SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A patient developed folliculitis. Pus was cultured which revealed Gram positive cocci in clusters.

1. Name the causative agent. (0.5)
2. Name the two sites where this organism is present as flora. (1)
3. Name the three toxins produced by this organism. (1)
4. Name one important drug used for treatment of MRSA. (0.5)

Q-1 Staph. Aureus

Q-2 Nose
skin * 5% cases - in vagina of woman.

Q-3 - Exofoliative - scalded skin syndrome
Enterotoxin - Food poisoning
Toxin shock syndrome - Toxic shock syndrome
Toxin

Q-4 Vancomycin
Gentamycin
Clindamycin
Daptomycin.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

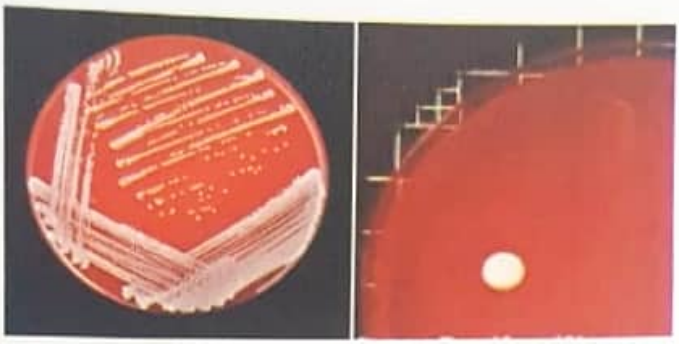
OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

An immunocompromised patient developed endocarditis caused by a normal flora of skin. Blood culture revealed the following results, showing novobiocin sensitivity.



1. Name the causative agent. (1)
2. Novobiocin is used to differentiate which two bacteria? (1)
3. Name one other endocarditis causing bacteria. (1)

Ans-

Q-1 -> Staphylococcus saprophyticus

Q-2- Novobiocin used to differentiate b/w Staph. saprophyticus vs staph. epidermi

Q-3 - ①- Enterococci
②- S. sanquis
③- S. salivarius.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

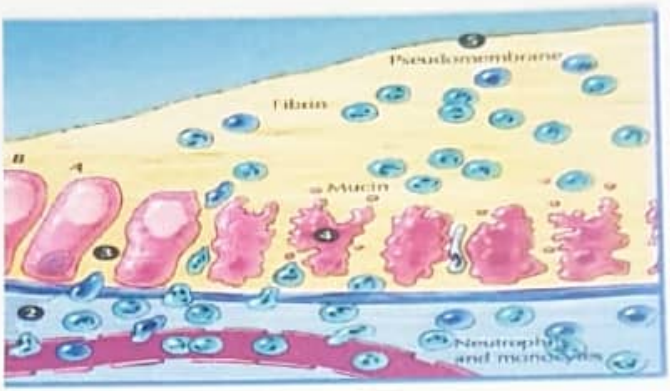
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A patient receiving chemotherapy for Breast carcinoma developed non bloody diarrhea, fever & abdominal cramping. On sigmoidoscopy pseudomembranes (yellow-white plaques) were seen on colonic mucosa.



1. Name the causative agent. (0.5)
2. Is it a Gram positive rod or cocci? Is it aerobe or anaerobe? (0.5 +0.5)
3. Classify Gram positive non-spore forming rods. (1.5)

Q.NO.1

Anti-body assosiated - Pseudomembranous caliti's caused by Clostridium Difficile.

Q-2 Gram +ve Rod - Anaerobic

Q-3 Non-spore Forming

- Non-filamentous
  - Corynobacterium
  - Listeria
- Filamentous
  - Actinomyces
  - Nocordia.

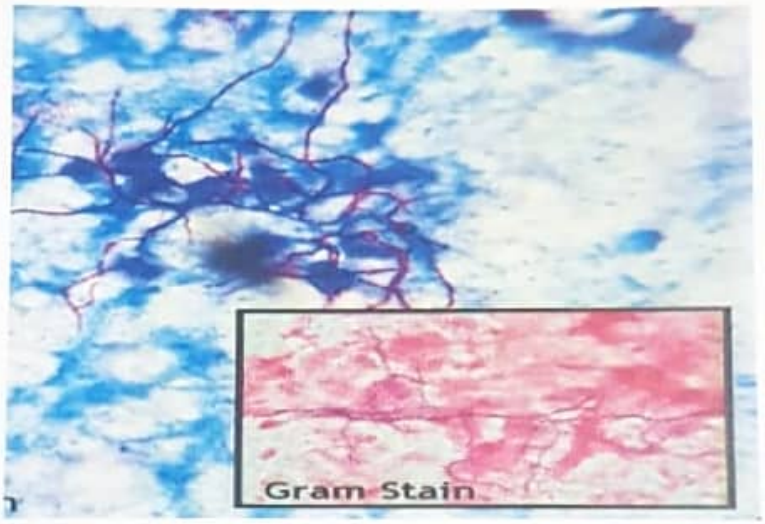
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A young alcoholic having AIDS acquired a bacterium by accidental traumatic inhalation, ending up with lung abscess. His labs showed the following result:



1. Name the causative agent. (1)
2. Is it a filamentous or non-filamentous rod? (1)
3. Name one more weakly acid fast bacilli. (1)

ANS.

Q_No.1 → Nocordia asteroid causing Nocordiasis

Q.No.2 → Filamentous

Q_No.3 → Nocordia
Mycobacterium.

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

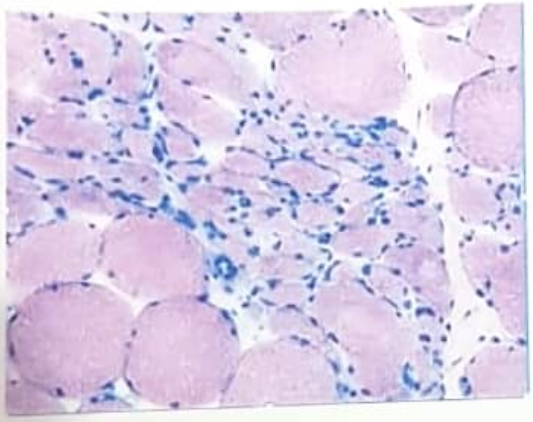
UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

For Candidate:

Marks 04 Time Allowed 04 min



a- What is the diagnosis? 1 Spinal Muscle Atrophy

b- Define it. 1

c- What are the factors causing this condition? 2

Atrophy: ↓ size of cells
↓ No of cells
↓ size of organ.

