

Penicillins MOA

**Bind to the PBP's and inhibiting the transpeptidase that catalyzes the final step in cell wall biosynthesis**

Anti histamins 1st generation and 2nd generation difference

**First gen: anti-parkinsonian, CNS depression/sedation, anticholinergic, anti-emetic (used for sedation in children pre-op, during cancer chemotherapy)**

**Second gen: improved selectivity for H1 (histamine) receptor (mainly used for allergy related disorders like rhinitis, dermatitis, etc)**

Orphan drugs name..and def

**Drugs used for diagnosis, treatment, or prevention of RARE diseases (ex. digoxin antibody and fomepizole; Ivacaftor for cystic fibrosis)**

**Europe: 5 in 10 000**

**United States: <6 in 10 000**

Endogenous toxins

**Lipopolysaccharides which form an integral part of cell wall (only found in gram negative rods/cocci)**

Nsaids MOA

**Inhibit the cyclooxygenase enzyme thus decreasing synthesis of thromboxanes, prostaglandins, + prostacyclins (Anti-inflammatory effect is mainly due to inhibition of COX-2)**

Floroquinolones MOA

**Inhibit DNA gyrase (topoisomerase II) in gram-neg bacteria: nicking, formation of negative supercoils, and resealing of strands of DNA, thus blocking DNA transcription**

**Inhibit topoisomerase IV in gram-pos: preventions seperation of the replicated DNA**

3RD GENERation cephalosporins antibacterial spectrum

**Better activity against gram-neg bacteria (Neisseria, Serratia, E.coli, Proteus, Klebsiella); HACEK organisms (hemophilus, aggregatibacter, cardiobacterium, eikenella, kingella), Pseudomonas (ceftazidime)**

Acute apendicitis

Chronic cholecystitis

Names of suspenion syrup drops..etc etc

Skeleton indices

Injury classification on the basis of qissas and diyat

Hurt classification on the basis of qissas and deyat

**Classified based on manner of infliction:**

**1. Hurt by negligent driving**

**2. Hurt by rash and negligent act**

**3. Hurt by mistake (Khata)**

**4. hurt by means of poison (Sec 337J)**

**Based on part of body involved:**

**1. Itlaf-I-Udw (Sec 333): causing dismembering, amputation, or severing of any limb/organ of body**

**2. Itlaf-I-Salahiyat-I-Udw (Sec 335): destroying or permanently impairing the functioning power/capacity of any organ of body or causing permanent disfigurement**

**3. Shajjah (Sec 337A): hurt on the head/face which does not amount to itlaf-i-udw or itlaf-i-salahiyat-udw**

**4. Jurh (Sec 337B): hurt on any part of the body other than head/face which leaves a mark of wound (either temporary or permanent)**

**5. Miscellaneous (Sec 337-L)**

Paracetamol and aspirin difference and benefit of paracetamol over aspirin.

<b>Table 6.7 Differences between aspirin and paracetamol</b>	
<b>Aspirin</b>	<b>Paracetamol</b>
1. It is a salicylate derivative	1. It is a <i>para</i> -aminophenol derivative
2. It has analgesic, antipyretic and potent anti-inflammatory effects	2. It has potent antipyretic and analgesic effects with poor anti-inflammatory activity
3. It causes GI irritation (nausea, vomiting, peptic ulcer and bleeding)	3. It usually does not produce gastric irritation
4. In large doses, it produces acid-base and electrolyte imbalance	4. It does not produce acid-base and electrolyte imbalance
5. It has antiplatelet action	5. It has no antiplatelet action
6. It has no specific antidote	6. <i>N</i> -acetylcysteine is the antidote
7. It is contraindicated in peptic ulcer, people with bleeding tendency, bronchial asthma and in children with viral infection	7. Paracetamol is the preferred analgesic and antipyretic in patients with peptic ulcer, bronchial asthma and in children

Reyes syndrome

**Use of aspirin in children with a viral infection that results in encephalopathy and hepatic dysfunction (swelling in liver + brain)**

