

# Platinum Plus Q-Bank

for NEET PG, INICET, FMGE Exams



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# RADIOLOGY

**Q 1.** A Radiologist describes "Molten wax or Candle Dripping Wax Appearance" in radiographs. It is seen in

(a) Melorheostosis      (b) Metastasis  
 (c) Myeloma              (d) Meningioma

**Ans: (a) Melorheostosis**

"Molten wax or Candle Dripping Wax Appearance" in radiographs is seen in Melorheostosis.

**Melorheostosis:**

- Melorheostosis is characterized by cortical widening of bones.
- It is usually monostotic (affecting one limb).
- Head and face are spared.
- Pain in bones, physical deformity, contractures, and functional and circulatory impairment are seen.
- Melorheostosis is associated with osteosclerosis.
- Melorheostosis is benign dysplasia.
- "Molten wax" or "Candle Dripping Wax" appearance in radiographs is seen in Melorheostosis.

**Q 2.** Radiotherapy is the treatment of choice in:

(a) Ewing's sarcoma      (b) Osteosarcoma  
 (c) Osteoclastoma          (d) Synovial sarcoma

**Ans: (a) Ewing's sarcoma**

Ewings sarcoma is believed to arise from Endothelial cells in the bone marrow.

It appears predominantly in mid-diaphysis.

Prognosis is poor and surgery alone is not of much help. Radiotherapy has a dramatic effect on the tumor but overall survival is not much enhanced.

Chemotherapy is much more effective. The best results are seen by combination therapy.

**Q 3.** An MBBS Graduate is asked about Tissue which is not highly sensitive to the effects of radiation. The Correct answer would be:

(a) Bone Marrow      (b) Testis  
 (c) Ovary              (d) Pancreas

**Ans: (d) Pancreas**

Pancreatic tissue and Pancreatic Tumours are resistant to radiation effects.

**Highly Resistant tumours are:**

- Hepatoma
- Pancreatic cancer
- Osteosarcoma
- Melanoma

**Q 4.** All EXCEPT following active substance is used in PET SCAN?

(a) Technicium<sup>99</sup> MDP  
 (b) Technicium<sup>99</sup> Peritechnate

# OPHTHALMOLOGY

**Q 1.** A 1.5 years old child presents to the ophthalmologist, presence of white eye reflex USG findings shows intraocular mass with calcification and family history suggests that his father had the same and undergone Enucleation of one eye. What is the probable diagnosis?

- Retinoblastoma
- Exudative Retinal Detachment
- Pediatric Tuberculosis
- Retinopathy of Prematurity

**Ans: (a) Retinoblastoma**

- This child has white eye reflex, presents as a calcified intraocular mass and positive family history. A very dreaded condition. This is undoubtedly Retinoblastoma.
- Approximately 40% of cases, retinoblastoma occurs in individuals who inherit a germline mutation of one RB allele.
- Retinoblastoma is the most common intraocular tumor of childhood. It is a highly malignant tumor, which, if untreated, leads almost invariably to death because of liver and brain metastases.
- Other presentations of retinoblastoma include strabismus, decreased vision, ocular inflammation, eye pain, glaucoma, and orbital cellulitis. Diagnosis is made by clinical findings in the presence of calcifications on US or CT scan.

- Retinoblastoma arises when the retinal progenitor suffers a second, somatic mutation and the RB gene function is lost. In the sporadic cases, both RB alleles are lost by somatic mutations.
- Retinoblastomas arising in the context of germline mutations are often bilateral. In addition, they may be associated with pinealoblastoma ("trilateral" retinoblastoma), which is associated with a dismal outcome. Focal zones of dystrophic calcification are characteristic of retinoblastoma.

**Q 2.** An Ophthalmologist talks about a 72 year old patient with characteristic yellow deposits in the macula called drusen. The most likely conditions associated with the person is:

- Macular Degeneration
- Posterior capsular opacification
- Central Serous Retinopathy
- Scotoma

**Ans: (a) Macular Degeneration**

- They present with progressive and bilateral loss of central vision.
- Peripheral fields and hence navigational vision are always maintained, though they may become impaired by the onset of cataract.
- Disease usually results from degeneration and atrophy of the outer retina, retinal pigment epithelium, Bruch's membrane and chorio capillaries.

