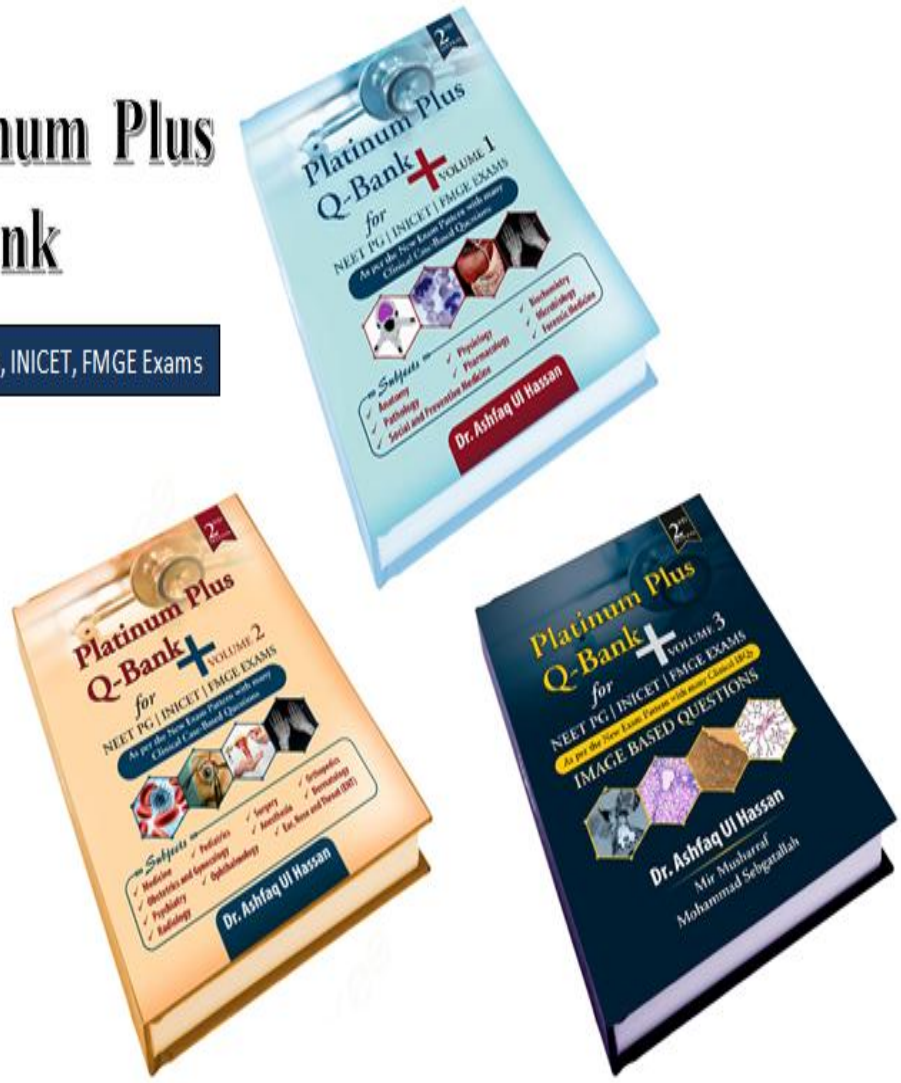
Platinum Plus Q-Bank

for NEET PG, INICET, FMGE Exams



CONTENTS

About the Author ____ (v)
Preface ____ (vii)

UNIT 1
ANATOMY ____ 1-67

UNIT 2
PHYSIOLOGY ____ 68-117

UNIT 3
BIOCHEMISTRY ____ 118-161

UNIT 4
PATHOLOGY ____ 162-211

UNIT 5
PHARMACOLOGY ____ 212-268

UNIT 6
MICROBIOLOGY ____ 269-339

UNIT 7
SOCIAL AND PREVENTIVE MEDICINE ____ 340-376

UNIT 8
FORENSIC MEDICINE ____ 377-403


NOTES

8 FORENSIC MEDICINE

Q 1. A 33-year-old man working as a pest killer comes to OPD with pain abdomen, garlic odour on his breath and transverse lines on his nails. Most likely the person is having:

