It acts at barbiturate site of GABAA receptor
It acts as BZD antagonist
It is used to reverse BZD anesthesia
None of above.

Spina bifida occulta is characterized by:

Lack of fusion of vertebral arches
Covered by skin
Seen usually in lumbosacral region
Involvement of underlying neural tissue

Features of right facial nerve damage is all except:
Malignant tumors rarely infiltrate it
Mouth drawn upwards and to the right
Paralysis of all the muscles of face on right side
Accumulation of saliva in the right cheek
Injury to Femoral nerve just below the inguinal ligament will result in all except:
Paralysis of quadriceps muscles.
Inability to extend the knee while sitting.
Knee extension is compensated by Adductor muscles while walking
Loss of sensation along thigh and dorsum of foot
True statements regarding Pudendal nerve block are all except:
Area anaesthetised is perineum except anterior part
It is indicated at during the 1st stage of labour
Bony landmark used is ischial tuberosity in perineal approach
It does not abolish pain from uterine contractions travelling through sympathetic fibers.
Following are the derivatives of mesonephric duct in males except:
Vas deferens
Epididymis
Trigone of bladder
Rete testis
The following statements regarding muscles forming posterior abdominal wall are true except:
Quadratus lumborum is covered anteriorly by anterior layer of lumbar fascia
Fascial sheath of Psoas major extends down into the thigh as far as the lesser trochanter.
Transversus abdominis muscle does not form a part of posterior abdominal wall.
Diaphragm contributes to the musculature of the posterior abdominal wall.
Concerning the Liver the following statements are true except:
The abdominal part of esophagus lies posterior to the left triangular ligament.
The gastro- hepatic ligament is a part of the lesser omentum.
The right hepatic duct drains the quadrate lobe.
The ligamentum venosum connects the left branch of the portal vein to the IVC.
Regarding the inferior mesenteric artery all of the following statements are correct except:
It arises from the aorta behind the uncinate process of the Pancreas.
It supplies the descending colon.
The marginal artery receives contributions from its branches.
It is the artery of the hind gut
All of the following are supplied by Ulnar nerve except:
Dorsal interrossei
Palmar interrossei
Lumbricals
Oppones digiti minimi
A child runs well and is able to walk up and down the stairs, though one step at a time, and makes a tower of 7 cubes. The child also helps his mother undress himself. The most probable age of the child is
6 months
12 months
18 months
24 months
A child's vocabulary contains 10-15 meaningful words first at the age of
8 months
12 months
18 months
36 months
The early adolescent period generally including SMR stages 1-2 of most secondary sexual characters generally lies in which age group?
8-10 yrs
10-13 yrs
14-16 yrs
17-20 yrs
A boy presents with scanty pubic hairs, only slightly pigmented and the scrotum demonstrates a pink color with slightly altered texture in comparison to the previous year. The most probable sexual maturity rating of the boy’s pubic hair is

SMR stage 1
SMR stage 2
SMR stage 3
SMR stage 4

Which of the following statement is untrue about pediatric diphtheria?