# PSYCHIATRY

**Q 1.** A Neuropsychiatrist comes across a rare case of a patient having an Obnoxious Smell and Olfactory hallucination. They are seen in lesions of:

(a) Temporal lobe      (b) Frontal lobe  
 (c) Parietal lobe      (d) Occipital lobe

**Ans: (a) Temporal lobe**

Temporal Lobe seizure features include:

- Auditory hallucinations
- Atypical dream-like events
- Depersonalization
- Blanking out spells
- Dazed feelings
- Olfactory, gustatory, visual and tactile hallucinations can occur.

**Q 2.** An MBBS Student is evaluating the main causes of Suicide. The Risk factors for suicide in depression are all EXCEPT:

(a) Female sex  
 (b) Positive family history  
 (c) A child with conduct disorder  
 (d) Elderly male

**Ans: (a) Female sex**

Risk factors for suicide in depression are

- Positive family history
- Mood disorders, personality disorders, psychosis, hypochondriasis.
- A child with conduct disorder.
- Elderly male
- Unemployed
- Single
- Divorced
- Chronically ill
- Widowed
- Recently bereaved.

**Q 3.** A Patient believes that his feelings and thoughts are being influenced by an external agency, the most likely diagnosis is:

(a) Delusion of nihilism  
 (b) Delusion of reference  
 (c) Delusion of Influence  
 (d) Othello syndrome

**Ans: (c) Influence**

**Delusions of Influence:** A patient here believes that His thought, feelings and actions are being influenced and controlled by some outside agencies.

**Delusion:** Delusion is a false belief in something which is not a fact, and which persists even after its

# DERMATOLOGY

**Q 1. A Patient suffered from garden injury over the finger and presented to the hospital with multiple reddish streaks extending from forearm to the arm. What can be the likely route of spread of infection?**

(a) Lymphangitis      (b) Abscess  
(c) Folliculitis      (d) Cellulitis

**Ans: (a) Lymphangitis**

The clinical condition is sporotrichosis.

A Prick to a person working in garden from a plant with inoculation and collection of thermophilically dimorphic fungi would indicate infection with Sporotrichosis.

Lymphangitis is an important feature:

- P: Plant
- P: Prick
- P: Primary Inoculation Site

### ***Sporothrix schenckii***

- Causes Sporothrichosis.
- Characteristics of *Sporothrix schenckii* are: Thermally dimorphic. Prick from a plant with inoculation leads to Sporotrichosis.
- Culture on Sabouraud's agar shows typical morphology.
- Habitat is soil or vegetation.
- Laboratory diagnosis of *sporothrix schenckii* is cigar-shaped budding yeasts visible in pus.
- Mold in the soil, yeast in the body at 37°C.

Q 2. A 45-year-old patient presents with an itchy, flat-topped, polygonal, violaceous papules on the inner wrists and flexor surfaces of the forearms. The lesions have a characteristic shiny surface and are arranged in a linear pattern. The patient denies any recent medication treatment?

- (a) Topical steroids
- (b) Dapsone
- (c) Antifungal
- (d) Systemic steroid

**Ans: (a) Steroids**

First and foremost a student has to identify the dermatological condition. This clinical example is of Lichen Planus. The Drug used most commonly for manifestations are the Steroids.

Lichen Planus is a moderately pruritic, inflammatory condition of the skin characterized by papules. These papules are flat topped, polygonal in configuration with a slight purple hue.

Lichen Planus is characterized by (PPPP):

- Papules
- Polygonal in configuration
- Purple
- Pruritic

It is an inflammatory condition of the skin.

Q 3. Acne Vulgaris is a common Entity. Females are affected commonly. The Causation of Acne is by:

# ANESTHESIA

**Q 1.** A 33-year-old previously normal person with acute pancreatitis has dyspnea and values: of  $pO_2$ : 35 mmHg,  $pO_2/FIO_2$  ratio: 178, and PCWP of 16 mmHg. His Recent CXR in the ICU Reveals Bilateral pulmonary infiltrates. Most Likely cause is:

- (a) ARDS
- (b) Pulmonary Embolism
- (c) Asthma
- (d) COPD

**Ans: (a) ARDS**

#### How to Arrive at the Diagnosis of ARDS

- Exclusion of underlying cardiac and chronic pulmonary disease.
- Dyspnea and respiratory rate > 35/minute.
- $pO_2 < 50$  mmHg.
- Increased dead space.
- Decreased lung compliance (<0.5 L/cm  $H_2O$ ).
- $pO_2$  (arterial oxygen)/ $FIO_2$  (delivered oxygen concentration) ratio:
  - ❖ Normal is > 400.
  - ❖ It is said to be Acute Lung Injury (ALI) if this ratio is <300 and ARDS if it is <200.
- PAOP (PCWP) < 18 mmHg in contrast to cardiogenic pulmonary edema where PCWP is > 25 mmHg.