(a) Arsenic poisoning
(b) Lead poisoning
(c) Mercury poisoning
(d) Cadmium poisoning

Ans: (a) Arsenic Poisoning

Garlic odour and transverse lines on nails, i.e., Mee's lines are features of **chronic arsenic poisoning.**

Chronic Arsenic poisoning: Chronic poisoning occurs **because of accidental repeated exposures to arsenic or due to after effects of an acute attack.**

Symptoms and signs occur in the following 4 stages:

1. **The first stage of nutritional and gastrointestinal disturbances:** It is loss of appetite, nausea, and intermittent attacks of vomiting and diarrhea.
2. **Second stage of catarrhal changes:** Cold, cough, conjunctivitis, running of eyes and nose and hoarseness of voice.
3. **Third stage of skin changes:**
   - Patchy brown pigmentation of the skin called **'Raindrop' type pigmentation.**
   - Hyperkeratosis of the palms and soles.
   - Falling of hairs and brittleness of nails.
   - Transverse lines on nails called Mee's lines are seen.
4. **The fourth stage of nervous disturbances is characterized by** peripheral neuropathy, tingling and numbness of the hands and feet, muscle pain, parenthesis, headache, drowsiness and impairment of vision and mental activity.

Q 2. A 22-year-old mentally ill pregnant female is brought for MTP. Consent in this case is to be taken from whom?

(a) Legal guardian
(b) Doctor treating the patient
(c) Partner
(d) Self consent

Ans: (a) Legal Guardian

REMEMBER:

- Only female's consent is required.
- Husband consent is not required. (The confidentiality about name is maintained)
- In case of a mentally ill pregnant female, the consent can be given by legal guardian.

Q 3. In case of autopsy of an Alcohol abuse, how will you detect the presence the sample of blood in this case?

(a) Sodium fluoride (b) Rectified sprit
(c) Sodium chloride (d) Formalin

7 SOCIAL AND PREVENTIVE MEDICINE

Q 1. In population of 2,00,000 reported live births are 4000. Causes of maternal deaths are as follow: 2 deaths by ectopic pregnancy, 2 deaths by Puerperal sepsis, 2 deaths by abortion, 4 deaths by PPH, 2 deaths by electrocution with 5 still births Calculate the MMR?

(a) 250/1 lakhs (b) 500/1 Lakhs
(c) 20/1 Lakhs (d) 25/1 Lakhs

Ans: (a) 250/1 lakhs

As per Question National deaths

2 ectopic pregnancy	= 10
2 Puerperal sepsis	
2 abortion	
4 PPH	

MMR Includes deaths due to ectopic pregnancy, Puerperal sepsis, abortion and PPH. Rest of Still birth and Electrocution will not be included in MMR.

So MMR Will be 10/4000 multiplied by 100000. That equals 250/1 lakh

Q 2. A 30 year lady coming to clinic on 5th day of unprotected coitus, the best emergency contraceptive will be:

(a) LNG (b) IUCD
(c) COCP (d) Mifepristone

Ans: (b) IUCD

Contraceptive Advice:

- For newly married couples oral contraception pill is the method of choice
- Barrier and Natural methods have high failure rate.
- IUCD are not prescribed in nulliparous females due to increase risk of PID and infertility. They may be used in case of unprotected coitus
- Condom are suitable for use in old ager for couple who have infrequiuent coitus, during lactation, during holiday, subject who can not tolerate OCP, IUCD.
- In breast feeding females. Lactational amenorrhoea provides protection.
- In later periods of Lactation, Progesterone only pills are the most effective contraceptive

EXTRA EDGE:

Methods of contraception:

