



"Workshops on Training of Examiners for OSPE, OSCE & TOACS"

FACILITATORS: Prof. A. H. Nagi (UHS, Lahore)
 Prof. Ghazala Jaffery (SIMS, Lahore)
 Dr. Noor Fatima (FMH CMD, Lahore)
 Dr. Syed Hasan Shoaib (RMC, Rawalpindi)
 Dr. Rubina Sohail (SIMS, Lahore)

ATTENDANCE SHEET

Sr	Institutions	Name of the Faculty Member	Designation		Signature
1.	Allama Iqbal Medical College, Lahore				
2.	Nishtar Medical College, Multan	Dr. Asghar Saqib	Assistant Professor		Asghar Saqib
3.	Punjab Medical College, Faisalabad	Dr. AHSAN SALIM	APMO		AS
4.	Quaid-e-Azam Medical College, Bahawalpur	Prof. M. Tahir Alam Prof. SYED SAJJID Hussain	Prof/Head HUSSEIN PROF.		M. Tahir Alam Syed Sajid Hussain
5.	Rawalpindi Medical College, Rawalpindi	Prof. Abbas Hayat	Prof		Abbas Hayat
6.	Services Institute of Medical Sciences, Lahore.	Prof. Ghazala Jaffery	Prof of Pathology		Ghazala Jaffery 16/7/08
7.	Sheikh Zayed Medical College, Rahim Yar Khan	Prof. Dr. Muhammad Abdul Rehman	Prof of Pathology		M. A. Rehman 16/7/08
8.	CMH Lahore Medical College, Lahore.	Dr. Mohammed Dilwan	Prof & HOD Pathology		MD
9.	Lahore Medical & Dental College, Lahore	Prof. SABINA HANIF	Prof - of HOD Pathology		Sabina Hanif 16.7.08
10.	Wah Medical College, Wah Cantt	Dr. AYAZ HUSSAIN QURESHI	PROF & HOD PATHOLOGY		Ayaz Hussain
11.	Fatima Memorial Hospital College of Medicine & Dentistry Lahore	① PROF SABINA RIAZ ② PROF ABDUL HAYEE	PROF OF HISTOPATHOLOGY PROF OF HAEMAT		S Hayee
12.	College of Medicine & Dentistry University of Lahore, Lahore.	① Prof NIZAM KHALID ② Prof Dr. Zahoor ul Latif	HEAD OF DEPT PROF of Pathology HOD:		Nizam Khalid Zahoor ul Latif
13.	Faisalabad Medical College, Faisalabad	1. Dr. Sadia Hameed	Associate Prof.		Sadia Hameed
14.	Independent Medical College, Faisalabad	Prof. Dr. Anwar Naeem			Anwar Naeem Lahore Univ. Lahore
15.	Sargodha Medical College, Sargodha.	Dr. Abdur Rehman	Associate Prof.		Abdur Rehman

16 Prof AH Nagi UHS

Format (Practical Examination / OSPE)

MBBS Second Professional

GENERAL PATHOLOGY AND MICROBIOLOGY

S. No.	COMMENTS	MARKS
1.	<ul style="list-style-type: none">• OSPE 16 Stations (16 non-observed stations related to practicals (each of 04 marks) 04 minutes at each station.	64
2.	<ul style="list-style-type: none">• Observed Practical Microbiology	16
3.	<ul style="list-style-type: none">• STRUCTURED VIVA VOCE (related to curriculum)	50 25+25 (External + Internal)
4.	<ul style="list-style-type: none">• ANNUAL WORK BOOK	05 (External)
5.	<ul style="list-style-type: none">• CONTINUOUS INTERNAL ASSESSMENT	15
	Total:	150

MBBS Second Professional Examination
GENERAL PATHOLOGY AND MICROBIOLOGY
TOS for OSPE

MARKS: 80 (04 marks per station)

TOTAL STATIONS=20

Time allowed= 01 hour &20 minutes (04 minutes per station)