A It was the first infectious disease overcome on the basis of microbiology and immunology principles
Diphtheria toxin can be demonstrated by Elek test
The estimated minimum protective levels of diphtheria antitoxin is 0.01-0.1 IU/ml
The incubation period of the disease is 10-14 days
Which of the following cannot help differentiate diphtheria from exudative bacterial pharyngitis due to Gp A streptococcus?
Pseudomembrane
Relative lack of fever
Presence of dysphagia
Older age of presentation
The empirical dose of antitoxin in cases of diphtheria is
10,000-20,000 units
20,000-40,000 units
20,000-1,20,000 units
1,20,000-2,40,000 units
The Olympian brow and Saber shins are signs of which congenital infection in childhood?
Congenital toxoplasmosis
Congenital CMV
Congenital rubella
Congenital syphilis
The commonest presentation of poliomyelitis in children is
Asymptomatic infections
Abortive poliomyelitis
Non-paralytic poliomyelitis
Paralytic poliomyelitis
actors predisposing to venous thrombosis include all except:
Thrombocytopenia
Polycythemia
Dehydration
Thrombophlebitis
Paraproteinemias
All of the following are associated with apoptosis except
Polymyositis
Cancer of lung
Foregut development
Obstructive jaundice
A 5 year old boy recovers from an episode of acute pharyngitis. This can be explained as due to
Bacteria can survive only for few minutes in human body
Neutrophils exhaust their granules contents
Neutrophils cannot sustain cytokines production
Anti-inflammatory molecules are produced in body
Familial adenomatous polyposis, all true except:
May be inherited as an autosomal dominant condition
Is pre-malignant
Occurs in severe ulcerative colitis
May cause electrolyte disturbance
May be asymptomatic
The left breast of a 39-year-old female is slightly enlarged compared with the right. The skin overlying this breast is thickened, reddish-orange, and pitted. Mammography reveals a 3 cm underlying density. A fine-needle aspirate of this mass reveals carcinoma. How is the gross appearance of the breast best explained?
Venous thrombosis
Lymphatic obstruction
Ischemia
Chronic passive congestion
Chronic inflammation
In patients with emphysema due to a1-antitrypsin deficiency, the molecular mechanism responsible for the accumulation of a1-antitrypsin in hepatocytes is Excessive hepatic synthesis of a1-antitrypsin
Retention in the endoplasmic reticulum because of poorly folded a1-antitrypsin
Decreased catabolism of a1-antitrypsin in lysosomes
Inability to metabolize a1-antitrypsin
Impaired dissociation from chaperones

Which of the following statements about auto-immune thrombocytopenic purpura (ITP) in pregnancy is true:
Platelet production is depressed in the bone marrow
Bleeding time may be normal because of the presence of in the circulation of young hyper-active platelets
Peripheral destruction of antibody coated circulating platelets may result in normal platelet levels
Caesarian section always prevents fetal hemorrhage

Concerning urinary sediment which one of the following is correct?
<100 white cells per ml is normal
Cystine crystals are often found in normal urine
Hyaline casts consist of Tamm-Horsfall protein.
Oxalate crystals in the urine suggest renal disease
Red cells always indicate renal tract disease

Commonest type of pancreatic malignancy is:
Ductal adenoca
Insulnita
Adenosquamous ca
Squamous cell ca

Most characteristic lesion in asbestosis is
Pleural plaques
Pleural effusion
Pleural thickening
Pleural calcification
A 22 year old man is hospitalized with fever, shaking chills and widespread cutaneous hemorrhages. He
complains of severe headache and nuchal rigidity is noted on physical examination. Examination of the peripheral blood and CSF reveals gram negative diplococci within the neutrophils. A well known complication of this disorder is hemorrhage into the
Adrenal cortex
Anterior pituitary
Brain stem
Pancreas
Sub-arachnoid space

Raju, a 4-year old boy, presents with history of seizures. On examination there is hypopigmented patch of his face. There is mental retardation also. What is the most likely diagnosis
Pityriasis alba
Von Recklinghausen's disease
Indeterminate Hansen
Tuberous sclerosis

An infant was brought by his mother with complaints of asymptomatic recurrent blistering over occiput, buttocks, and legs and back of 2 months duration.some of the blisters spontaneously healed of their own. Mucosa nails and hair were normal. Most likely diagnosis:
Epidermolysis Bullosa
Pemphigus vulgaris
Miliaria
Neonatal lupus erythematosus

A 15 yr old male has multiple vesicular lesions , present unilaterally over the Upper trunk, lesions are showing severe burning sensation since last night. He is also sleeping on the floor for last few days.most likely diagnoses
Herpes zoster
insect bite reaction
scabies
dermatitis herpetiformis

A mentally retarded child aged 12 yrs has multiple, painless, discharging shiny white Lesions around the anus –likely diagnosis
Lupus vulgaris
Carcinoma
Condyloma lata
Haemorrhoids

Following are risk factors for abdominal aortic aneurysm except

- Family history
- Young age
- Male sex
- Peripheral vascular disease

Which nerve(s) are in least danger of being injured during a mastectomy?