- Barrier method
- Natural contraception
- Oral contraception pill
- Injectables
- Implants
- Devices like IUCD's
  Levonoegestrel IUCD's
- *Surgical methods:*
  - *Female:* Tubectomy
  - *Male:* Vasectomy

6 MICROBIOLOGY

Q 1. A child developed severe fever. Dengue was diagnosed. True about dengue is:

(a) Member of the Flaviviridae family, single-stranded RNA virus
(b) Member of the Flaviviridae family, single-stranded DNA virus
(c) Member of the Flaviviridae family, double-stranded RNA virus
(d) Member of the Flaviviridae family, double-stranded DNA virus

Ans: (a) Member of the Flaviviridae family, single-stranded RNA virus

- Dengue virus is a member of the Flaviviridae family, which consists of single-stranded RNA viruses with a lipid envelope approximately 50nm in diameter.
- There are four serotypes of dengue: DEN-1, DEN-2, DEN-3 and DEN-4.
- No cross-protection is seen among this serotypes, so dengue can develop after infection with another serotype.
- Infection with a second serotype places the individual at risk for the development of hemorrhagic fever.

Q 2. In a child with hereditary spherocytosis, the anemic crises associated with low reticulocytes are mostly due to:

(a) HTLV1 (b) Parvovirus
(c) EBV (d) CMV

Ans: (b) Parvovirus

Transient Aplastic Crises:

- In persons with underlying hemolysis or a high demand for production of circulating erythrocytes, acute B19 parvovirus infection causes transient aplastic crises, an abrupt cessation of red blood cells production that exacerbates or, in previously compensated states, provokes severe anemia.
- Erythropoiesis is temporarily suppressed in all B19 parvovirus infections, but hemoglobin levels ordinarily remain stable because of the long lifespan of erythrocytes.
- The anemic crises associated with low or absent reticulocytes in hereditary spherocytosis and sickle cell disease are virtually always secondary to B19 parvovirus infection

Q 3. In an adult coronavirus infection was detected lately in May 2024. The Protein(s) stands for:

(a) Small envelope protein
(b) Spike Protein
(c) Surfactant Protein
(d) Special Attachment Protein

Ans: (b) Spike Protein

Coronavirus are single stranded, positive-sense RNA viruses.

5 PHARMACOLOGY

Q 1. Which is not true of the new generation drug namely Cefiderocol?

(a) No action on outer cell membrane of gram negative bacteria
(b) Injectable
(c) Siderophole cephalosporin
(d) New Generation Drug

Ans: (a) No action on outer cell membrane of gram negative bacteria

Cefiderocol:

- Injectable.
- Siderophole cephalosporin.
- New Generation Drug.
- Action on outer cell membrane of gram negative bacteria.
- Effective against gram negative aerobic bacteria.

Q 2. Not a correct match is:

(a) Capromab used in Prostatic cancer
(b) Cetuximab used in Colorectal cancer
(c) Ponesumab used in Osteoporosis
(d) Ecromeximab used in Malignant melanoma

Ans: (d) Ecromeximab used in Malignant melanoma

REMEMBER THE USES OF THESE ANTIBODIES:

Capromab	Prostatic cancer
Cetuximab	Colorectal cancer
Ponesumab	Osteoporosis
Ecromeximab	Malignant melanoma
Edrocolomab	Colonic cancer
Efungumab	Invasive candida infection
Ertumaxomab	Mammary tumor
Infliximab	Rheumatoid arthritis
Nacolomab	Colonic cancer
Palivizumab	Respiratory syncytial virus
Panobacumab	Pseudomonas aeruginosa infection
Rituximab	Non-hodgkin lymphoma

Q 3. Eluxadoline is a newer drug used in Gastroenterology. Main property about the drug is best exemplified by the statement:

(a) is a mu receptor antagonist and delta receptor antagonist
(b) is a mu receptor agonist and delta receptor agonist
(c) is a mu receptor antagonist and delta receptor agonist
(d) is a mu receptor agonist and delta receptor antagonist