TABLE OF SPECIFICATIONS

- 1) GENERAL PATHOLOGY (35% weightage, 07 stations : Non observed)
 2) MICROBIOLOGY (65% weightage, 09 Non observed stations)

1) GENERAL PATHOLOGY: (07 unobserved stations)

Topic specification	No. of stations	Type of material given to students
Inflammation Acute/Chronic/ Regeneration and Repair	01	Microscopic slide/gross specimen/photograph/clinical scenario as subject material
CELL INJURY & CELL DEATH (Necrosis, Fatty liver, Hyaline change)	01	Microscopic slide/gross specimen/photograph/clinical scenario as subject material
CELLULAR ADAPTATION: (Atrophy /Hypertrophy/Hyperplasia/Metaplasia)	01	Microscopic slide/gross specimen/photograph/clinical scenario as subject material
Pigmentation/ Intracellular accumulation/ Calcification.	01	Microscopic slide/gross specimen/photograph/clinical scenario as subject material
Neoplasia	02	Microscopic slide/gross specimen/photograph/clinical scenario as subject material
Hemodynamics-Thrombosis, Embolism, Infarction, Congestion	01	Microscopic slide/gross specimen/photograph/clinical scenario as subject material

**2) MICROBIOLOGY: Total 09 stations
(09 Non observed stations)**

Topic specification	No. of stations	Type of material given to students
BACTERIOLOGY: (06 unobserved stations)	02	Culture media, Blood agar, Mac-Conkey agar, Lowenstein Jenson medium, CLED, Nutrient agar.
	01	Gram stained slide
	01	Zeihl Neelson stained slide
	01	Biochemical reactions/Motility agar/urea agar/TSI
	01	Photograph/Instrument/Report interpretation related to bacteriology
Parasitology (02 unobserved stations)	01	Photograph/Specimen of a Helminth /protozoa
	01	Microscopic slide of ovum/egg/cyst
Serology / Immunology (01 unobserved station)	01	Instrument/Micropipette/Elisa microtitre plate/Agglutination reactions/Clinical scenarios/Report interpretation.

**MICROBIOLOGY (Observed Practical)*
Supervised by the Internal and External Examiners
Any one of the following.**

Topic Specification	Task to be performed	Marks	
Examination of Urine or Stool	Examine urinary sediment/detect protein in urine/detect sugar in urine/Microscopic examination of stool	Procedure	4
		Performance	8
		Result	4
Slide Coagulase Test	Perform slide coagulase test		
Catalase Test	Perform Catalase Test		
Smear Preparation for staining	Prepare smear for staining from the given clinical specimen	Procedure	4
		Smear Marking	8
		Staining	4
		Result Interpretation	4

Procedure

*Any other procedure or task may be included.

Conduct of OSPE

- The Batches for Major viva voce and Practical / OSPE exam will be separate on any particular day and will be 25 students strong each.
- All OSPE Questions will be sent by the Department of Examinations, UHS in sealed confidential envelopes to each center clearly marked for each day of Examination and shall be kept secure in our Regional Safety Lockers at respective centres.
- For any particular day of Examination the same OSPE questions will be sent to each center to maintain standardization.
- The sealed confidential envelope containing the OSPE questions for that particular day will be collected from the UHS regional safe locker by both the Internal and External Examiners in the presence of the Principal or his nominee and the Regional Coordinator up to Two hours before the commencement of Examination.
- Each packet of examination material will contain for that particular day the complete set of sixteen non-observed OSPE questions with keys and instructions for the candidates and the examiners.
- Instruction/ questions for the candidates will be included in the examination material and should be placed on each station.
- The Practical Answer Books for non-observed stations will be sent separately to each centre one for each candidate.
- The candidates are to carry the Practical Answer Books from station to station of the non-observed stations and are to register their responses to each question at these desks separately on the same Practical Answer Sheet in the designated areas.
- Before leaving the Assessment Hall the candidate should deposit the Answer Book either at the “Marking Desk” or with the organizer as per decision of the convener.
- The candidates leaving the OSPE Hall will not mingle with candidates awaiting assessment, who are to be kept under supervision in a separate holding bay.
- Each batch of the candidates while waiting for the OSPE in the waiting area should be briefed about the OSPE process and the layout of the OSPE hall as well as the flow of candidates through the hall. They are not to bring any mobile phones or any other technology that could be used for communication within the premises of the examination centre.
- Any student found having mobile phone or any other electronic medium should be removed from the OSPE examination centre and an Unfair Means Case registered against him/ her.
- All candidates will complete a mandatory “Feedback Proforma” and deposit the same confidentially in the sealed collection boxes provided.