- Thoracodorsal nerve
- Long thoracic nerve
- Intercostobrachial nerve
- Lateral and medial pectoral nerves

A 39-year-old woman is referred to you with increasing symptoms of dysphagia, which started with solids 2 years ago and now has progressed to liquids. She has lost 15 Kg in the past 8 months. In addition, she is awakened at night by a worrisome choking sensation and coughing spells. Occasionally, she feels that her food backs up into her throat. The patient denies fever, chills, and night sweats. Past medical history is significant for asthma and a bleeding stomach ulcer 5 years ago, for which she underwent a resection. Her physical examination is only remarkable for severe halitosis. Auscultation of the lungs reveals no wheezing or rhonchi. The heart tones are normal, with no murmurs. The esophageal manometry identifies an elevated resting pressure and a failure to relax upon swallowing of the lower esophageal sphincter (LES). The most probable diagnosis is

- Carcinoma
- Stricture
- Achalasia
- Diffuse esophageal spasm

The most common indication for nasogastric and nasoenteric intubation is

- Decompression of the stomach or intestine
- Gastric lavage
- evacuation of gastric contents in the initial management of upper GI bleeding or toxic ingestion
- Measurement of gastric secretion, volume, or pH
- following are examples of serosal gastrostomies except
- The Stamm or standard open gastrostomy
- Laparoscopic gastrostomy
- Percutaneous endoscopic gastrostomy (PEG)
- Janeway-type gastrostomy

All are advantages of full thickness grafts except

- Less contracture
- Color/texture match more similar to normal skin
- Potential for growth
- Doesn’t requires well-vascularized bed

All are major phases of ‘take’ of graft except

- Plasmatic imbibition
- Neovascularization -growth of new blood vessels into the graft from the host bed
- Inosculation -anastomosis between graft and host vessels
- Organization
- NOTES cholecystectomy access route include all except
- Trans gastric
- Trans rectal
- Transvaginal
- Transumbilical

All are the common management options for a common bile duct stone detected during laparoscopic cholecystectomy cholangiogram except

- Laparoscopic basket retrieval
- Inject drugs for dissolution of stone
- Postoperative ERCP
- Laparoscopic or open common bile duct exploration.

All are correct statements except

most common agents of biliary sepsis are Escherichia coli and Klebsiella
Portal vein formed by the Superior mesentric vein and splenic Vein sees highly regulated blood flow with its multiple valves.

K-Ras gene is mutated in 90% of pancreatic cancer patients

Estrogen is associated with hepatic adenoma

Most common cause of late failure (24 months and beyond) of reversed saphenous vein grafts?

Atherosclerosis.

Trauma

Thrombophlebitis

Cardiac failure

A patient with a history of radiation exposure as a child was found to have an enlarged lymph node on physical examination. The lymph node is removed, and there is normal-appearing thyroid tissue in the lymph node. What is the diagnosis?

Papillary thyroid carcinoma

Ectopic thyroid tissue

Follicular thyroid carcinoma

Goitre

Best management for a 3 cm calculus in renal pelvis with hydronephrosis

ESWL

PCNL

DJ stenting

Pyelolithotomy

Horseshoe kidneys all except

Fused at lower poles

Isthmus lies at S3 level

Pelvis and ureter anterior

Usually asymptomatic

Main motor supply of urinary bladder comes from

T10-L1

L1-L5

L2,3,4

S2,3,4

Best management of a Neurogenic bladder

Foleys catheter

Silicon indwelling catheter

CIC

Urethral dilatation

Main motor supply of urinary bladder comes from

T10-L1

L1-L5

L2,3,4

S2,3,4

Aberrant renal artery

Should always be divided if it causes pressure effect on ureter

Is more commonly found in males

Always causes hydronephrosis

Usually supplies lower pole

BPH arises from

Transition zone

Peripheral zone

Central zone

Median lobe

Investigation of choice so see obstructive nature of pelvicalyceal dilatation

USG

IVP

Whitekar test

Diuretic renal scan

A patient with BPH with moderate symptoms is best treated by

Wait and watch

Tamsulosin

Finastride

TURP

Which of the following corneal dystrophies is most painful?

