Solved By ; M.AMIR

Roll num ; F18-076

3rd year MBBS

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

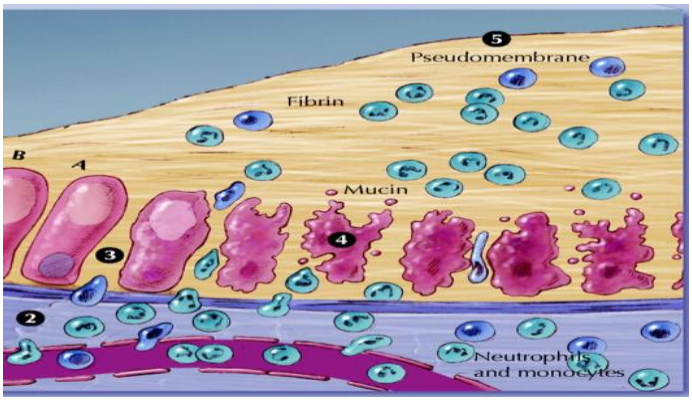
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

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)

Ans

1)C.difficile causing pseudo membranous colitis

2)gram pos rode and anaerobe

3)Non spore forming

A.nonfilamentous

.corneybacterium,listeria

B.filamentous

.nocardia

.actinomyces

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

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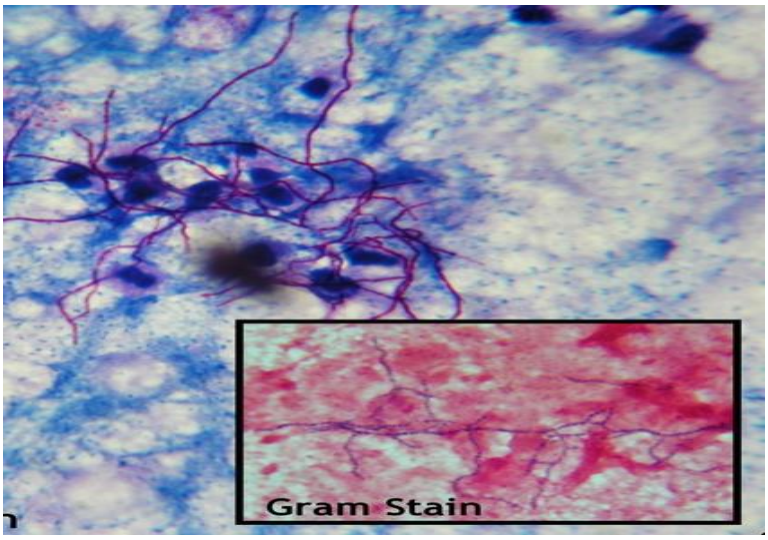
OBSERVERED STATION

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

   1)Nocardia asteroid

   2)filamentous

   3)mycobacterium leprae

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

1)actinomyces israelii

2)cervicofacial,thoracic,abdominal,genital

actinomycosis 3)myobacterium tuberculosis

3rd YEAR MBBS

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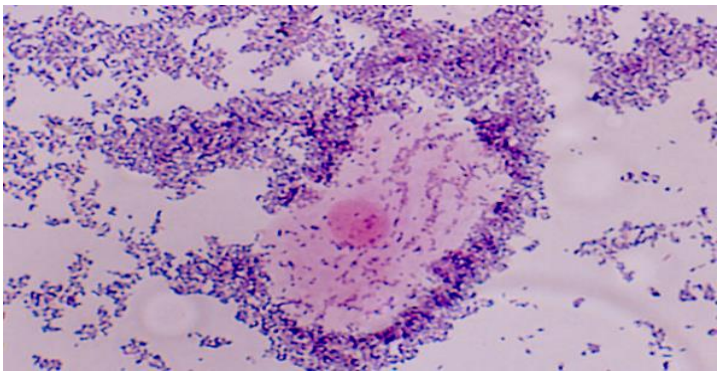
OBSERVERED STATION

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

1)clue cells ,bacterial veginosis caused by gardenella vaginalis

2)characterized by malodorous vaginal discharge and clue

cells 3)trichomnas vaginitis,yeast vaginitis

4)lactobacillus.