Medical jurisprudence

**Knowledge of law in relation to the practice of medicine**

Types of finger prints

**Loop (Most common), whorl, arch, and composite (least common)**

Xanthogranulomatous appendicitis

**Chronic inflammation of the appendix resulting in tissue destruction and localised proliferation of lipid laden macrophages + histiocytes**

Periappendicitis

**Appendiceal serosal inflammation without mucosal involvement due to extra-appendicular causes (diverticulitis, salpingitis, IBD)**

Alma Atta Declaration: Health for all...something

**WHO + UNICEF arranged a conference at Alma Ata (capital of Kazakhstan) b/w September 6th-12th 1978**

**It was declared that the health status of millions of people in developing world is unacceptable, so they implemented "Health for All by 2000"**

**HFA: attainment of a level of health that will enable every individual to live a socially and economically productive life (key to achieving this is thru Primary Health Care)**

Conjugation

**Mating of 2 bacterial cells, during which DNA is transferred from male donor to female recipient cell (using the sex pilus)**

Transformation

**Transfer of DNA itself from one cell to another (dying bacteria may release their DNA into the environment and then it is taken up by recipient cells)**

Endotoxin types

**Smooth lipopolysaccharides: consist of O-antigen, complete core oligosaccharides, + lipid A (seen in Brucella abortus, melitensis)**

**Rough lipopolysaccharide: do not possess the O antigen (seen in Brucella canis + ovis)  
3 streptococcus organisms**

Strept and staph differentiating test

**Catalase test**

Acute appendicitis hai patient ko sath mri or kn knse differential mei diseas hoskti hai...

**Diverticulitis, IBD, colon cancer, cystitis, + endometritis**

Cephalic index

**Maximum breadth (measured transversely) X 100/Maximum length**

Tattoo model medicolegal importance of this tattoo model

**Identification, profession, behaviours, social status, political convictions, race, religion**

Intracellular accumulation of pigment that cause wear and tear

**Lipofuscin (seen with aging)**

Apoptosis, cells that cannot be apoptosized, mechanism of trigger of apoptosis

**Energy dependent programmed cell death involving single or small groups of cells**

**Mediated by caspases that activate proteases (breakdown cytoskeleton) + endonucleases (breakdown DNA)**

**Caspases can be activated via intrinsic mitochondrial pathway, extrinsic receptor-ligand pathway, + cytotoxic CD8+ T cell mediated pathway**

**Cells that cannot be apoptosized: skeletal muscle cells, tumour cells**

Necrosis and types

**Necrosis is death of large groups of cells followed by inflammation due to some underlying pathological process**

**Types: Coagulative, liquefactive, gangrenous, caseous, fat, + fibrinoid necrosis**

Hypoxia and ischemia

**Hypoxia: low O<sub>2</sub> delivery to the tissue (important cause of cellular injury); causes of hypoxia include ischemia, hypoxemia, + decreased O<sub>2</sub> carrying capacity of the blood**

**Ischemia: decreased blood flow through an organ (can be due to decreased arterial perfusion, shock, or decreased venous drainage)**

And ID points of appendicitis....

**Muscle splitting (muscularis externa)**

**Neutrophilic infiltration up to serosa**

**Mucosa is not intact**

**Lumen may become crescent shaped (due to collapse)**

Community viva:

Primary health care

**Essential healthcare made universally accessible to individuals and families in the community, by means acceptable to them thru their full participation and at a cost that the community + country can afford (consists of 4 principles + 8 elements)**

Typhoid fever complications

**Paralytic ileus, perforation, intestinal hemorrhage, typhoid osteomyelitis)**

Health indicators

**Health indicator is a characteristic of an individual, population, or environment which is subject to measurement and can be used to describe one (or more) aspects of the health of an individual or population**

**Types: mortality, morbidity, disability rates, nutritional status indicators, healthcare delivery indicators, socio-economic, health policy indicators, environmental indicators**

Morbidity indicators

**Incidence + prevalence, notification rates, attendance rates at out-patient departments, duration of stay in hospital, + spells of sickness or absence from work/school**

Infant mortality rate

**Mortality indicator; ratio of deaths under 1 year of age in a given year to the total number of live births in the same year (most universally accepted indicator of health status in newborns and of whole population + socioeconomic conditions)**