Lattice

Posterior Polymorphous

Macular

Reis – Bucklers
The best surgery to correct unilateral severe ptosis:
- Sling on affected eyelids
- Sling on both eyelids
- Everbusch operation
- Blaskowicz operation

The pharmacological test to diagnose Adies pupil is using pilocarpine eye drops in the concentration of:
- 0.1%
- 0.2%
- 1%
- 2%

Which of the following glaucoma medication has hypertrichosis as a prominent side effect in Indian patients?
- Pilocarpine
- Brimonidine
- Latanoprost
- Dorzolamide

Which of the following surgery on muscles would be first considered to correct Right esotropia?
- Right MR recession
- Right LR resection
- Left MR recession
- Left LR resection

Mutton fat Keratic precipitates are a feature of uveitis associated with:
- Ankylosing spondylitis
- Toxoplasmosis
- Vogt Kayanagi Haradas disease
- AID

Which of the following methods of examination is best for detecting an intraocular foreign body in the vitreous with a co-existing total cataract in that eye?
- Magnet
- Indirect Ophthalmoscopy
- Laser Interferometer
- Ultrasound B scan

Verbigeration is
- Repetition of words
- Repetition of sentences
- Repetition of examiner's words
- Repetition beyond the point of relevance

Which of the following is included under Axis-II of DSM-IV?
- Amnestic disorder
- Substance use disorder
- Personality disorder
- Sexual disorder

After heavy intake of cannabis, a 23yr old man developed delusion of reference, persecution and third person auditory hallucinations. All these symptoms subsided within four hours. Most appropriate diagnosis for this patient would be:
- Cannabis induced psychosis
- Paranoid schizophrenia
- Cannabis intoxication
- Brief psychotic disorder

29 yrs old female after being scolded by her boss, started remaining sad. She would ruminate that every boss in this world is a bad person. Which cognitive error this lady has developed?
- Selective abstraction
- Personalization
- Overgeneralization
- Arbitrary inference

All of the following are the Piaget’s stages of intellectual development except:
- Stage of sensorimotor development
- Stage of concrete operation
- Stage of formal operation
- Stage of integrity development

All of the following are the objective measures of personality assessment except:
- Minnesota-Multiphasic personality inventory
- 16 personality factor questionnaire
- Eysenck personality questionnaire
- Sentence completion test
All of the following are the types of degenerative dementia except
- Pick's disease
- Parkinson's disease
- Progressive supranuclear palsy
- Normal pressure hydrocephalus

All of the following are the features of pseudoseizure except
- Nocturnal seizures are uncommon
- Stereotyped aura is not seen
- Affected by suggestion
- Self injury is common

National trust is not for the benefit of children with
- Dyslexia
- Autism
- Cerebral palsy
- Mental retardation

Auto-Inhibition is a phenomenon seen with the use of
- Lithium
- Carbamazepine
- Paroxetine
- Clozapine

35 years old woman presented with history of polyuria & polydipsia. 24 hours urine output is 4 litres & urine osmolality is 170 mosm/kg. Which of following is the least likely diagnosis?
- Pituitary Diabetes Insipidus
- Nephrogenic Diabetes Insipidus
- Primary Polydipsia
- Diabetes mellitus

Which of the following hormone deficiency occurs last in a patient with hypopituitarism?
- Growth Hormone
- ACTH
- FSH
- TSH

Which of the following is not useful in a patient with acromegaly?
- Cabergoline
- Pegvisomant
- Lanreotide
- Conivaptan

Which of the following is a short acting insulin?
- Insulin Detemir
- Insulin Glulisne
- Insulin Glargine
- NPH Insulin

25 years old man who was on insulin therapy for the 10 years stops taking insulin. 2 days later he is brought to medical emergency with severe pain abdomen & vomiting. He is dehydrated & has a fruity smell on breath. Which of the following is not an appropriate step in his management?

Blood glucose estimation
- IV infusion of Normal Saline
- Regular Insulin10 units subcutaneously
- Urine ketones measurement

Liraglutide is useful in which of the following disorder?
- Diabetes Insipidus
- SIADH
- Type 2 Diabetes Mellitus
- Type 1 Diabetes Mellitus

Which of the following is not useful in a patient of Myxedema coma?
- L-Thyroxine
- Saturated Solution of Potassium Iodide
- Hydrocortisone
- IV Tri-iodothyronine

Radio-active iodine therapy is given in which of the following thyroid malignancy?
- Follicular carcinoma
- Lymphoma
- Anaplastic carcinoma
- Medullary carcinoma

Jod Basedow effect is seen as a result of exposure to which of the following?
- Selenium
Iron
Iodine
Aluminium