↑ protein degradation
↑ protein Loss
↑ protein deformation
↓ Protein synthesis
Loss of innervation
Lass of Blood supply
↓ work load

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A patient presented with inflammation of throat, with a fibrinous exudate and gray pseudomembrane causing shortness of breath and respiratory distress. Gram staining of pus revealed Gram positive rods having Chinese letter appearance.

1. What is the causative agent and the disease? (1)
2. What are metachromatic granules? (0.5)
3. Name the technique used to stain it, other than gram staining. (0.5)
4. What is the mechanism of action of its exotoxin? (1)

Ans:

Q-1 Corynebacterium Diphtheria causing Diphtheria

Q-2 – Metachromatic granules:
organism is beaded, have granules of highly polymerized phasphate – store of high energy phasphate. Granules stain metachromatically. Granules stained Red.

Q-3 – Albert stain.

Q-4 – B-subunit – help attachment to receptor
A-subunit – Activate subunit
↓
cleaves nicotinamide From NAD
↓
Transfer remaining ADP ribose to EF_2 ← Inactivate ← ↓ Protein synthesis ← Cell death

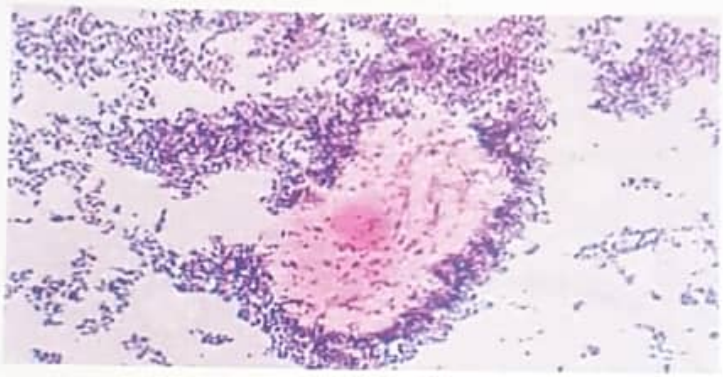
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A female had continuous complaint of thin, grey colored vaginal discharge, having a fishy odor. Gram Staining of vaginal discharge revealed the following result.



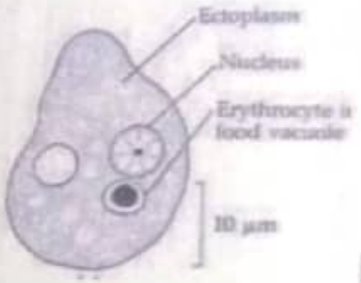
1. Name the following cells and the causative agent. (1)
2. What is vaginosis? (0.5)
3. State two other causes of vaginitis. (1)
4. Name the flora of vagina which maintains the vaginal pH. (0.5)

Ans Q-1 - Clue cells, Bacterial vaginosis caused by Gardnerrela Vaginalis.

Q-2 Vaginosis: Moldorous vaginal discharge and due cells is called Vaginosis

Q-3- Tichomonas vaginitis
Yeast vaginitis.

Q-4 Lactobacilli



a.

b.

Carefully examine the given photograph and answer the following questions:

a. Name the parasite with this trophozoite form. What is its most common complication? (2)

b. Name the parasite with this trophozoite form. What is its most common route of transmission? (2)

MBBS 2ND PROFESSIONAL
MICROBIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

Marks: 04

Time allowed: 04 minutes

3rd YEAR MBBS
PARASITOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Time Allowed 04 min

Marks 04

For Candidate:

Tasks:

Carefully examine the given photograph and answer the following questions:

1. Which parasite has this cystic stage? 1
2. Flask shaped ulcers are formed in which condition? 1
3. What are the complications of this parasitic disease? 2

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A young female patient presented with signs and symptoms of urinary tract infection. Urine culture revealed white colored colonies, ~~resistant~~ sensitive to novobiocin.

Novobiocin sensitive → Staph. Aureus

Novobiocin ✓ → Staph. Resistant saprophyti

1. Name the causative agent. (1) Staph. saphrophyticus.
2. Name two other causative agents of urinary tract infection. (1)
3. Is this organism coagulase positive? (1)

Q.2 E. coli, proteus

Q.3 Coagulase -ve.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A young boy developed fever with large bullae & erythematous macular rash, causing sloughing of skin & electrolyte imbalance, as shown in the picture. His cultures revealed the organism showing the following biochemical tests positive:

→ coagulase Test

→ DNAase

1. Name the disease and the causative agent. (1)
2. Name these biochemical tests. (1)
3. These biochemical tests are used to differentiate which species of bacteria? (1)

Q.No.1 Scalded skin syndrome by staph. Aureus. (Exfoliative Toxin)

Q.No.2 ①- Coagulase Test
②- DNAse Test

Q- Staph aureus - Coagulase +ve
DNAse +ve

Staph. epidermidis -
Staph. saprophyticus - } - Coagulase -ve.

N.S ③

3rd YEAR MBBS

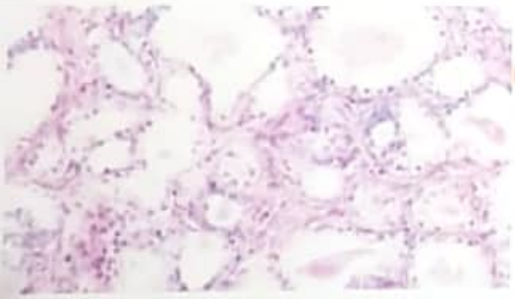
GENERAL PATHOLOGY

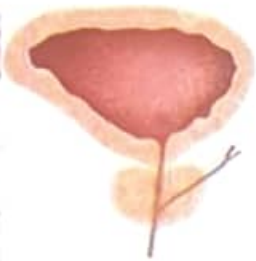
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min





a- What is the diagnosis 1

b- Define it. 1

c- What are the causative factors? 1

d- Give one more example of this condition. 1

① - Hyperplasia

② - ↑ in no. of cells in an organ and tissue

③ - hormones
Growth Factor.