Types of prevention

**Primordial (thru mass education), primary (health promotion + specific protection), secondary (early diagnosis + prompt treatment), tertiary (disability limitation + rehabilitation)**

Primary health care WHO

Public health definition WHO

**“Public health refers to all organized measures (whether public or private) to prevent disease, promote health, and prolong life among the population as a whole. Its activities aim to provide conditions in which people can be healthy and focus on entire populations, not on individual patients or diseases.”**

Community health definition WHO

**A system of delivery of comprehensive healthcare to the people by a health team in order to improve health of community**

Filariasis

**Parasitic disease caused by thread-like nematodes (roundworms) that are transmitted by black flies + mosquitos**

Dysentery types

**Amoebic + bacillary**

Prevention of dysentery

**Practice good hygiene, handwashing, safe disposal of stool, use safe water**

Biomedical waste why we need to dispose

**Waste arising from a healthcare establishment that needs to be disposed of because it may result in injury by contaminated sharps and infection with HBV, HCV, and HIV**

Types of biomedical waste

**Non-risk waste: paper, cardboard, food waste**

**Risk waste: infectious, pathological, sharps, pharmaceutical, chemical, heavy metals, genotoxic, radioactive**

Define virulence, pathogen, pathogenicity, mutation, spontaneous mutation, conjugation, transformation, normal flora

**Virulence: quantitative measure of pathogenicity and is measured by # of organisms required to cause disease**

**Pathogenicity: ability to cause disease in host organisms (qualitative measure)**

**Mutation: change in the base sequence of DNA that results in the insertion of a different amino acid into a protein, resulting in the appearance of an altered phenotype**

**Spontaneous mutation: mutation that arises naturally and not as a result of exposure to mutagens**

**Normal flora: term used to describe the many bacteria + fungi that are permanent residents of certain body sites (esp skin, oropharynx, colon, + vagina)**

\*Primary treatment for cholera.

**Oral or IV hydration is the primary treatment**

\*Biomedical waste management steps

- 1. Waste segregation**
- 2. Waste collection**
- 3. Waste transportation**
- 4. Waste storage**
- 5. Waste disposal/treatment**

\*organism causing typhoid and Complications of typhoid

**Typhoid is caused by Salmonella typhi (Paratyphoid fever is caused by Salmonella paratyphi)**

Viva sir bangash

- A. Apoptosis. What cells don't get destroyed by apoptosis. Mechanism of apoptosis
- B. Necrosis def. And types.
- C. Free radicals and enzymes involved

**Free radicals are chemical species with an unpaired electron in their outer orbit**

**They can be eliminated by antioxidants (reduced glutathione, vitamins A,C,E), superoxide dismutase, glutathione peroxidase, catalase, and metal carrier proteins (transferrin, ceruloplasmin)**

- D. Pigment retained in cell wear and tear something I don't know?
- E. Chronic inflammation cells

**Macrophages, lymphocytes, plasma cells**

- F. Macrophage activator. Macrophage source.

**Classical pathway (mediated by IFN- $\gamma$ ): in the setting of chronic inflammation, macrophages can be activated to M1 macrophages by stimulation from Th1 cells, resulting in a proinflammatory phenotype**

**Alternative pathway (mediated by IL-4/IL-13): in the setting of chronic inflammation, macrophages can be activated to M2 macrophages by stimulation from Th2 cells, resulting in an antiinflammatory phenotype (these are involved in repair)**

Viva new teacher pharma

- A. Tetracycline sideeffect

**GI distress, photosensitivity, Fanconi syndrome, + ototoxicity (Minocycline)**

- B. Penicillin MoA
- C. Levofloxacin MoA
- D. Histamine 1st vs 2nd generation
- E. Carbamezephone something.... Idk if someone knows that? 😊

Viva sir Fahad

- A. Paracetamol vs aspirin . Why paracetamol is better
- B. Glucocorticoids vs paracetamol in rheumatoid arthritis

**Glucocorticoids are a disease-modifying drug (Paracetamol is just a painkiller)**

- C. Orphan drugs and how many diseased individuals in a population for orphan drugs
- D.
- E.