Primary dentition is complete by:
One & half years
Two & half years
Three & half years
Four & half years

As per the Railway Act, child is not punishable up to
2 years
5 years
7 years
12 years

Entry wound shot from 40-60 cm is characterized by
Abrasion collar
Abrasion rim
Tattooing
Cruciate appearance
Death occurs faster in
Fresh water drowning
Salt water drowning
Near drowning
Warm water drowning

Bullet that fragments on impact is called
Duplex bullet
Dum dum bullet
Frangible bullet
Soft point bullet

If twitch duration is 10 ms, then summation of contraction will occur at frequency greater than
10 Hz
100 Hz
1,000 Hz
10,000 Hz

All are true about pressure diuresis mechanisms of kidney except
It can determine the long term set point

Patient present with spiral fracture of the lower third of the humerus. On closed manipulation, he develops signs of radial nerve palsy. This is called-
Allis sign
Galeazzi sign
Thurston-Holland sign
Holstein – levis sign

Treatment of choice in 65 yr old female with impacted # neck of humerus is
Triangular sling
Arm chest strapping
Arthroplasty

In a new born child, abduction & internal rotation produces a click sound. It is known as
Ortolani sign
Telescopign sign
Mc Murray’s sign
Lac man’s sign

Raised anterior superior iliac spine in adduction deformity of hip can be leveled by
Tilting the pelvis
Abducting the normal limb
Adducting the normal limb
Adducting the affected limb

Standing on one leg in sun
It can be demonstrated in isolated kidney

Its feedback gain in infinite

It is important in day to day BP regulation

Point at which respiration can not be inhibited voluntarily is called

Saturation point

Breaking point

Herring breuer reflex

Breath holding time

Sudden loud sound produces more damage than prolonged loud sound because

Basilar fibers are more sensitive to sudden sound

Sudden sound carries more energy

There is a latent period before activation reflex can occur

Pressure rise in endolymph is much more during sudden loud sound

Damage to which area of cerebral cortex is likely to cause the greatest degree of loss of intellectual capabilities in right handed person

Frontal lobe

Left posterior superior temporal gyrus

Right posterior superior temporal gyrus

Left sensory association area

Right sensory association area

True about Nasopharyngeal carcinoma is all except

Bimodal age distribution

Nasopharyngectomy with BL neck dissection is treatment of choice

EBV is implicated as etiological agent

Squamous cell carcinoma is most common histopathological type

Which of the following statements regarding epistaxis is untrue:

Anterior epistaxis is more common.

Woodruff’s plexus appear to originate from posterior pharyngeal wall and venous in origin.

In young persons venous bleeding is more common.

Posterior epistaxis usually occur after 40 yrs.

A 70 years old male presented with conductive deafness in left ear. His left tympanic membrane appears dull. On examination he has 3 cm enlarged cervical lymph node. On tympanometry, type B tympanogram is seen. Which of the following is most likely diagnosis?

Nasopharyngeal carcinoma

Tuberculosis

CP angle tumor

CSOM

Which of the following is true about branchial anomaly
It is mostly due to second branchial system anomaly
Branchial sinus excision is not always indicated
Cyst is more common than sinus
None of the above.

6 year old child with recurrent URTI with mouth breathing and failure to grow with high arched palate and impaired hearing is:

Tonsillectomy

Grommet insertion

Myringotomy with grommet insertion

Adenoidectomy with grommet insertion

A patient of type I DM presented with acute gastroenteritis, ABG shows pH = 7.28, PCO2 = 70mmHg and HCO3 = 36, the condition is:

Respiratory acidosis with metabolic alkalosis

Respiratory acidosis with metabolic acidosis

Respiratory acidosis with metabolic alkalosis

Respiratory alkalosis with metabolic acidosis

For the detection of AFB in sputum, the minimum concentration of bacilli in the sputum should be:

100/ml

50000 / ml
A patient of chronic left lung abscess with generalized edema, hypoproteinemia, hepatosplenomegaly without renal failure but "urine, diagnosis is Amyloidosis

Ca Lung

Bronchiectasis

Chronic cor pulmonale

Investigations performed in an admitted patient reveal the following Blood Glucose 108 mg/dl; Blood Urea nitrogen 56 mg/dl; Serum Na+ 140meq/L; Serum K+ 5.5 meq/l calculate the plasma osmolality of this patient?