List of Practicals

1. Malarial Parasite.
2. Urine examination.
3. Stool examination (cyst of *E. Histolytica*, *E. coli*; Eggs of *escaris*, *H. nana*; *Entrobium vermicularis*, *Ancylostoma duodenale*).
4. Culture media (Blood Agar, Mac Conkey Agar, Chocolate Agar, Nutrient Agar, Sabourd Agar, CLED Agar, LJ Medium and Sensitivity Plate).
5. Blood culture.
6. Necrosis.
7. Gangrene.
8. Congestion and infarction.
9. Thrombosis.
10. Gram Staining.
11. ZN Staining.
12. Pigmentation.
13. Intracellular Accumulation.
14. Neoplasia; characteristics of malignancy.
15. Granuloma.
16. Anaerobic culture.
17. Acute inflammation (Acute appendicitis).
18. Chronic inflammation (Chronic cholecystitis).
19. Biochemical tests (Oxidase; Catalase; Coagulase; TSI; Urease; Citrate; Indole; Sugars).
20. Benign epithelial tumours (Papilloma, Warts).
21. Malignant: epithelial tumours (squamous cell carcinoma; adenocarcinoma; transitional cell carcinoma, basal cell carcinoma).
22. Benign connective tissue tumours (lipoma, leiomyoma).
23. Malignant connective tissue tumours (liposarcoma, leiomyosarcoma)



University of Health Sciences, Lahore
Second Professional MBBS
Annual / Supplementary Examination, 200_____
OSPE Award List for General Pathology & Microbiology

College: _____

Centre: _____

Roll No.	Non Observed Stations (Max Marks 64)																	Observed Practical (Max Marks 16)	Grand Total			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total	Total	Figure	Words		

Examiners: Internal _____

External _____

MBBS Second Professional Examination

GENERAL PATHOLOGY AND MICROBIOLOGY

Objectively Structured Performance Evaluation (OSPE)

Model Paper*

*** This is a Model only and does not CONFORM to the Table of Specification EXACTLY provided earlier in this Document.**

TOTAL STATIONS=16

TOTAL MARKS: 64 (04 marks per station)

Time allowed= 01 hour & 4 minutes (04 minutes per station)

MODEL PAPER

TABLE OF SPECIFICATIONS

- 1) GENERAL PATHOLOGY (35% weightage, 07 stations : all unobserved)**
- 2) MICROBIOLOGY (65% weightage, 09 stations : all unobserved)**

STATION#01 (UNOBSERVED STATION)

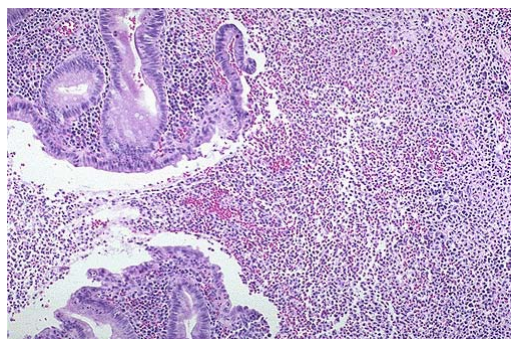
For Organizer:

SUBJECT MATERIAL: Microscopic slide showing features of acute appendicitis.

For Candidate:

Marks :04

Time Allowed:04 minutes.