Viva sir Anwar

- A. What is the importance of your name? It is ur identity
- B. 5 year old child sex determination

### C. Absolute identity definition

**1. Complete: absolute fixation of the individuality of a person and determination of the exact place in community occupied by that person**

**2. Partial: it is ascertainment of some facts about the identity, while some remain unknown**

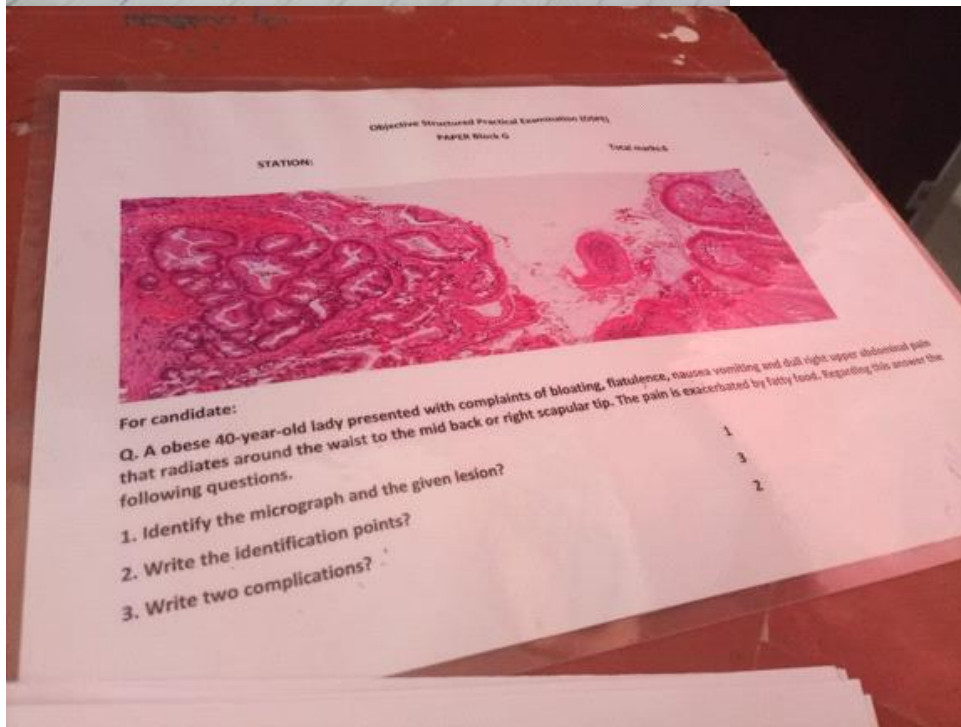
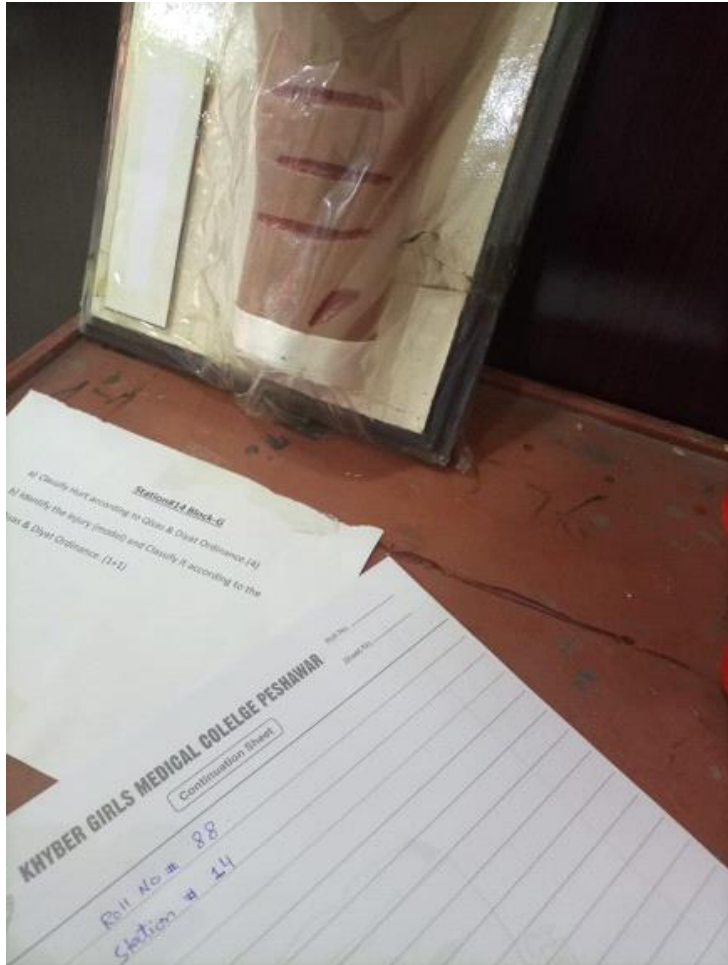
**D. Ways of identification (through 3rd party, subjective and objective)**