309 mOsm/Kg
299 mOsm/Kg
327 mOsm/Kg
317 mOsm/Kg

A 45 year old coal mine worker presents with cutaneous nodules, joint pain and occasional cough with dyspnea. His CXR shows multiple small (1-4 cm) nodules in bilateral lung fields. Some of the nodules show cavitation and specks of calcification. Most likely these features are diagnostic of:

Sjogren’s syndrome

Caplan’s syndrome

Silicosis

Wegener’s granulomatosis

A 20 year old woman presents with bilateral conductive deafness and hemoptysis. CXR shows a thin-walled cavity in the LLZ. Investigations reveal TLC 14000/mm3, red cell casts in urine and serum creatinine 3mg%. what is the most probable diagnosis?

Henoch Schonlein purpura

PAN

Wegener’s granulomatosis

Disseminated TB

HIV associated nephropathy is commonly a type of:

Membranous glomerulonephritis.

Immunotactoid glomerulopathy.

Focal segmental glomerulosclerosis.

Fibrillary glomerulopathy

Which of the following is not true regarding MAC?

Usually occurs in patients with CD4+ < 50

Most commonly presents with fever and weight loss

MC finding on CXR is b/l lower lobe miliary shadows

Prior infection with M. tuberculosis increases risk of MAC

In your workup of a 50-year old male with anemia, you are asked to order tests for vitamin B12 and folate. What is the most important reason for ordering the tests for these nutrients simultaneously?

They are both absorbed similarly.

Therapy for one also treats the other.

The peripheral blood smear appears the same for both Aplastic anemia may result from lack of either.

Neurologic injury must be avoided

Tumor lysis syndrome is least likely to occur in:

Burkitt’s lymphoma

Lymphoblastic lymphoma

Follicular lymphoma

Diffuse large B cell lymphoma

The best markers to detect B-All cells after treatment will be

CD13, CD 33, CD 117

CD19, CD 10, CD 34

CD3, CD 7, CD 34

CD11c, 25, 103

RCUD (Refractory cytopenia with unilineage dysplasia) includes all except:

Refractory anemia

Refractory neutropenia

Refractory thrombocytopenia

Refractory pancytopenia

All are major criteria for diagnosing multiple myeloma except:

Plasmacytoma

Hypogammaglobulinemia

BM Plasma cells >30%
Bence Jones proteinuria > 1g/day

Which of the following is not involved in pathogenesis of SLE

Estradiol

EBV

UV – light

HCA – B 27

A 2-year old child with seborrhic rash over trunk & scalp. O/E hepatosplenomegaly lymph nodes. & osteolytic bone lesion. On biopsy cell are S-100 & CD 1a. E/M is likely to show

Dense core cytoplasmic granules

Elongated & distended lysosome, with lipids in stacks of bilayer

Zebra bodies

Bierbeck granule

A 22-year-old male with respiratory distress, due to a lymphoma involving mediastinum. The malignant lymphocytes, will show cell markers, characteristic of

B Lymphocytes

T lymphocytes

Macrophages

Langerhans cells

Most common lymphoma to complicate rheumatoid arthritis is

Diffuse large B cell lymphoma

Follicular centre cell NHL

Peripheral T cell NHL

Mantle zone NHL

A 23 year woman, with myalgia, pleural effusion and arthralgia, without joint deformity over course of several years. The best lab screening test to diagnose her disease will be

Lymphocyte count

ESR

ANA

Anti CCP

Which of the following statements is true regarding DKA?

Insulin infusion to be stopped as soon as blood glucose approaches 250 mg/dl irrespective of acidosis

Persistent ketonuria indicates poor response to therapy

After initiating insulin infusion, hyperkalemia is commonly observed

During DKA, b-hydroxybutyrate : acetate is in the ratio of 8 : 1 as compared to 3 : 1 in normal subjects

All of the following are characteristic features of tricuspid atresia except

Left axis deviation

Rt ventricular hypoplasia

Diminished pulmonary vascularity

Splitting of S2

An 11 month old child is brought to the emergency with c/o high grade fever since morning & 1 episode of GTCS. On examination, he is febrile with discharge from left auditory canal with no other focal deficits. What would be your next step?