④ - Liver hyperplasia
Breast hyperplasia

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A 13 year old child presented with high grade fever, productive cough and a red tender throat. A culture was taken and empirical therapy was started. The colonies grown showed beta hemolysis and were bacitracin sensitive.

1. Name the causative agent. (1)
2. What are the three modes of pathogenesis of this organism? (1)
3. Name the two post Streptococcal diseases produced by this organism. (1)

ANS

① - Strept. Pyogene.

② - superficial infection
Invasive infection
Auto-immune infection.

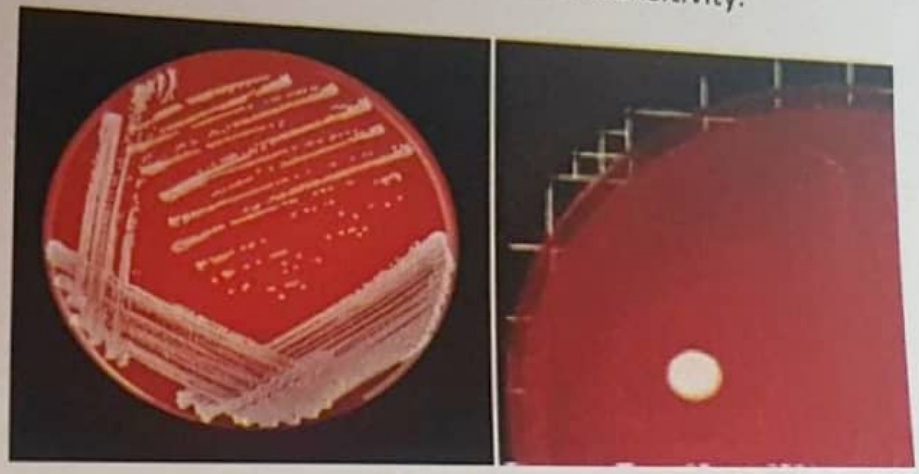
③ - Glomerulonephritis
Necrotizing Fasciitis

MARKS: 03

For Candidate

Time allowed: 04 minutes

An immunocompromised patient developed endocarditis caused by a normal flora of skin. Blood culture revealed the following results, showing novobiocin sensitivity.



1. Name the causative agent. (1)
2. Novobiocin is used to differentiate which two bacteria? (1)
3. Name one other endocarditis causing bacteria. (1)

Ans-

Q-1 → Staphylococcus ~~saprophyticus~~ epidermidis.

: 04 minutes

infection. Urine culture

epidermidis

Novobiocin
sensitive → Staph.
Epidermidis

Novobiocin ✓
→ Staph.

Resistant saprophyticus

ticus.

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

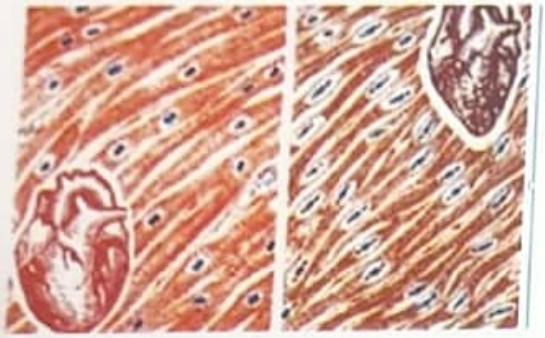
UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is a photomicrograph taken from heart of a 70 year old man during autopsy.

Carefully examine the slide and answer the following questions.



a- What is the diagnosis 1

b- Name the nature of the pigment. 1

c- Name two more intracellular accumulations. 2

① - Lipofuscin pigment in cardiac myocytes

② - Endogenous pigment. (polymer of Lipids, and proteins)

③ - Lipid accumulation

protein accumulation.

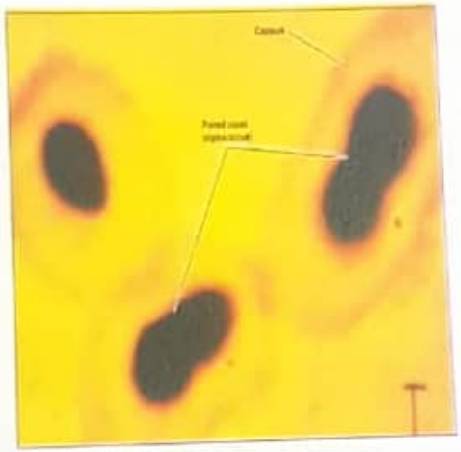
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A splenectomised boy presented with upper respiratory tract infection, ending up with pneumonia. The organism obtained was alpha hemolytic giving the following positive biochemical tests.

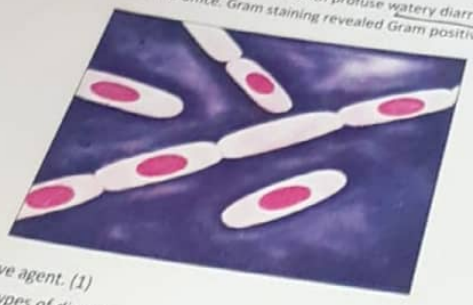


1. Name the causative agent. (1)
2. Name this biochemical test. (1)
3. Name the other alpha hemolytic bacteria. (1)

Q.No-1 → Streptococcus Pneumonia.
Q.No-2 → Capsular swelling Test.
Q.No-3 → Strept viridan

Time allowed: 04 minutes

A patient especially fond of eating rice, presented with profuse watery diarrhea 1 day after attending an annual dinner of his office. Gram staining revealed Gram positive spore forming r