Sir Anwar medical malpractice professional negligence and misconduct difference medicolegal systems in the world how to detect poisoning in dead absolute sign of poisoning in dead

Sir Iftikhar malingering perjury hostile witness brain damaged what type of hurt humerus fracture with displacement what type of hurt

Community public health primary health care sgd mgd theories of disease causation mammography which type of prevention biomedical waste definition why we dispose off hospital waste vector of filariasis agent of typhoid fever prevention of dysentery prevention of typhoid complications of typhoid





## Pathology.. Viva II →

- Pathogenesis Definition
- Virulence Definition
- Congugation
- = Normal flora and parasites.
- Endotoxins.

## Pathology → Viva I

- Free radicals & 3 neutralizing enzymes
- Intracellular accumulation which causes wear & tear (pigment) lipofuscin
- Extracellular pigment which accumulates & carbon
- Apoptosis Definition & triggers what causes it? and enzymes (Caspases)
- Necrosis definition and types.
- Macrophage production and phase of activation.
- Hypoxia, Ischemia.
- Cell injury Definition

## Community Viva

- Public health definition
- Prevention Definition
  - Levels of prevention
- Health indicators.

## Viva2

- Waste management steps
- Definition of Biological waste
- Falciparum vector (Anopheles)
- Dysentery Types
- Incubation period of Covid
- Isolation time period.

Roll# 129

1. Orphan drugs?
2. ~~Asks~~ In how much population orphan drug is common  $\frac{1}{1000}$
3. phase 3 clinical trials
4. Difference b/w NSAIDs & Glucocorticoids.
5. why paracetamol is preferred over Aspirin  
~~phospholipase~~  
Az
6. MoA of NSAIDs.

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Station#12 Block-G

- Plus two
- a) Identify the ~~image~~ (0.5)
  - b) State the Medicolegal importance of the above (1.5)
  - c) Enumerate different skull-indices and write their Medicolegal importance (1.5+0.5)




Sheet No. ....

Continuation Sheet

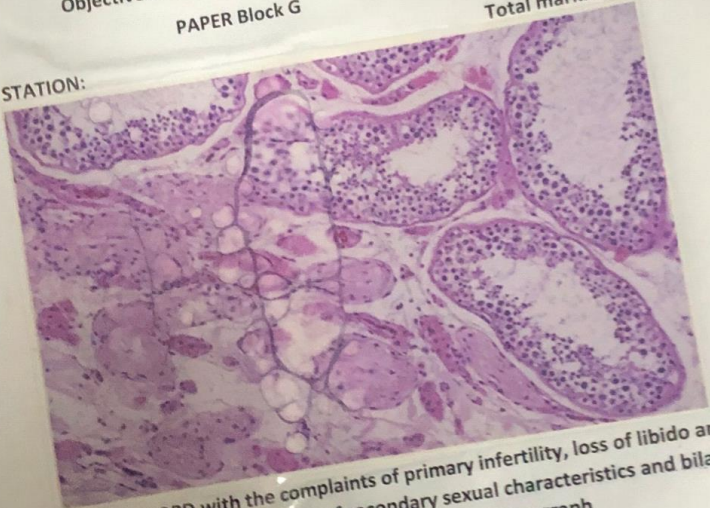
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**KHYBER GIRLS MEDICAL COLLEGE PESHAWAR**