Start local treatment with ear drops immediately

Perform LP & decide accordingly

Order for a neuroimaging immediately to look for cause of drowsiness & seizures

All of the above

All of the following neoplasms are commonly seen in HIV positive children except

Non hodgkin’s lymphoma

Leiomyosarcoma

Kaposi sarcoma

Primary CNS lymphoma

A 5 day old full term male infant was severely cyanotic at birth. PG E infusion was started initially & later balloon atrial septostomy was done which showed improvement in oxygenation. The most likely diagnosis of this infant is

TOF

TGA

Truncus arteriosus

Tricuspid atresia

Which of the following statements is false regarding HIV infection?

The incubation period of HIV-1 infection in children is generally shorter after perinatal infection compared to adult HIV-1 infection
Children who are considered infected in utero with HIV usually have extremely slow progression of disease.

CNS involvement by HIV is more common in pediatric patients as compared to adults.

Kaposi sarcoma is rare manifestation of HIV infection in children.

Ampholytes are used in:

- SDS PAGE
- IEF
- Immune electrophoresis
- 2 D PAGE

Correct Answer: 2

Explanation: Isoelectric focusing is an Electrophoretic method to separate proteins on the basis of their pI. For this a mixture of ampholytes is run in the gel to create a pH gradient followed by the run of mixture of protein to be separated. Every protein will have a zero net charge at its pI and will not move in the electric field. Each protein will move to the place having its pI and thus get separated according to its pI. SDS PAGE separates proteins purely on the basis of size. It uses molecular markers for this purpose Immune electrophoresis is a general name for a number of biochemical methods for separation and characterization of proteins based on electrophoresis and reaction with antibodies. All variants of immune electrophoresis require immunoglobulin, also known as antibodies reacting with the proteins to be separated or characterized. Two-dimensional gel electrophoresis, abbreviated as 2-DE or 2-D electrophoresis, is a form of gel electrophoresis commonly used to analyze proteins. Mixtures of proteins are separated by two properties in two dimensions on 2D gels.

There is a mixture of 5 proteins with pI of 3, 3.6, 4, 4.4 and 5 respectively. What should be the pH of buffer if these proteins have to be separated on gel electrophoresis?

- 4
- 3.6
- 4.4
- More than 5

Correct Answer: 4

Explanation: pI is that pH at which the net charge on the molecule, be it protein or amino acid, is zero. At pH below its pI the protein or amino acid is protonated and hence positively charged. At pH above its pI the molecule is deprotonated and hence negatively charged. In electrophoresis the pH of the medium should be higher than the pI so that the proteins are negatively charged and move to the anode.

Microarray analysis is useful in all EXCEPT:

- Genotyping
- Cancer marker
- Diagnosis of point mutations
- Expression analysis

Correct Answer: 3

Explanation: In Microarray analysis there are thousands of immobilized DNA sequences on a microscope slide or chip. A sample of DNA or RNA is applied on the chip. Hybridization results in development of color or fluorescent spot. This is helpful in determining the presence of gene variations or mutations (genotyping), or to determine the patterns of mRNA production (gene expression analysis), analyzing thousands of genes at the same time. For genotyping analysis, the cellular sample is genomic DNA. For expression analysis, the entire population of mRNA molecules from a particular cell type is converted to cDNA and labeled with a fluorescent tag. This mixture is then exposed to a gene chip, which is a glass slide or membrane containing thousands of tiny spots of DNA, each corresponding to a different gene. The amount of fluorescence bound to each spot is a measure of the amount of that particular mRNA in the sample. DNA microarrays are often used to determine the differing patterns of gene expression in two different types of cell—for example, normal and cancer cells.

Hybridization technique is useful in all EXCEPT:

- Southern blotting
- Northern blotting
- Western blotting
- Microarray analysis

Correct Answer: 3

Explanation: Hybridization means annealing of DNA to DNA or DNA to RNA based on the Watson crick base pairing rules i.e. Adenine always base pairs with thymine and guanine always base pairs with cytosine. For detection of a specific sequence of DNA or RNA this phenomenon is very useful. In southern blotting a specific cDNA or RNA oligonucleotide probe will
hybridize with a specific DNA sequence. In northern blotting a specific cDNA oligonucleotide probe will hybridize with a specific RNA sequence. In microarray analysis thousands of DNA sequences of RNA sequences are detected by hybridization on a microchip with thousands of immobilized oligonucleotide sequences. Western blotting is for analysis of proteins and hence hybridization has no role.