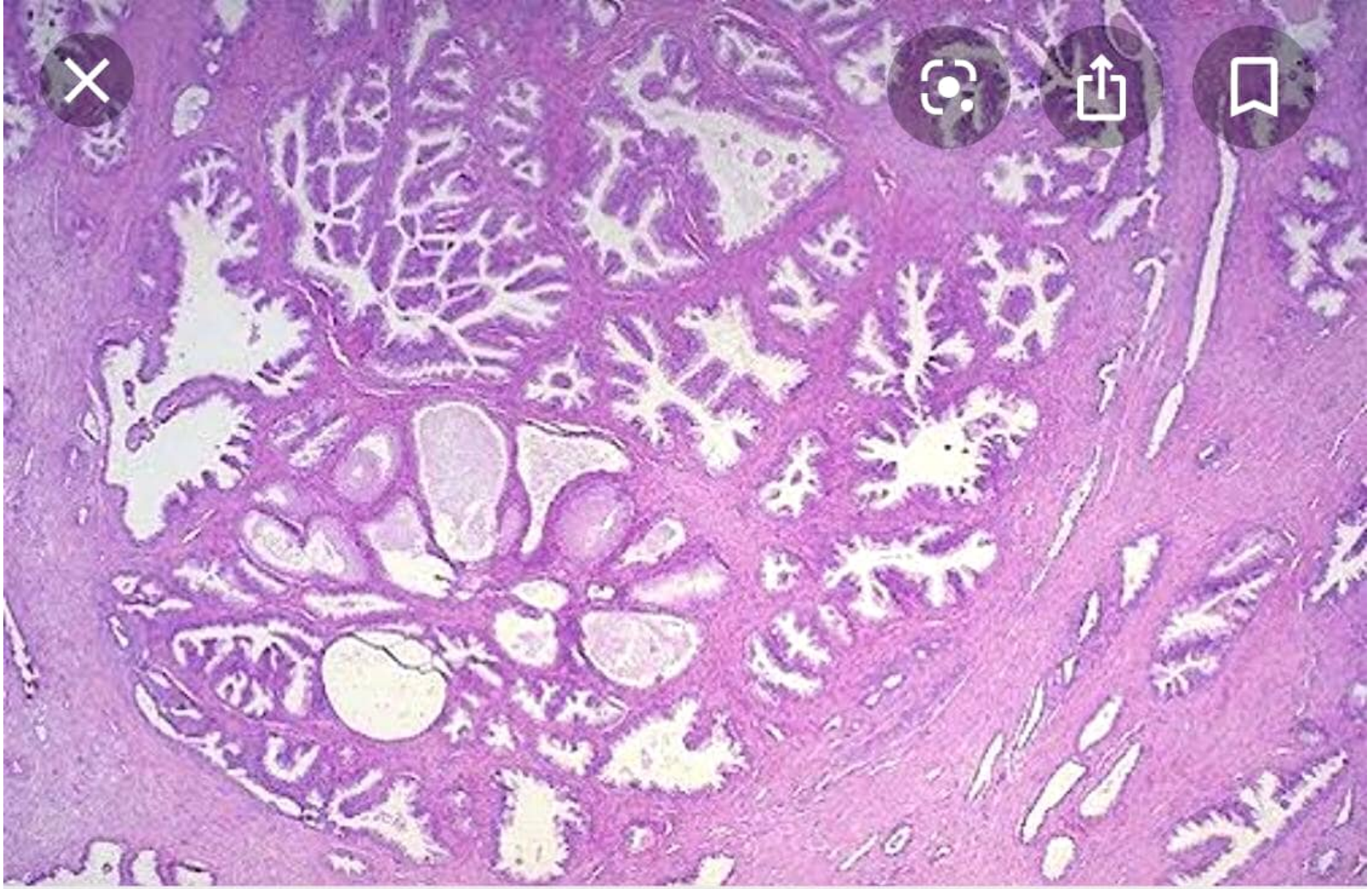
1. Name the causative agent. (1)
2. What are the two types of diseases caused by it? (1)
3. What are the mechanisms of two exotoxins produced by it? (1)

① NO·01 - Baccilus cereus causing Food p

① NO·02 - Diarrheal type
Emetic type

① NO·03
↓
①
(as cholera toxin)
adenyl cyclase

②- ↓
Enterotoxin (as
↓
Act as supe
antige



Pathology Outlines

Visit

Pathology Outlines - Nodular hyperplasia

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3rd YEAR MBBS

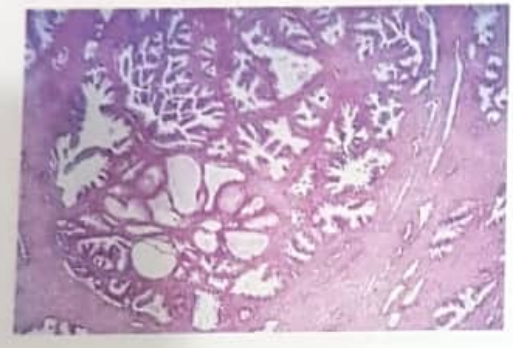
GENERAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min



Task:

1) Identify the lesion (1) Nodular Hyper-plesia
2) Define this process and give key features to identify . (2)
3) Name two other sites where this adaptation can occur. (1) → Liver + Pancreas.

↓

9t's benign tumor of Liver

Key:— 2nd mast pre-valent tumor of liver

Asymptomatic

Rarely grows or bleeds

No malignant postule.

3rd YEAR MBBS

GENERAL PATHOLOGY

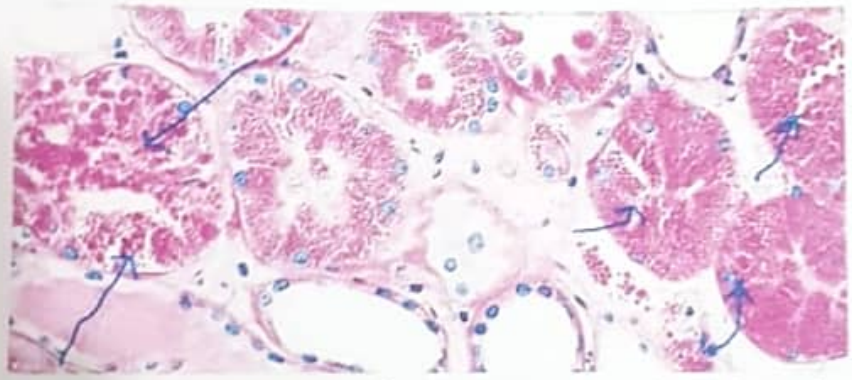
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is a photomicrograph of kidney showing tubules of variable sizes with pink coloured granular material.