**Objective Structured Practical Examination (OSPE)**  
**PAPER Block G**

**Total marks: 6**

**STATION:**

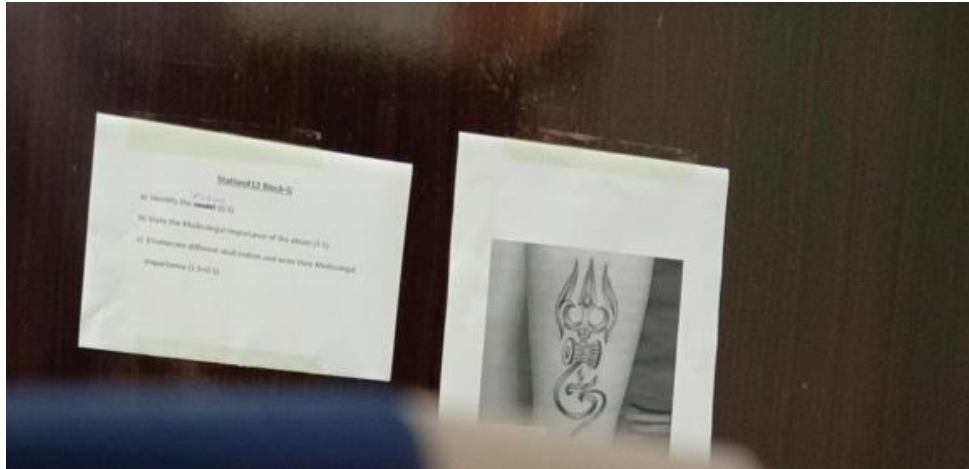


**For candidate:**

**Q. A 28 year old male presented to an OPD with the complaints of primary infertility, loss of libido and female pattern of hair distribution, he also had a history of delayed appearance of secondary sexual characteristics and bilateral cryptorchidism when he was a child and for which he was operated in the past. By looking at the Micrograph**

**Task:**

- 1. Give your diagnosis?**
- 2. Name any genetic disorder which can lead to the same condition?**
- 3. Give 3 histological features of this condition?**




Continuation Sheet

Roll No. ....

Sheet No. ....

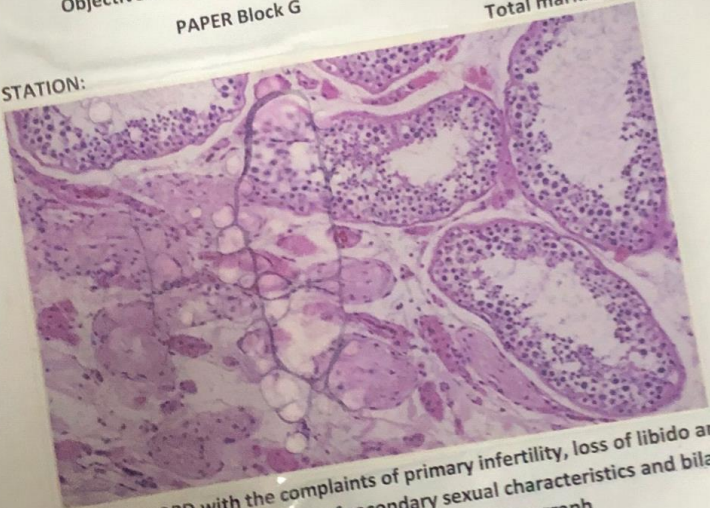
KHYBER GIRLS MEDICAL COLLEGE PESHAWAR



Objective Structured Practical Examination (OSPE)  
PAPER Block G

Total marks: 6

STATION:



For candidate:

Q. A 28 year old male presented to an OPD with the complaints of primary infertility, loss of libido and female pattern of hair distribution, he also had a history of delayed appearance of secondary sexual characteristics and bilateral cryptorchidism when he was a child and for which he was operated in the past. By looking at the Micrograph

Task:

1. Give your diagnosis?
2. Name any genetic disorder which can lead to the same condition?
3. Give 3 histological features of this condition?