3rd YEAR MBBS

SPECIAL BACTERIOLOGY

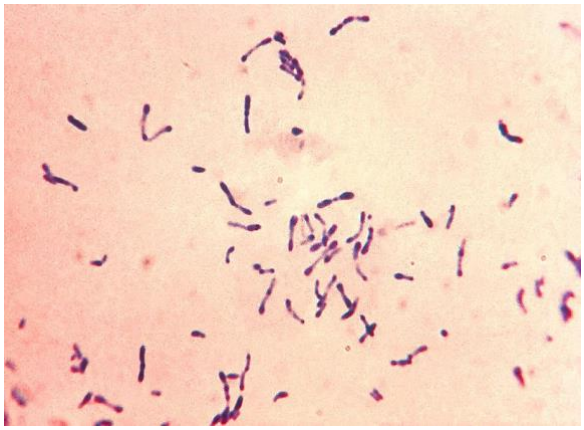
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

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

1) diphtheria by corynebacterium diphtheriae

2) granules stained red and rest of cell blue

3)tollurite blood agar,loffers serum

4)diphtheria toxin

Adp ribosylation of EF-2

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

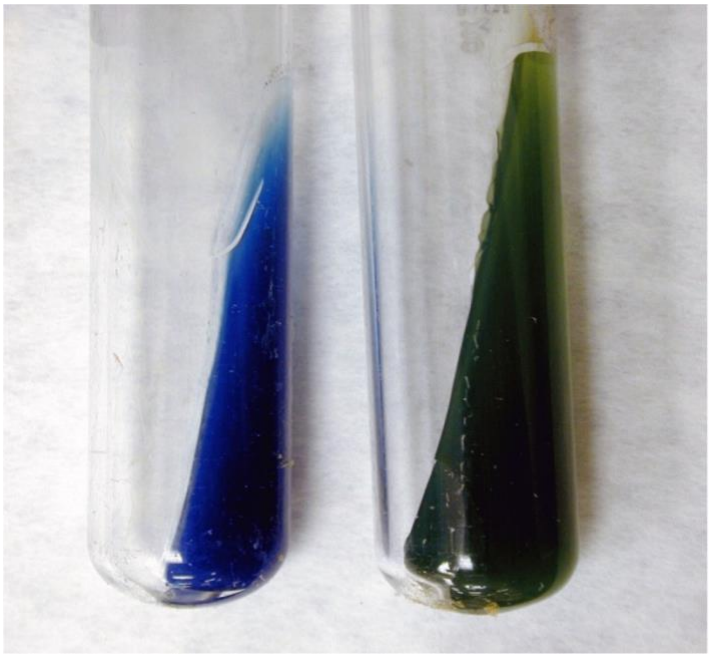
UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed: 04 min

For Candidate:

This biochemical test is used to differentiate E.coli from Klebsiella.



Positive Negative

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

Unobserved Station 1 Marks: 04 Time Allowed: 04 Minutes

For Examiner:

1. Citrate test
2. When bacteria uses citrate (carbon) and ammonium (nitrogen), medium turns alkaline as ammonia is produced from ammonium and turns medium blue.