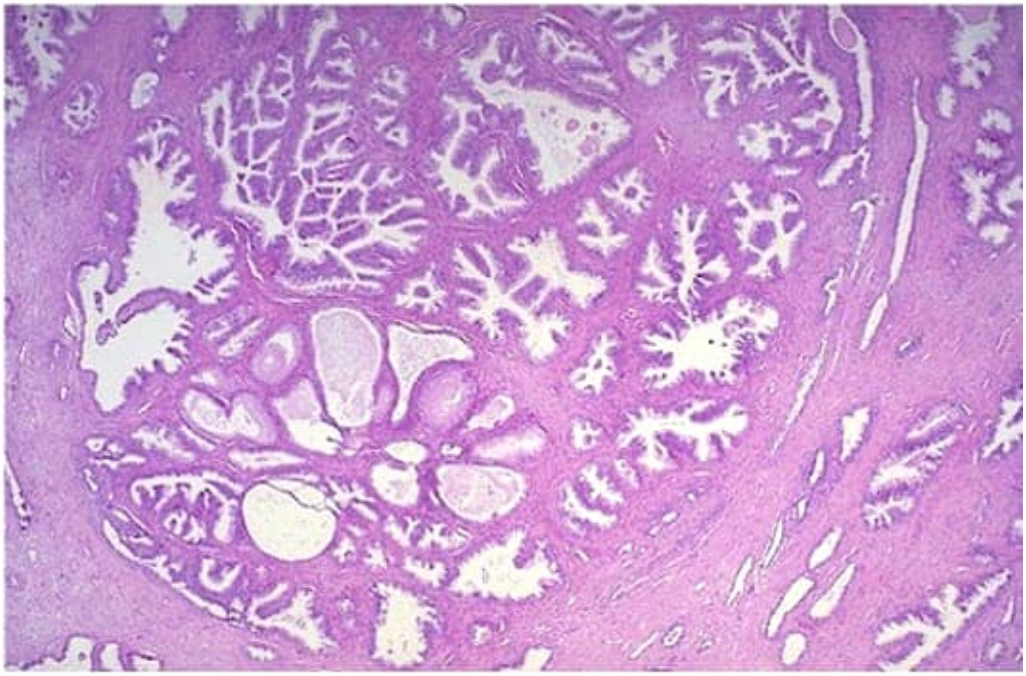
a- What is the diagnosis Recabsorption droplets in renal Tubules

b- What is the nature of this lesion protein accumulation

c- What are two other intercellularaccumulations? Melanin

Glycogen accumulation

Lipids. Accumulation



Microscopically, benign prostatic hyperplasia can involve both glands and stroma, though the former is usually more prominent. Here, a large hyperplastic nodule of glands is seen.

INDEX

N·S ①

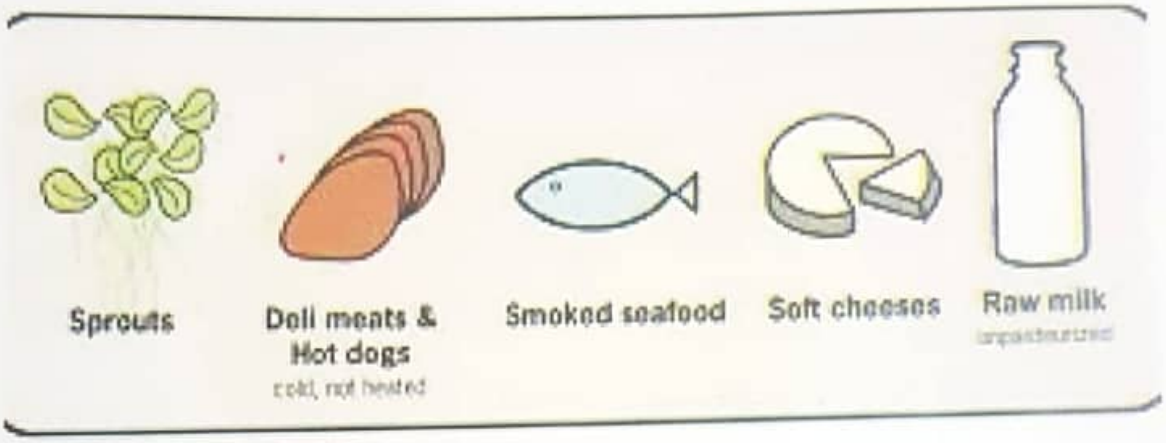
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A young lady really fond of eating cheese and other dairy products developed diarrhea. A gram positive rod growing well at low temperature was identified.



1. What could be the possible cause? (1)
2. What is the pathogenesis of this disease? (1)
3. Name one other organism which can cause diarrhea. (1)

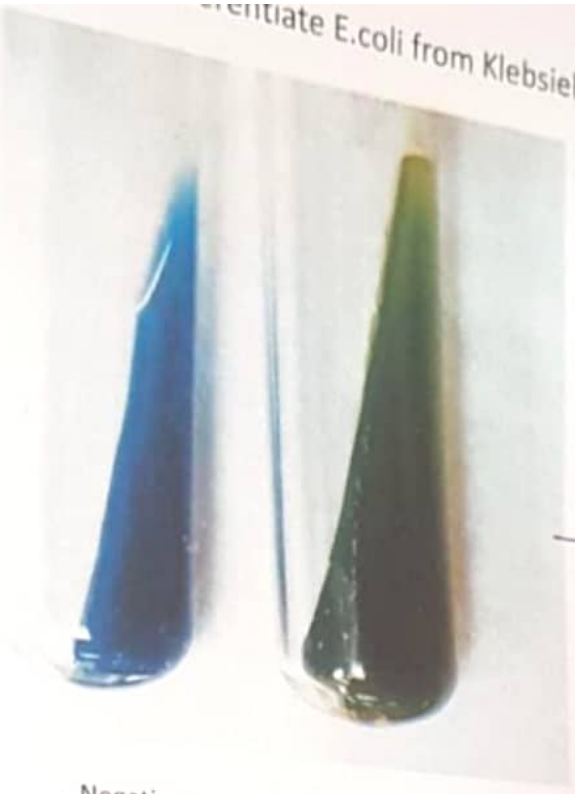
Ans:
① Listeria - monocytogene

② Pathogenesis:

Invasion by internalin or E-cadherin
↓
After entering → produce Listeriolysin
↓
escapa from phagosome
↓
grows interacellularly
↓
suppress cell-mediated immunity
↓
pre-dispose to Listeria infection
↓
can move from one cell to another causing infection.