Objective Structured Practical Examination (OSPE)

PAPER Block 6

DURATION:

Total marks: 6

Candidate: \_\_\_\_\_  
A 60-year old sexually active woman reports dysuria and other symptoms of urinary tract infection? Gram stain of the urine reveals positive cocci. Regarding this scenario, answer the following questions

- Q.1. Name 3 important organisms from the genus STREPTOCOCCI? 3
- Q.2. Name the biochemical test use to differentiate between staphylococcus aureus from the other two organisms in this group? 1
- Q.3. Why biochemical tests are important to perform in laboratory? 1
- Q.4. Is Toxic shock syndrome toxin TSST-1, a SUPER ANTIGEN? 1

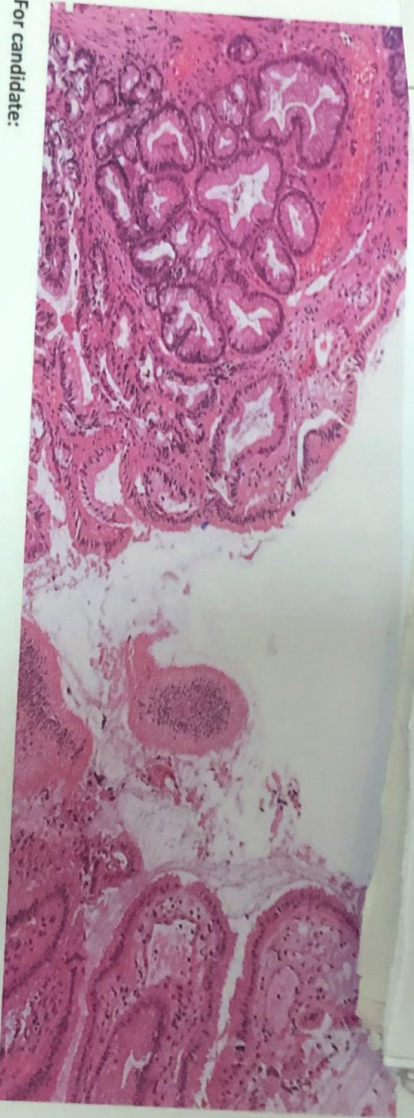


KHYBER GIRLS MEDICAL COLLEGE

Continuation

Roll No





For candidate:

Q. A obese 40-year-old lady presented with complaints of bloating, flatulence, nausea vomiting and dull right upper abdominal pain that radiates around the waist to the mid back or right scapular tip. The pain is exacerbated by fatty food. Regarding this answer the following questions.