Lignocaine with adrenaline should not be used for:

- Hyperthyroid patient

- Intravenous regional anesthesia (Bier's block).
- Myocardial ischemic patients.
- Ring block of fingers, toes, penis, pinna (absolute contraindication).
- Severe hypertensives.
- When an inhalational agent (halothane) which sensitizes the myocardium to adrenaline is used.

**Q 2.** Which statement about cardiotoxicity of anesthetics is correct?

- (a) Levobupivacaine is less cardiotoxic than Bupivacaine.
- (b) Levobupivacaine is more cardiotoxic than Bupivacaine.
- (c) Levobupivacaine is equally as cardiotoxic as Bupivacaine.
- (d) Both Levobupivacaine and Bupivacaine are non-cardiotoxic.

**Ans: (a) Levobupivacaine is less cardiotoxic than Bupivacaine**

**Levobupivacaine:** The high cardiotoxicity of bupivacaine led to the development of Levo bupivacaine which is the only S isomer of bupivacaine. Since it does not contain R isomer therefore cardiotoxicity of levo bupivacaine is lesser than bupivacaine.

# OBSTETRICS AND GYNECOLOGY

**Q 1.** A 23 year old female has Dysmenorrhea. All are used in treating dysmenorrhoea, except:

- (a) Bromocriptine
- (b) Ibuprofen
- (c) Mefenamic acid
- (d) Norethisterone and ethynodiol

**Ans: (a) Bromocriptine**

**Drugs used in treatment of Dysmenorrhea are:**

- Prostaglandin synthetase inhibitors: Mefenamic acid, Flufenamic acid, Ibuprofen, Naproxen, Indomethacin.
- Oral Contraceptives (Dydrogesterone).

**Q 2.** Ovarian cancers with DNA mismatch repair genes located on chromosome 2 and 3 are implicated in:

(a) FAP	(b) HNPCC
(c) Gastric cancer	(d) None of the above

**Ans: (b) HNPCC**

Hereditary non-polyposis colorectal cancer (HNPCC)

This is a dominantly inherited disorder of DNA mismatch repair genes located on chromosome 2 and 3. Malignancies such as those affecting the colon, breast, ovary and endometrium occur at a young age. Relatives of affected patients require genetic counseling and cancer screening.

**Q 3.** Bandl's ring is seen in all EXCEPT following conditions:

- (a) Undilated Cervix
- (b) Premature rupture of membranes
- (c) Obstructed labour
- (d) Injudicious use of oxytocic

**Ans: (c) Obstructed labour**

Obstructed labour is one where in spite of good uterine contractions, progressive descent of presenting part is arrested due to mechanical obstruction.

A circular groove encircling the uterus is formed between the active upper segment and distended lower segment called pathological ring or Bandl's Ring.

**Q 4.** What is the correct sequence of Lactation?

- (a) Mammogenesis – lactogenesis – galactokinesis – galactopoiesis
- (b) Mammogenesis – lactogenesis – galactopoiesis – galactokinesis
- (c) Lactogenesis – mammogenesis - galactopoiesis – galactokinesis
- (d) Galactokinesis - mammogenesis – lactogenesis – galactopoiesis

**Ans: (a) Mammogenesis, Lactogenesis Galactokinesis, Galactopoiesis**

# ORTHOPEDICS

**Q 1.** A 44-year-old Football Player had a lower limb injury about the Knee joint. The Attending Clinician said that he has Lachman sign positive. This implicates Injury to:

- (a) Anterior cruciate ligament injury
- (b) Posterior cruciate ligament injury
- (c) Medial meniscus injury
- (d) Lateral meniscus

**Ans: (a) Anterior cruciate ligament injury**

Routine tests for cruciate ligament stability are based on examining for abnormal gliding movements. Anterior drawer and posterior drawer test for anterior and posterior cruciate ligaments. More sensitive is the Lachman's Test.