③ Staph. aureus
Bacillus cereus
V. cholera
E. coli
Salmonella
Shigella.

...entiate E.coli from Klebsiella.



→ cibate Test

Klebsiella pneumonia ← ~~Negative~~ Positive

~~Positive~~ Negitive → E.coli

Carefully examine the photograph and answer the following questions:

TASK:

1. Identify the biochemical reaction shown in the test. 1
2. What is the principle of this test? 1
3. Which bacteria are positive for this test and which is negative for the test? 2

Q.3-

Q-1 Citrate Test → Green colour due Klebsiella pneumoniae

Blue colour due E.coli

Q-2 Principle: Test is based on Ability of The organism to utilize citrate as The only source of carbon + Ammonia.

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

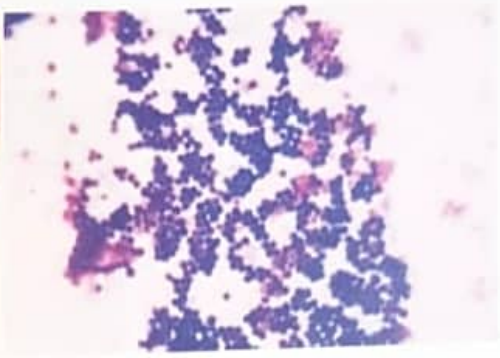
OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A young female using tampons developed signs and symptoms of shock. Her blood culture and Gram stain revealed the following results:

Blood Culture



Gram Stain

1. Name the disease and the pathogen causing it. (1)
2. Why are these colonies on blood agar yellow? (1)
3. Which virulence factor of bacteria is responsible for her condition? (1)

Q.1 - Toxic shock syndrome by Staph aeuesus.

Q.2 - Caretenoid pigment

Q.3

Components
↓
① Caretenoid pigment
② - Polysaccharide capsule
③ Techoic Acid
④ - Protein A

Toxins
↓
- Toxin shock syndrome Toxin
- Exofaliative
- Alpha Toxin
- Entero-toxin

Enzymes
↓
Lipases
Nucleases
Proteases
DNase.

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A 27 year old female developed burning micturation, frequency and low grade fever, few weeks after giving birth to her first child. She was suspected to have infection with her normal gut flora. The organism obtained is a very hardy organism, able to resist high temperature and can grow in 6.5% NaCl.

→ Salt-Tolerance Test.

1. Name the organism and its Lancefield group. (1)
2. Name other biochemical test used for its diagnosis. (1)
3. Name one other disease caused by this organism. (1)

Q- Enterococci - Group D.

Q- Bile-esculin Test

Q- UTI, endocarditis.

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A man after stabbed by robbers on his face developed swollen, lumpy jaw, having fluctuant mass with draining sinuses containing yellow colored granules. He was suspected to have a supporative granulomatous lesion.

1. Name the causative agent. (1)
2. What are its four sites of involvement? (1)
3. Name the bacteria causing caseous granulomas. (1)

Ans : Q. No. 1 Actinomyces israelli causing actinomyes.

Q. No. 2 - Cervicofacial - cervicofacial ~~israelli~~ actinomyces.
Thoracic - Thoracic actinomyces
Abdominal - Abdominal actinomyces
Genital - Genital actinomyces.

Q. No. 3 - Mycobacterium Tuberculosis.

N·S ⑥

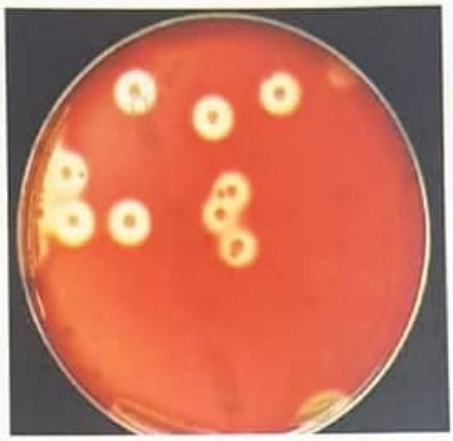
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A 13 year old child presented with high grade fever, productive cough and tender throat. Blood culture was taken. The colonies grown showed beta hemolysis and were bacitracin sensitive.



1. Name the causative agent. (0.5)
2. What are the modes of pathogenesis of this organism? (1.5)
3. Bacitracin is used to differentiate which two bacteria? (1)

Q. No. 1 Strept. pyogene

Q. No. 02

superficial infection
Invasive infection
Auto-immune infection.

Q. No. 3

Differentiate strept. pyogene and strept. agalactiae.

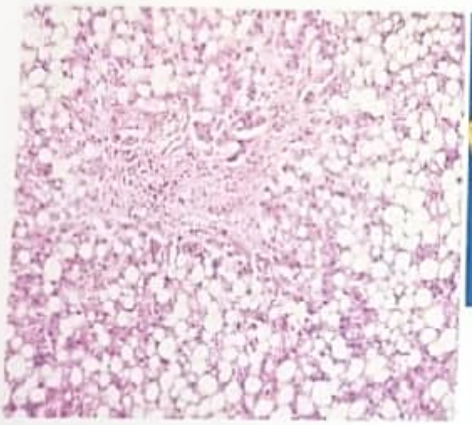
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is a photomicrograph taken from a 40 years old alcoholic man,



a- What is the diagnosis 1

b- Explain the condition of liver on gross and microscopic examination. 2

c- What is the nature of this substance accumulated. 1 TAGs

① - Fatty liver (steatosis)

② - Fatty change

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

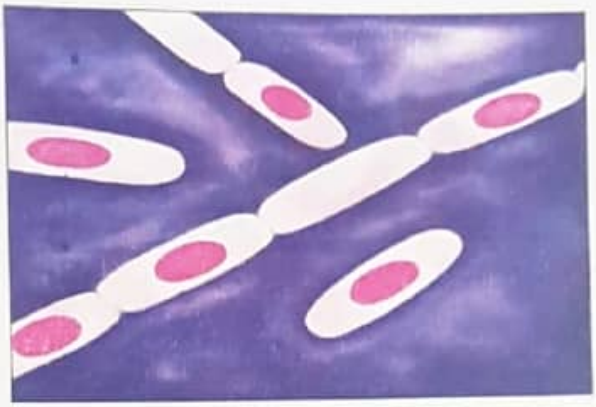
OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A patient especially fond of eating rice, presented with profuse watery diarrhea 1 day after attending an annual dinner of his office. Gram staining revealed Gram positive spore forming rods.