Which of the following techniques is NOT useful in detection of carrier of point mutation?

- PCR analysis
- ASO probe analysis
- RFLP analysis
- DNA sequencing

Correct Answer : 1

Explanation : A point mutation can be detected by DNA sequencing. It can also be detected by using a synthetic allele specific oligonucleotide probe which is complimentary to the sequence where mutation is likely. RFLP analysis can detect a point mutation if the mutation results in generation or abolition of restriction site changing the length of restriction fragment. PCR analysis is only for amplification of a specific DNA sequence.

PCR is useful in all EXCEPT:

- Diagnosis of infectious diseases
- DNA fingerprinting
- Prenatal diagnosis of Cystic Fibrosis
- Commercial production of insulin

Correct Answer : 4

Explanation : PCR is a technique of amplification of a desired sequence of DNA in a short span of time. This amplified sequence is then analyzed by southern blotting to finally come to a conclusion. It is useful in amplifying and analyzing single nucleotide polymorphisms (SNP) using specific primers and helps in DNA fingerprinting. It can be useful in diagnosing infectious diseases by Amplifying and analyzing DNA of causative agent. It is also useful in prenatal diagnosis of cystic fibrosis Cystic fibrosis is an autosomal recessive genetic disease resulting from mutations in the cystic fibrosis transmembrane conductance regulator (CFTR) gene. The most common mutation is a three-base deletion that results in the loss of a phenylalanine residue from the CFTR protein. Because the mutant allele is three bases shorter than the normal allele, it is possible to distinguish them from each other by the size of the PCR products obtained by amplifying that portion of the DNA.

Which of the following is WRONG regarding decarboxylation of an amino acid to its amine:

- histidine to histamine
- DOPA to Dopamine
- 5 hydroxytryptophan to serotonine
- Glutamate to glutamine

Correct Answer : 4

Explanation : Amino acids are converted to their respective amine forms by decarboxylation e.g. Histidine ? Histamine Tyrosine ? Tyramine Tryptophan? Tryptamine 5 – Hydroxy Tryptophan ? 5 – Hydroxy Tryptamine (Serotonine) DOPA ? Dopamine Glutamate ? GABA Glutamine is not amine, its Amide form of Glutamate.

Aspirin:

- Increases the Km and decreases the Vmax of cyclooxygenase
- decreases the Km and increases the Vmax of cyclooxygenase
- Increases the Km and does not affect the Vmax of cyclooxygenase
- Does not affect the Km and decreases the Vmax of cyclooxygenase

Correct Answer : 4

Explanation : Aspirin is a non competitive irreversible inhibitor of cyclo-oxygenase. Hence it has no effect on Km but decreases the Vmax.

Which of the following increases the level of metabolic acids in human body?

- Thiamine deficiency
- Pyridoxine deficiency
- Methyl cobalamine deficiency
Biotin deficiency

Correct Answer : 3

Explanation : Thiamine deficiency results in lactic acidosis, pyridoxine deficiency causes xanthurenic aciduria and biotin deficiency causes propionic acidemia. All these increase the metabolic acid levels. Methylcobalamin deficiency causes homocysteinuria which is not a metabolic acid. However Adenosylcobalamin deficiency causes methyl malonic aciduria which is a metabolic acid.

Most electronegative component of respiratory chain is:

NADH: Ubiquinone oxidoreductase
Succinate : Ubiquinone reductase
Ubiquinone: Cytochrome C oxidoreducatse
Cytochrome C oxidase

Correct Answer : 1

Explanation : Respiratory chain components are arranged in an order of increasing redox potential from electronegative to electropositive so that electron moves in a particular direction. Complex I: NADH Dehydrogenase (NADH – Q oxidoreductase) (most electronegative) Complex II: Succinate Dehydrogenase (Succinate – Q reductase) Complex III: Q cytochrome c oxidoreductase Complex IV: cytochrome c oxidase (most electropositive)