**Q 2.** A 3-year-old deaf child has increased fragility of bones with increased laxity of joints. The basic Defect is in Type 1 Collagen. Most Likely Condition is:

- (a) Hyperparathyroidism
- (b) Osteogenesis imperfecta
- (c) Eosinophilic granuloma
- (d) Caffey's disease

**Ans: (b) Osteogenesis imperfecta**

Osteogenesis Imperfecta is a hereditary condition characterized by fragility of bones, deafness, blue

sclera, laxity of joints and a tendency to improve with age.

Studies of collagen synthesized by cultured skin fibroblasts show a reduction in type I procollagen synthesis. It is a disease of the mesodermal tissues with deposition of normal collagen in bone, skin, sclera and dentine. Other deformities, such as genu valgum and flat feet with metatarsus varus, are also common. About 20% of affected adults have progressive kyphoscoliosis, which may be severe.

**Q 3.** A 77-year-old female who was a smoker with asthma and bone pains had multiple fractures with ordinary trauma. On bone densitometry, Results demonstrated bone mass decreased more than two standard deviations below the mean for her age in her vertebrae and femur. The most likely cause is

- (a) Osteoporosis
- (b) Osteopetrosis
- (c) Myeloma
- (d) Melorheostosis

**Ans: (a) Osteoporosis**

Bone mineral density (BMD) measurement is widely used in identifying patients with osteoporosis. Quantitative computed tomography (QCT) and Quantitative ultra-sonometry (QUS). Bone mass decreased more than two standard deviations below the mean for age in vertebrae and femur is indicative of Osteoporosis. This lady has Clues as well (Smoker as well as might be on Long-term Steroids for Asthma).

# SURGERY

**Q 1.** All of the following are seen in Refeeding syndrome except?

- (a) Hypophosphatemia
- (b) Hypokalemia
- (c) Hyperkalemia
- (d) Hypocalcemia

**Ans: (c) Hyperkalemia**

**Refeeding Syndrome:**

- It is a potentially fatal condition caused by rapid initiation of feeding after a period of under nutrition. The metabolic changes observed in Refeeding Syndrome are different than those in normal fed state state.
- Profound changes are seen in electrolytes. There is:
  - ❖ Hypophosphatemia
  - ❖ Hypokalemia not Hyperkalemia
  - ❖ Vitamin B1 Deficiency
  - ❖ Hyperglycemia

**Q 2.** A Patient is diagnosed with Squamous cell carcinoma not involving the lymph nodes, what is the next line of management?

- (a) Radiotherapy
- (b) Wide local excision with flap repair
- (c) Wide local excision with frozen border
- (d) Skin grafting

**Ans: (c) Wide Local Excision with Clearance margin**

The Examiner is talking about SCC of Skin.

Surgical excision determines histopathology. The margins are excised and a 4 mm clearance in lesions less than 2 cm is taken and in tumours greater than 2 cm wider margin excision is done.

#### EXTRA EDGE:

**Squamous Cell Carcinoma (SCC)**

- It is also known as epidermoid carcinoma.
- It originates from Prickle cell layer.
- Edge of ulcer is raised and everted with indurated base.
- First site of metastasis is regional lymphnode.
- Main presenting symptom of SCC is nodule or ulcer.
- Most common causative factor is sunlight.
- Most common site is ears, cheeks, lower lip and back of hand.
- Most common type of SCC is ulcerative type.

**Q 3.** Patient after road traffic accident was brought to the emergency. His pulse rate was 50 beats per minute; Blood pressure was 80/60 mm of Hg. On evaluation his ECG was normal, Fast USG was negative and chest X-Ray was normal. This status of patient could be best classified under which type of shock?

- (a) Hemorrhagic shock
- (b) Cardiogenic shock

# PEDIATRICS

**Q 1.** A 12 year old who was previously well has been having vomiting associated with abdominal pain after taking some food eight hours back. There is no previous medical history of any significant drug intake. Investigations reveal FBC: Hb 13.7 g/dL, WCC  $12 \times 10^9/l$ , Platelets  $400 \times 10^9/l$ ; U&Es:  $\text{Na}^+ 135 \text{ mmol/l}$ ,  $\text{K}^+ 3.4 \text{ mmol/l}$ , urea 7.5 mmol/l, Cr 72  $\mu\text{mol/l}$ . Most likely cause is:

(a) *Bacillus anthracis*      (b) *Bacillus cereus*  
 (c) *Staph aureus*      (d) *Salmonella*

**Ans: (c) *Staph aureus***

*Staph aureus* Causes Food poisoning. The typical history is short ie within 12 hours and is generally associated with crampy abdominal pain. A preformed Toxin is responsible.