1. Name the causative agent. (1)
2. What are the two types of diseases caused by it? (1)
3. What are the mechanisms of two exotoxins produced by it? (1)

Q. NO·01 - Baccilus cereus causing Food poisoning

Q. NO·02 - Diarrheal type
Emetic type

Q. NO·03

↓ ①

Enterotoxin (as cholera toxin)

↓

Stimulate adenyl cyclase

↓

↑ cAMP

↓

Cl^-

↓

H_2O

↓

Diarrhea.

② - ↓

Enterotoxin (as Strepto coccal)

↓

Act as super antigen

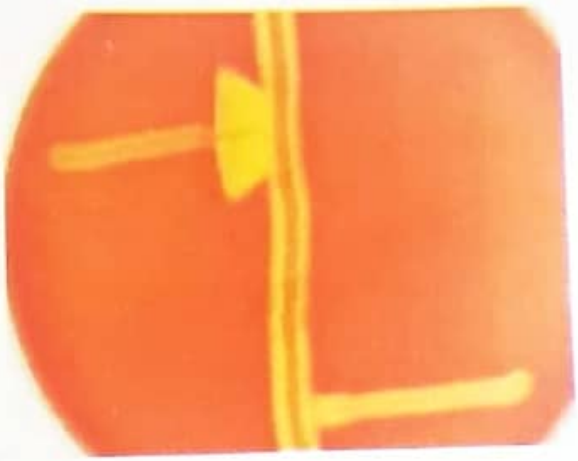
3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03 Time allowed: 04 minutes

For Candidate

A 27 year old female from a rural area, gave birth to a child who was suspected to have meningitis. The mother did not have any screening tests done during her pregnancy. The following test is positive:



1. Name the following test. (1)
2. Which Lancefield group of Beta hemolytic Streptococci is mainly responsible for causing meningitis in this age group? (1)
3. Which biochemical test is used to differentiate these bacteria from other beta hemolytic bacteria? (1)

Q. NO. 01 CAMP Test

Q. NO. 02 Strept. agalactiae.

Q_ NO. 3 Bacitracin sensitive.

N.S (2)

3rd YEAR MBBS
GENERAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

TASK

1) Examine the specimen and identify the lesion. (01)
2) Give its two common causes.(1)
3) What is gangrene and its types (2)

(a) Liquefactive necrosis

(b) Fungal Infections
bacterial Infections

Injury and infection due to loss of blood supply is called gangren.

① - Dry gangrene

② - wet gangrene

③ - Gas Gangrene

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

Sputum culture of a patient having signs and symptoms of pneumonia revealed the following results.

1. Why are these colonies green? (1)
2. Name the causative agent. (1)
3. Name the other organism producing green color on blood agar. (1)

Q-1 Due to incomplete hemolysis (alpha hemolysis) on bloo
agar plate.

Q-2 Streptococcus pneumonia

Q-3 - Streptococcus pneumonia
" viridans.

3rd YEAR MBBS
SPECIAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

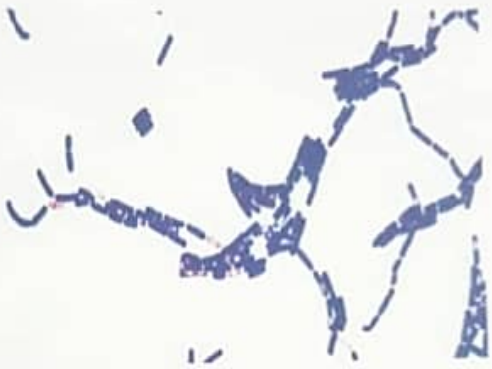
OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

Gram staining of a sputum sample of patient having fever and cough, suspected to have woolsorter's disease, revealed Gram positive rods with square ends. Blood culture revealed Non-hemolytic gray colonies with rough texture and ground glass appearance on blood agar.



1. Name the causative agent. (0.5)
2. What is the chemical nature of capsule of this organism? (0.5)
3. What is the route of transmission of this disease? (1)
4. Name two exotoxins produced by this bacteria. (1)

Q_1 Bacillus Anthracis causing cutaneous Anthrax.

Q_2 It contains D-glutamate

Q.3 Cutaneous Anthrax 95%.
Pulmonary Inhalation anthrax 5%.
Gastrointestinal Anthrax Rare.

Q.4 Protective Antigen
Edema Factor
Lethal Factor.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A young boy developed fever with chills & production of rusty sputum. He was suspected to have pneumonia. Sputum sample was cultured which revealed lancet shaped gram positive diplococcic.

1. Identify the causative agent. (0.5)
2. Is this organism alpha hemolytic or Beta hemolytic? (0.5)
3. Enumerate two biochemical test used for its diagnosis? (2)

ANS

① - Streptococcus Pneumonia

② - Alpha-hemolytic

③ - Oxidase Test -ve
Urease Test -ve
Catalase Test -ve
Methyl red +ve
citrate -ve.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A retired army officer went to the dentist for extraction of his wisdom tooth. The extraction went perfect, but 2 weeks later he started having chest pain, and high grade fever. The organism obtained was optochin resistant.

1. Name the pathogen. (1)
2. Is it alpha or beta hemolytic? (1)
3. Where is this organism present as flora? (1)

Q. No. 01 → Strept. Viridans

Q. No. 02 → Alpha-hemalytic

Q. No. 3 → Human Pharynx
Upper Respiratory Tract.

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is the photomicrograph of a foot of 70 years old diabetic man.

a- What is the diagnosis 1

b- What is the basic cause of this kind of lesion. 1

c- What are its two types 2

(Dry/wet) gangrene

Ischemia, Diabetes.