Ans: (d) is a mu receptor agonist and delta receptor antagonist

4 PATHOLOGY

Q 1. A patient has tripple A syndrome. It is characterised by:

(a) Alacrimia and Adrenal hyperplasia
(b) Agnosia and Adrenal hyperplasia
(c) Alacrimia and Addisons disease
(d) Agnosia and Addisons disease

Ans: (c) Alacrimia and Addisons disease

Tripple A syndrome is characterised by:

- Achlasia
- Alacrimia
- Addisons disease
- It is also known as Allgrove syndrome

Q 2. A young male presents with a small swelling. It is diagnosed as Dermatofibrosarcoma Protuberans (DFSP). What is true of this swelling:

(a) It is a superficial tumor of high -grade malignancy
(b) It is a superficial tumor of low-grade malignancy
(c) It is a deep tumor of high -grade malignancy
(d) It is a deep tumor of low-grade malignancy

Ans: (a) It is a superficial tumor of high -grade malignancy

Dermatofibrosarcoma Protuberans (DFSP)

- It is a superficial tumor of intermediate (low-grade) malignancy. This tumor occurs primarily in young adults and develops as a cutaneous mass, most commonly on the chest wall or trunk. Initially developing as a plaque or small nodule, it may grow to a large size, ulcerate, and give rise to satellite nodules.
- There are two rare variants of DFSP: pigmented DFSP (Bednar tumor) and giant cell fibroblastoma.

Q 3. A young male presents with easy fatiguibility. On extensive work up he has been diagnosed with Cronkhite-Canada syndrome. It presents as:

(a) Multiple polyposis
(b) Multiple enchondromatosis
(c) Multiple hemangiomas
(d) Multiple pseudocysts in liver

Ans: (a) Multiple polyposis

Cronkhite-Canada syndrome:

- The Cronkhite-Canada syndrome is a multiple polyposis of unknown cause that lacks hereditary transmission and presents with hamartomatous polyps, similar to juvenile polyps.
- In the stomach, small bowel, and large bowel.
- The syndrome, which usually becomes clinically manifest between 50 and 60 years of age, includes

3 BIOCHEMISTRY

Q 1. A Child has been diagnosed with Tangiers Disease. Biochemical values suggestive of disease are:

(a) Reduced (HDL) cholesterol levels, whereas triacylglycerol levels are increased
(b) Reduced (HDL) cholesterol and triacylglycerol levels
(c) Increased (HDL) cholesterol and triacylglycerol levels
(d) Normal (HDL) cholesterol levels, whereas triacylglycerol levels are decreased

Ans: (a) Reduced (HDL) cholesterol levels, whereas triacylglycerol levels are increased

- **Tangier disease** is caused by mutations in the ATP-binding cassette transporter 1 (ABC1) gene, which leads to markedly reduced levels of high-density lipoprotein (HDL) cholesterol levels, whereas triacylglycerol levels are increased.
- Nerve biopsies reveal axonal degeneration with demyelination and remyelination.

Q 2. Niemann-Pick diseases are autosomal recessive disorders that result from defects in enzyme involved specifically with:

(a) Mucopolysaccharides (b) Cerebrosides
(c) Ceramide trihexoside (d) Sphingomyelin

Ans: (d) Sphingomyelin

Niemann-Pick diseases:

- Are autosomal recessive disorders that result from defects in acid sphingomyelinase.
- Types A and B are distinguished by the early age of onset and progressive CNS disease in type A.
- Type A typically has its onset in the first 6 months of life, with rapidly progressive CNS deterioration, spasticity, failure to thrive, and massive hepatosplenomegaly

Q 3. A child has a biochemical deficiency of galactose-1-phosphate uridyltransferase. Likely features would be:

(a) Alkalosis, glycosuria, aminoaciduria and hypoglycemia
(b) Acidosis, glycosuria, aminoaciduria and hyperglycemia
(c) Alkalosis, glycosuria, aminoaciduria and hyperglycemia
(d) Acidosis, glycosuria, aminoaciduria and hypoglycemia

Ans: (d) Acidosis, glycosuria, aminoaciduria and hypoglycemia

Galactosemia: Galactosemia is an autosomal recessive disease caused by a deficiency of galactose-1-phosphate uridyltransferase. Clinical manifestations are most striking in a neonate who, when fed milk, generally exhibits evidence of liver failure

2 PHYSIOLOGY

Q 1. Which interferon/s is called as leucocyte interferon?