TASK:

- 1) Examine the focused slide and identify it. (01)
- 2) Name the type of INFLAMMATION. (01)
- 3) Name the cell characteristic of this type of inflammation. (01)
- 4) Give TWO outcomes of this type of inflammation. (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Section of appendix showing acute inflammation (Acute appendicitis).	01
2.	Acute inflammation.	01
3.	Polymorphonuclear Neutrophil.	01
4.	Complete resolution, Fibrosis, Chronic inflammation.	01

STATION#02 (UNOBSERVED STATION)

For organizer:

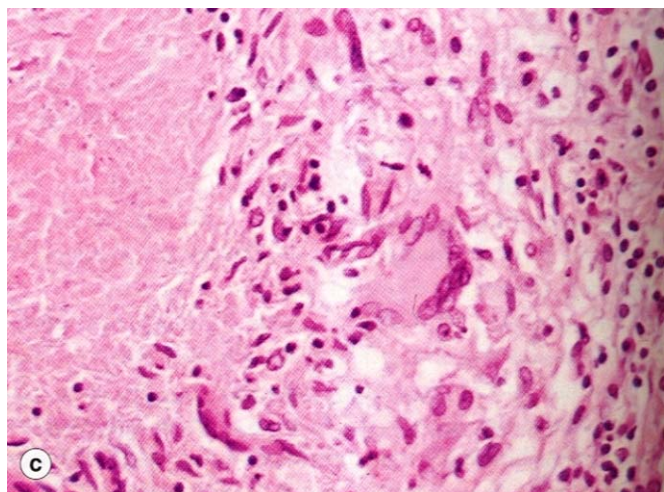
TOPIC SPECIFICATION: GENERAL PATHOLOGY/CELL INJURY AND CELL DEATH/NECROSIS

SUBJECT MATERIAL: Microscopic slide (or photograph) showing a GRANULOMA with CASEOUS NECROSIS in the centre.

For Candidate:

Marks :04

Time Allowed:04 minutes



TASK:

- 1) Examine the focused microscopic slide and identify the lesion. (01)
- 2) Name the type of necrosis seen in the left half. (01)
- 3) Name TWO other types of necrosis. (02)

For Examiner:

Sr.No	Key	Max.Marks
1.	Granuloma.	01
2.	Caseous necrosis	01
3.	Coagulative necrosis, liquefactive necrosis ,fat necrosis	02

STATION#03 (UNOBSERVED STATION)

For Organizer:

SPECIFICATION: GENERAL PATHOLOGY/CELLULAR ADAPTATIONS.

SUBJECT MATERIAL: Gross specimen or photograph of heart showing HYPERTROPHY.

For Candidate:

Marks :04

Time Allowed:04 minutes.



TASK:

Examine the specimen and answer the following questions.

- 1) **Is the heart enlarged? Name the process of cellular adaptation that has occurred and define it.** (02)
- 2) **Name TWO other types of cellular adaptation.** (02)

Sr.No	Key	Max.marks
1.	Yes. HYPERTROPHY: An increase in the size of cells, resulting in an increase in the size of the organ.	02 (0.5+01+1.5)
2.	Hyperplasia, Atrophy, Metaplasia.	02

STATION#04 (UNOBSERVED STATION)

For Organizer:

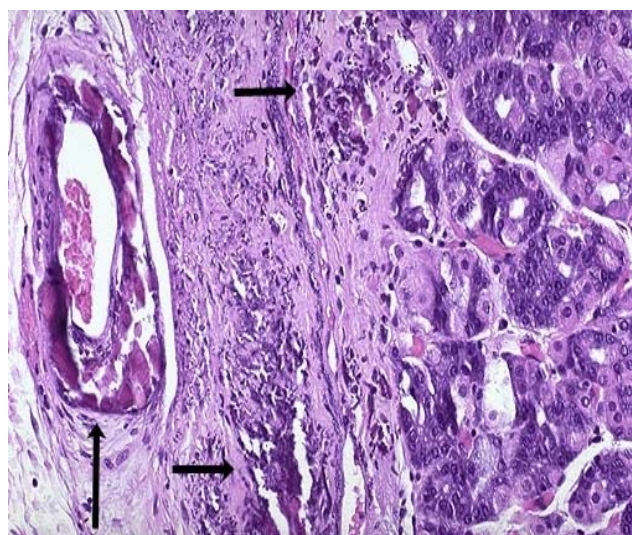
TOPIC SPECIFICATION: GENERAL PATHOLOGY/CALCIFICATION.