**Q 2.** A two month-old male infant is brought to you by his parents complaining that, for the past four weeks, he has been progressively lethargic, feeds poorly, tires easily and has increasing pallor. On examination, you note pallor of the mucous membranes and conjunctivae. He is mildly tachycardic. The child has triphalangeal thumbs. Lab tests show:

Hb \_\_\_\_\_ 7 g/dL  
 Ht \_\_\_\_\_ 32%  
 MCV \_\_\_\_\_ 100 fL

Platelets \_\_\_\_\_ 310,000/cmm

WBCs \_\_\_\_\_ 11,000/cmm

Reticulocytes \_\_\_\_\_ 0.4%

Bilirubin direct \_\_\_\_\_ 0.1 mg/dL

Bilirubin total \_\_\_\_\_ 1.0 mg/dL

All EXCEPT following is the most likely diagnosis?

(a) SCID  
 (b) PRCA  
 (c) Fanconi's anemia  
 (d) Diamond-Blackfan anemia

**Ans: (d) Diamond-Blackfan anemia**

This is a case of Diamond-Blackfan anemia. A macrocytic anemia with low reticulocyte count, in association with the congenital anomalies described, point to Diamond-Blackfan syndrome (DBS), also called congenital hypoplastic anemia. It is not a common entity.

**Q 3.** A child has Ataxia with Mental Retardation. He is Diagnosed with Angelman's syndrome. This Syndrome is due to Genetic Alteration of:

(a) Translocation  
 (b) Microdeletion  
 (c) Robertsonian Translocation  
 (d) Polymorphism

# MEDICINE

**Q 1.** A 34-year-old has Hematuria. Investigations reveal Microscopic Hematuria and Deposits of IgG along the alveolar basement membranes and the glomerular basement membranes. This feature is seen in:

- (a) Loffler's Syndrome
- (b) Heiner syndrome
- (c) VHL Syndrome
- (d) Goodpasture syndrome

**Ans: (d) Goodpasture syndrome**

Goodpasture's syndrome is characterized by Pulmonary and Renal involvement. Pulmonary disease manifests as pulmonary hemorrhage. Renal disease manifests as glomerulonephritis. Pathology suggests presence and deposition of Anti glomerular basement membrane antibodies that effect both lungs and kidneys. The disease primarily affects young men and usually follows a prodrome. The target antigen is a component of the non collagenous (NCI) domain of the  $\alpha 3$  chain of type IV collagen. This 34-year-old has Hematuria and deposits of IgG along the alveolar basement membranes and the glomerular basement membranes confirming GPS.

**Q 2.** A 66-year-old unwell female has six-week history of weight loss and night sweats. Examination is unremarkable except for obvious weight loss. Initial MSU and urine cytology is negative except for few RBCs in urine. She should be evaluated for:

- (a) Renal cancer
- (b) Pyelonephritis
- (c) VHL Syndrome
- (d) Mycobacterial infection

**Ans: (d) Mycobacterial infection**

Renal Tuberculosis can present in a silent manner. Patient might be almost asymptomatic with simple symptoms and signs like weight loss and feeling of being unwell accompanied by Night sweats. Sometimes Hematuria may be obvious. Sterile Pyuria is a feature.

**Q 3.** "Maple syrup urine disease" is a familial cerebral degenerative disease caused by a:

- (a) Defect in unbranched amino acid metabolism
- (b) Defect in branched chain amino acid metabolism
- (c) Defect in ketogenic amino acid metabolism
- (d) Defect in essential amino acid metabolism

**Ans: (b) Defect in branched chain amino acid metabolism**

Maple syrup urine disease (MSUD) is an autosomal recessive disease, also called branched chain ketoaciduria. It is characterized by Burnt sugar odour of urine or the odor of maple syrup. It is characterized by Complete deficiency of Keto acid decarboxylase.

# Platinum Plus

## Q-Bank

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