3. Ecoli is negative and Klebsiella is positive.

3rd YEAR MBBS

GENERAL BACTERIOLOGY

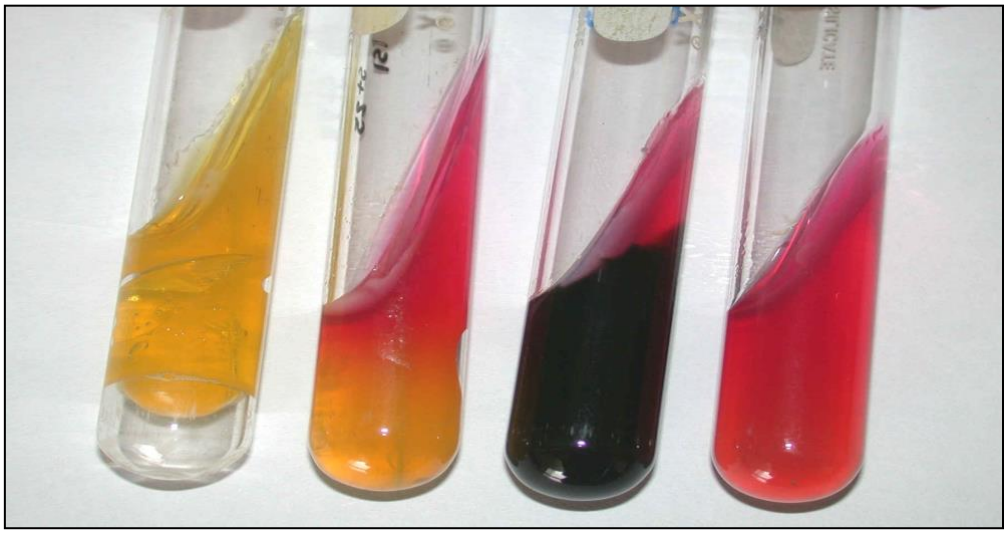
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed: 04 min

For candidate:



Carefully examine the photograph and answer the following questions

: TASK: 1.Name the media shown in the above picture.

2. What are the parts of the medium in dark pink and yellow color in 2nd tube from left?

3. What is the interpretation of the reaction shown in the 2nd tube from left?

_____

_ ___

KEY:

1. TSI: TRIPPLE SUGAR IRON, DIFFERENTIAL MEDIUM.

2. YELLOW= BUTT, RED= SLANT or acidic Butt, Alkaline slant.

3. YELLOW BUTT SHOWS GLUCOSE FERMENTATION, RED SLANT SHOWS NO FERMENTATION
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MBBS 2nd PROFESSIONAL
GENERAL PATHOLOGY AND MICROBIOLOGY

Objectively structured Performance Evaluation (OSPE)
Unobserved Station

Marks: 04 Time Allowed: 04 Minutes

For Candidate:

You are shown a culture medium plate.

Tasks:

Carefully examine the medium and answer the following questions:

1. Name the culture medium 01
2. Name the phenomena observed on the plate 02
3. Name the organism causing it.

01

Unobserved Station

Marks: 04 Time Allowed: 04 Minutes

For Examiner:

1. Blood agar plate
2. Swarming phenomena
3. *Proteus spp.*

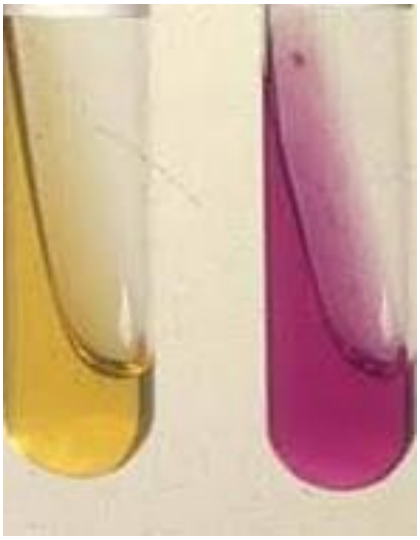
MBBS 2nd PROFESSIONAL
GENERAL PATHOLOGY AND MICROBIOLOGY

Objectively structured Performance Evaluation (OSPE)
Unobserved Station

Marks: 04 Time Allowed: 04 Minutes

For Candidate:

A middle-aged man visits his physician, complaining of long-term stomach pain. Discomfort is at its peak after meals. A radioactive diagnostic test confirms the presence of H. pylori and the following biochemical test was positive as shown in figure.



Negative Positive

Tasks:

Carefully examine the photograph and answer the following questions:

1. Identify the biochemical test. 1
2. What is the principle of this test? 1
3. Name two other organisms which give a positive result in this test. 2

Marks: 04 Time Allowed: 04 Minutes

For Examiner:

1. Urease test
2. Urease enzyme attacks urea present in the medium and forms the alkaline end product ammonia that causes the phenol red to turn to deep pink.
3. Proteus, klebsiella and helicobacter