(a) Alpha interferon
(b) Beta interferon
(c) Gamma interferon
(d) Beta interferon and gamma interferon

Ans: (a) Alpha interferon

- Alpha interferon (IFN-α), formerly known as leucocyte interferon, is produced by leucocytes following induction by suitable viruses. It is a non-glycosylated protein. At least 16 antigenic subtypes have been identified.
- Beta interferon (IFN-β), formerly known as 'fibroblast' interferon, is produced by fibroblasts and epithelial cells following stimulation by viruses or polynucleotides. It is a glycoprotein.
- Gamma interferon (IFN-γ), formerly known as immune interferon, is produced by T lymphocytes, on stimulation by antigens or mitogens. It is a glycoprotein. It is more concerned with immunomodulatory and antiproliferative functions than with antiviral defence. It also differs from alpha and beta interferons in having a separate cell receptor.

Q 2. What statement is not true of gherlin?

(a) Produced by D1 cells in gastric fundus
(b) Produced in kidneys
(c) Produced in pancreas
(d) None of the above

Ans: (d) None of the above

Gherlin is produced by D1 cells in gastric fundus.

It is also produced in:

- Pancreas
- Kidneys
- Pituitary gland
- Intestines
- It causes stimulation of gastric contraction and stimulates gastric emptying.

Q 3. In a 54 year old patient who had pancreatic fistula and was previously on long term Aspirin therapy, which acid base value would signify metabolic acidosis and respiratory alkalosis.

(a) pH 7.45, $PaCO_2$ 30, (mmHg), HCO_3 22 (meq/L)
(b) pH 7.41, $PaCO_2$ 44, (mmHg), HCO_3 22 (meq/L)
(c) pH 7.36, $PaCO_2$ 22, (mmHg), HCO_3 12 (meq/L)
(d) pH 7.28, $PaCO_2$ 55, (mmHg), HCO_3 24 (meq/L)

Ans: (c) pH 7.36, $PaCO_2$ 22, (mmHg), HCO_3 12 (meq/L)

1 ANATOMY

Q 1. A Surgeon notices a swelling in the Axilla. On detailed examination and investigation it is found to be a component of normal breast tissue extending to the Axilla. The most likely swelling is the:

(a) Axillary tail of spence
(b) Lake of Styles
(c) Milk line
(d) Subareolar plexus of aappy

Ans: (a) Axillary tail of spence

The **superolateral quadrant** is prolonged towards the axilla along the inferolateral edge of Pectoralis major, from which it projects a little, and may extend through an opening in the deep fascia **(Foramen of Langer)** up to the apex of the axilla **(Axillary tail of Spence).**

The breast lies upon the **deep pectoral fascia,** which in turn overlies pectoralis major and serratus anterior. Between the breast and the deep fascia is loose connective tissue in the 'submammary space'.

The nipple projects from the centre of the breast anteriorly. It lies at the fourth intercostal space in most young women.

The **areola** is a darkly pigmented area of skin, which circles the base of the nipple.

Montogomerys tubercles are sebaceous glands under lying the areolar skin which enlarge during pregnancy and lactation.