Dry gangrene

Wet gangrene

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A child presented with rigid contraction of jaw muscles, preventing mouth from opening, accompanied by rigidity of neck & trunk muscles & arching of back. History revealed circumcision done in a local clinic in unsanitary conditions, a week ago.

1. Identify the disease and the causative agent. (1)
2. What is the characteristic appearance of this organism on Gram staining? (0.5)
3. Is it an aerobe or anaerobe? (0.5)
4. What are the modes of prevention of this disease? (1)

① No. 01 Tetanus caused by clostridium Tetani

① No 02 Gram positive rod ē terminal spore at end
Tennis racket appearence

① No 3 Anaerobe

① No 4 Tetanus Toxoid + DTaP (Immunization)

Tetanus Ig + Toxoid (Trauma)
Booster

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A young man very fond of canned smoked fish and mushrooms, developed diplopia, dysphagia and descending weakness ending up in flaccid paralysis, few days after this meal.

1. Name the bacteria responsible for his condition and the disease. (0.5)
2. How does the toxin of this bacteria works? (1)
3. Can the toxin produced by these bacteria be destroyed by heating or cooking? (0.5)
4. What are two uses of this toxin? (1)

Q.No.01 → Clostridium Botilinum causing Botulism.

Q.No.02 → Botulinum Toxin (protease That cleaves protein invalue in ach-release).

↓

Absorb from gut

↓

Carried via Blood

↓

PNS (Peripheral Nervous System)

↓

Block ach-release.

Q.No.03 Yes at 85°C for 05 minutes — longer.

Q.No.04 Used to remove wrinkles on Face

Minute amount - Rx writer cramp etc

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A young lady had a septic abortion due to endometritis, ending up in development of gas gangrene. Gram positive anaerobic rod was isolated showing the following picture on blood culture.

1. What is evident in this culture plate? (1)
2. Name the causative agent. (1)
3. Name the selective and anaerobic media used to culture this organism. (1)

Q.No.02 Clostridium perfringes

Q.No.03 - selective Media - Neomycin Blood agar.

Anaerobic media- Robert cooked medium.

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is the photomicrograph showing gross appearance of spleen, with blockage of splenic artery.

a- What is the nature of this lesion. 1 Coagulative Necrosis.

b- Describe the gross appearance 1 wedge shaped Yellow infarct

c- What will be the microscopic picture of this lesion 2

Cellular outline with loss of nucli

SPECIAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

OBSERVERED STATION

Marks: 03

Time allowed: 04 minutes

For Candidate

A five year old boy developed Diffuse erythematous, maculopapular rash, erythema & edema of hands, strawberry tongue, edema of lips & erythema of oropharynx). Blood culture revealed Gram positive cocci, showing Coagulase positivity and mannitol fermentation.

1. Name the disease and the causative agent. (1)
2. What is Beta lactamase and its treatment? (2)

Q_NO.01 Kawasaki syndrome
caused by super-antigen of staph. Aureus
strept. pyoge

Q_ Beta-lactamase : enzyme produced by bacteria
provide resistance to many
antibiotic such as penicillin etc

Rx:
- Cephamycin
- Fosfomycin

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

a- What is the diagnosis 1 → Hypertrophy of muscle

b- Define it 1

c- What are the factors causing this condition. 2

→ ↑ size of cell

↑ size of organ.

→ Mechanical stretch

Agonists

Growth factors

3rd YEAR MBBS

GENERAL PATHOLOGY

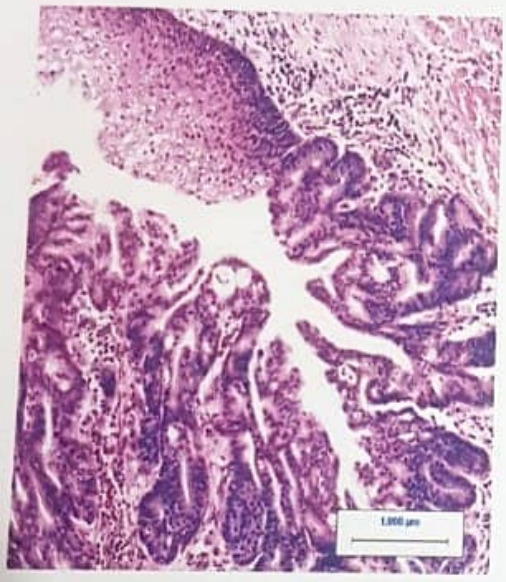
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is a photograph taken from esophageal biopsy of a 45 years old man presented with heart burn and dyspepsia. Carefully examine the slide and answer the following questions.



a- What is the diagnosis 1

b- Define it, 1

c- Give two more examples of this condition. 2

① - Metaplasia

② - Reversible change in which one cell Type is replace by other cell Type.

③. Esophagus.
Gastric Reflux
Cervix

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

This is a photomicrograph of omentum of a 45 years old man with blow to his abdomen.

a- What is this lesion 1 — Fat Necrosis.

b- What are these white areas 1 — Foci of fat necrosis with calcium soap formation

c- What are other different types of same kind of lesion. 2

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 min

This is the gross appearance of a lung of a man who was living in closed barak. He died and autopsy was done. His lung had necrosis.

a- What is the diagnosis 1

b- What is the nature of this cheesy material.

c- What are other types of similar kind of lesion.

@ Caseous Necrosis.

(b) Collection of Lysed cells and granular debris enclose with in inflamatory boaders

3rd YEAR MBBS

GENERAL PATHOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

Station (Unobserved station)

For Candidate:

Marks 04 Time Allowed 04 min

Task:

1) You are shown a specimen of brain, identify the lesion(1)
2) What is the name of disease in which this specific change can occur and define the process(02)
3) Name other causes of this type of lesion. (1)

↓ size of cell
↓ no of cell
Atrophy ↓ size of organ.

Disease: Atherosclerosis cerebrovascular disease

↓
Loss of innervation
Loss of Blood supply
Endocrine issue
↓ work load.