1. Identify the micrograph and the given lesion? 1
2. Write the identification points? 3
3. Write two complications? 2



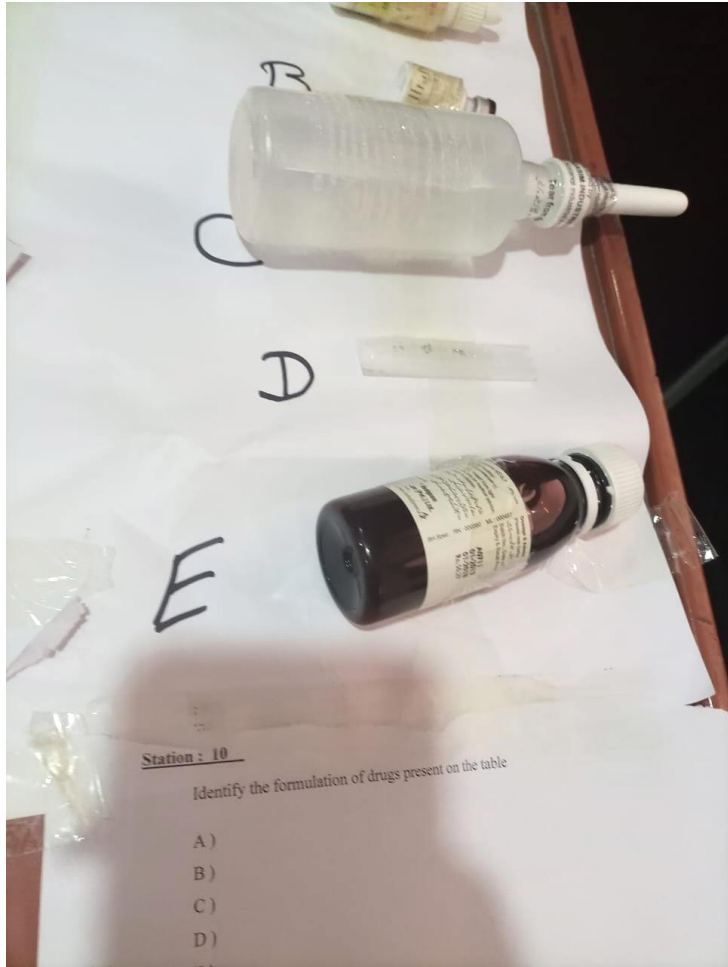
STATION  
NO: 40

D  
B  
D  
B

Identify the denomination of drugs present on the table.

A) \_\_\_\_\_  
B) \_\_\_\_\_  
C) \_\_\_\_\_  
D) \_\_\_\_\_  
E) \_\_\_\_\_





Objective Structured Practical Examination (OSPE)

PAPER Block G

STATION:

Total marks: 6

For candidate:

A 20 year old sexually active woman reports dysuria and other symptoms of urinary tract infection? Gram stain of the urine reveals gram positive cocci. Regarding this scenario, answer the following questions

Task:

1. Name 3 important organisms from the genus STREPTOCOCCI? 3
2. Name the biochemical test use to differentiate between staphylococcus aureus from the other two organisms in this group? 1
3. Why biochemical tests are important to perform in laboratory? 1
4. Is Toxic shock syndrome toxin TSST-1, a SUPER ANTIGEN? 1

### INTERACTIVE STATION 1

**For candidate:**

This is slide from a young man presented in Emergency Room with periumbilical pain and vomiting. The pain later localized to right lower abdominal quadrant. The patient was pale and complained that there was sharp exacerbation of pain on movement and coughing. On palpation there was maximal tenderness close to McBurney's point.

1. What is your diagnosis?
2. What do you mean by xanthogranulomatous appendicitis?
3. What is periappendicitis?
4. Why is early surgery recommended in young children and elderly?
5. Mention diagnostic morphological feature of this condition.

**Station#22 Block-G**  
a) Identify the model (1.5)  
b) State the Medical importance of the above (3.5)  
c) Enumerate different skull indices and write their Medical importance (1.5+0.5)

Lined paper for writing answers.

Objective Structured Practical Examination (OSPE)  
PAPER Block G

STATION:

Total marks: 6



For candidate:

1. Identify the organisms shown in micrograph? 1
2. Name the medium used to culture them? 1
3. Name the stain used for their visualization? 1
4. Name any 2 diseases caused by these organisms? 2
5. Name the test used to differentiate them from streptococci? 1

Objective Structured Practical Examination (OSPE)

PAPER Block 6

DURATION:

Total marks: 6

Candidate: \_\_\_\_\_  
A 60-year old sexually active woman reports dysuria and other symptoms of urinary tract infection? Gram stain of the urine reveals positive cocci. Regarding this scenario, answer the following questions

- Q.1. Name 3 important organisms from the genus STREPTOCOCCI? 3
- Q.2. Name the biochemical test use to differentiate between staphylococcus aureus from the other two organisms in this group? 1
- Q.3. Why biochemical tests are important to perform in laboratory? 1
- Q.4. Is Toxic shock syndrome toxin TSST-1, a SUPER ANTIGEN? 1



KHYBER GIRLS MEDICAL COLLEGE  
Continuation

Roll No





1. G

Objective Structured Practical Examination (OSPE)

PAPER Block 6

QUESTION:

Total marks: 6

Candidate:

A 45-year old sexually active woman reports dysuria and other symptoms of urinary tract infection? Gram stain of the urine reveals positive cocci. Regarding this scenario, answer the following questions

Ques:

1. Name 3 important organisms from the genus STREPTOCOCCI? 3
2. Name the biochemical test use to differentiate between staphylococcus aureus from the other two organisms in this group? 1
3. Why biochemical tests are important to perform in laboratory? 1
4. Is Toxic shock syndrome toxin TSST-1, a SUPER ANTIGEN? 1



KHYBER GIRLS MEDICAL COLLEGE

Continuation

Roll No.