Q 2. A 35-year-old female has pain, numbness, and tingling in the ring and little fingers, followed by loss of sensation and motor weakness. The most likely cause is:

(a) Carpal Tunnel Syndrome
(b) Cubital Tunnel Syndrome
(c) Ape Thumb Syndrome
(d) Guyon's Canal Syndrome

Ans: (d) Guyon's Canal Syndrome

Guyon's canal syndrome is a term used for entrapment of the ulnar nerve in Guyon's canal, which causes pain, numbness, and tingling in the ring and little fingers, followed by loss of sensation and motor weakness. It can be treated by surgical decompression of the nerve in the Guyon's canal.

Q 3. A student is reading about the Pyramidal Tract. The most appropriate statement would be that the decussation of pyramidal tract occurs at the level of:

(a) Corona Radiata (b) Midbrain
(c) Pons (d) Medulla

Ans: (d) Medulla

Pyramidal tract Arises mainly from area 4 in the **Precentral gyrus.** The left area controls the right side and vice versa. The fibers descend in the corona

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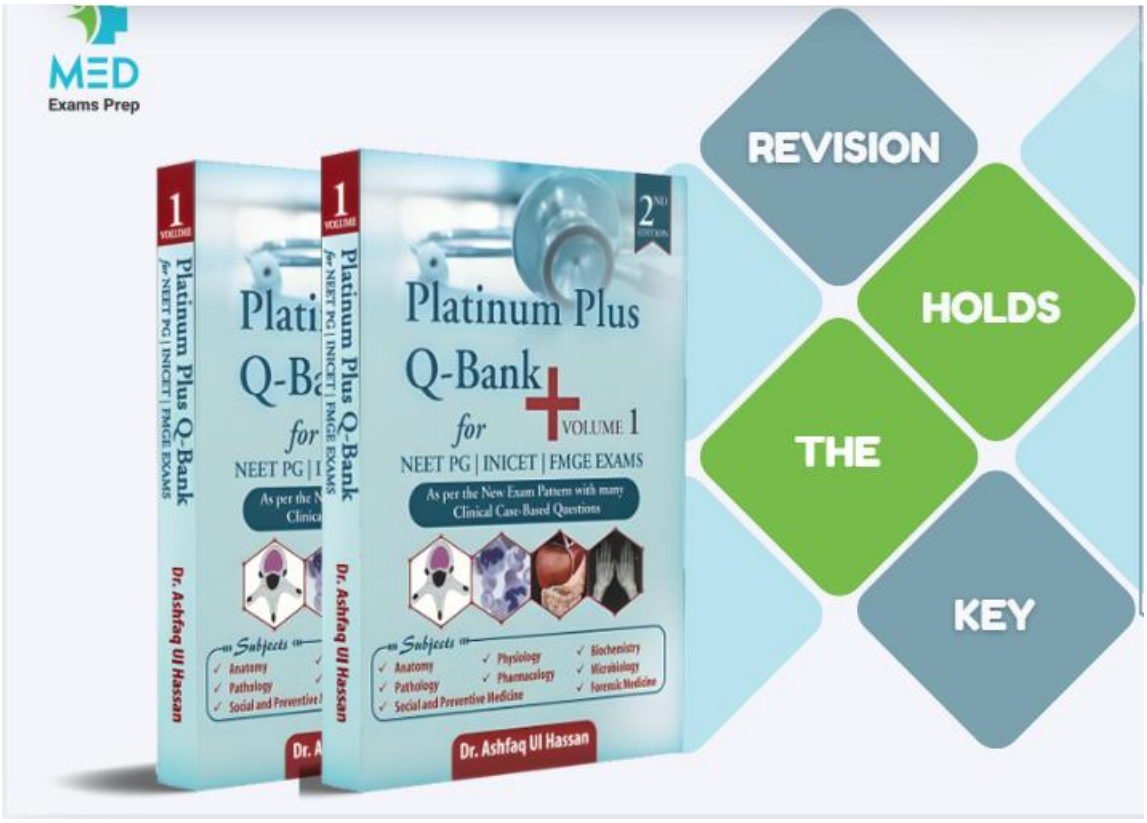
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