SUBJECT MATERIAL: Microscopic slide or photograph of microscopic section of stomach along with blood vessel showing DYSTROPHIC CALCIFICATION

For Candidate:

Marks :04

Time Allowed:04 minutes.



TASK:

- 1) Examine the focused slide and identify. (01)
- 2) Name TWO organs where metastatic calcification commonly occurs. (02)
- 3) What is the common cause of metastatic calcification? (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Calcification(DYSTROPHIC)	01
2.	Kidney, blood vessels	02
3.	Abnormal calcium metabolism	01

STATION#05 (UNOBSERVED STATION)

For Organizer:

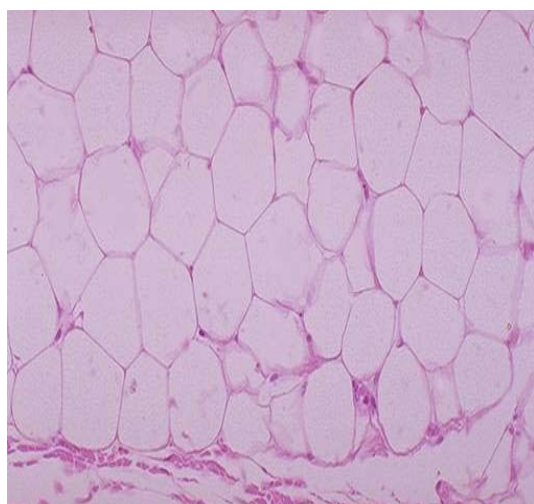
TOPIC SPECIFICATION: GENERAL PATHOLOGY/NEOPLASIA

SUBJECT MATERIAL: Microscopic slide or photograph of LIPOMA along with clinical scenario.

For Candidate:

Marks :04

Time Allowed:04 minutes.



TASK:

Carefully read the clinical scenario and:

- 1) Examine the focused microscopic slide and identify. (01)
- 2) Is it a benign or malignant lesion? (01)
- 3) Name ONE other painless soft tissue swelling. (01)
- 4) Name the malignant form of this lesion. (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Lipoma	01
2.	Benign	01
3.	Fibroma.	01
4.	Liposarcoma	01

STATION#06 (UNOBSERVED STATION)

For Organizer

TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/CULTURE MEDIA

SUBJECT MATERIAL: Lowenstein Jenson (LJ) Medium Bottle

For candidate:

Marks :04

Time Allowed:04 minutes.



TASK:

- 1) IDENTIFY THE GIVEN MEDIUM? (01)
- 2) WHICH DYE IS ADDED TO THIS MEDIUM? (01)
- 3) WHAT IS THE USE OF THIS MEDIUM? (01)
- 4) GROWTH OF THE SPECIFIC ORGANISM WILL BE OBSERVED AFTER HOW MUCH TIME ON THIS MEDIUM? (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Lowenstein Jenson Medium	01
2.	Malachite Green	01
3.	Medium is used for growth of Mycobacteria	01
4.	03-04 weeks	01

STATION#07 (UNOBSERVED STATION)

For Organizer:

TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/CULTURE MEDIA

SUBJECT MATERIAL: Salmonella Shigella (SS) Agar plate inoculated with proteus species showing Black colonies.

For candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) IDENTIFY THE MEDIUM AND GROWTH. (01)
- 2) NAME TWO ORGANISMS THAT WILL GIVE SUCH BLACK COLONIES? (02)
- 3) NAME A SINGLE TEST THAT CAN HELP TO DIFFERENTIATE BETWEEN THESE TWO ORGANISMS. (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Salmonella Shigella (SS) agar plate with H ₂ S producing colonies.	01
2.	Salmonella and Proteus.	02
3.	UREASE TEST: Positive for proteus; Negative for Salmonella.	01

STATION#08 (UNOBSERVED STATION)

For Organizer:

TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/GRAM STAINING

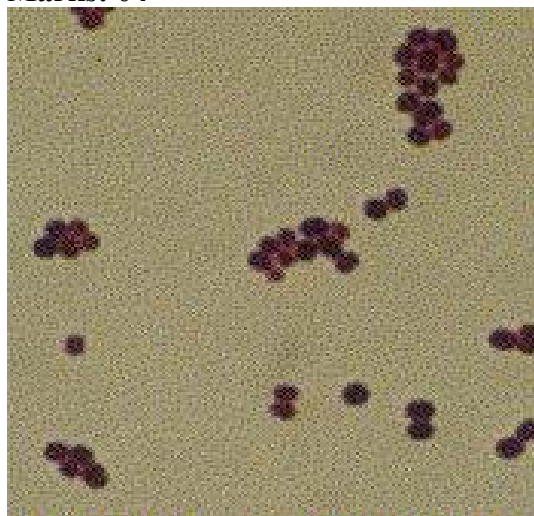
SUBJECT MATERIAL:

Gram stained smear showing gram –positive cocci in grape-like clusters.

For Candidate:

Marks: 04

Time Allowed: 04 minutes



TASK:

Examine the focused slide and answer the following questions:-

- 1) Is the organism Gram positive or negative? (01)
- 2) Give the morphology and arrangement of the bacteria seen in the smear. (01)
- 3) If on BLOOD AGAR culture the organism yields golden-yellow (Beta-hemolytic) colonies, What is the likely organism? (01)
- 4) WHAT TEST WILL YOU PERFORM TO CONFIRM THE ISOLATE? (01)

For Examiner:

Sr.No	Key	Max.marks
1.	Gram – positive.	01
2.	Gram positive cocci in grape like clusters.	01
3.	Staphylococcus – Aureus.	01
4.	Coagulase test (Staphylococcus is coagulase positive)	01

STATION#09 (UNOBSERVED STATION)

For Organizer:

TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/ZN STAINING

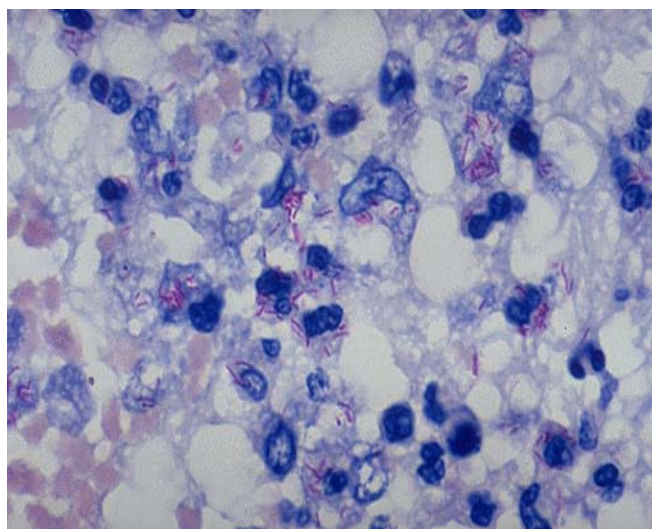
SUBJECT MATERIAL:

Sputum smear stained with Zeihl Neelson (ZN) stain showing Acid fast Bacilli (AFB).

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) Examine the slide and give microscopic findings. (1.5)
- 2) Name THREE organisms with such characters, (1.5)
- 3) What should be done to confirm the diagnosis in such patients? (01)

For Examiner:

Sr.No	Key	Max.marks
1.	ZN stained slide showing acid fast bacilli (AFB) as bright pink rods.	1.5
2.	Mycobacterium Tuberculosis, Mycobacterium bovis, Mycobacterium Kansai.	1.5
3.	Culture on Lowenstein Jenson (LJ) Medium.	01

STATION#10 (UNOBSERVED STATION)

For Organizer:

Marks: 04

Time Allowed: 04 minutes.

TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/BIOCHEMICAL REACTIONS.

SUBJECT MATERIAL:

TSI (Triple Sugar Iron) showing KA⁺ reactions.

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) Report the reactions observed in the provide TSI medium? (02)
- 2) What is the likely organism that would give these reactions? (01)
- 3) Is this organism motile or non-motile? (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Alkaline slant, Acidic butt, H ₂ S positive, Gas negative.	02
2.	Salmonella typhi.	01
3.	Motile.	01

STATION#11 (UNOBSERVED STATION)

For Organizer:

Marks: 04

Time Allowed: 04 minutes.

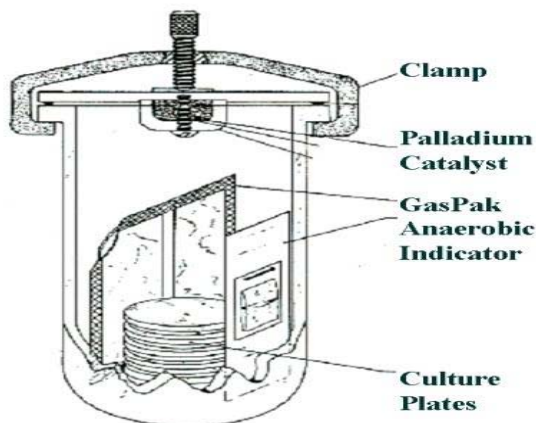
TOPIC SPECIFICATION: MICROBIOLOGY/BACTERIOLOGY/ INSTRUMENT

SUBJECT MATERIAL: ANAEROBIC JAR

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) Identify the instrument. (01)
- 2) What is placed under the lid? (01)
- 3) Name the indicator used. (01)
- 4) Name TWO organisms that require anaerobic growing environment for growth. (01)

For Examiner:

Sr.No	Key	Max.marks
1.	Anaerobic jar.	01
2.	Catalyst.	01
3.	Methylene blue indicator.	01
4.	Clostridia, Anaerobic cocci, Bacteroides.	01

STATION#12 (UNOBSERVED STATION)

For Organizer:

Marks: 04

Time Allowed: 04 minutes.

TOPIC SPECIFICATION: MICROBIOLOGY/PARASITOLOGY/HELMINTHS

SUBJECT MATERIAL: SPECIMEN (or photograph) OF ASCARIS LUMBRICOIDES.

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) Identify the organism. (01)
- 2) Give morphological characters of this organism.(01)
- 3) What illness does it cause in human beings? (01)
- 4) What is the route of transmission? (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Adult of Ascaries Lumbricoides.	01
2.	Round worm with anterior posterior end .GIT is well formed.	01
3.	Ascariasis. Oral route.	01
4.		01

STATION#13 (UNOBSERVED STATION)

Marks: 04

Time Allowed: 04 minutes.

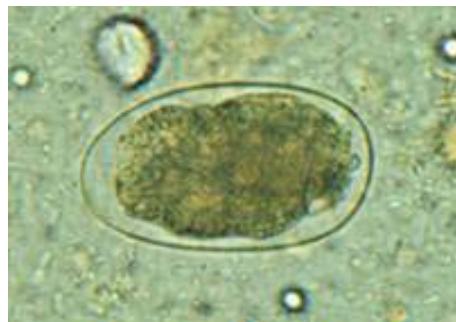
TOPIC SPECIFICATION: MICROBIOLOGY/PARASITOLOGY/CYST/OVA/EGG OF PARASITES.

SUBJECT MATERIAL: MICROSCOPIC SLIDE (or photograph) OF EGG OF HOOKE WORM.

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK: Carefully examine the given slide of stool and:

- 1) Give the microscopic finding and name the organism. (01)**
- 2) Write TWO characteristic features of the egg seen. (02)**
- 3) Give ONE complications that can occur in persons infected with this organism? (01)**

For examiner:

Sr.No	Key	Max.Marks
1.	Egg of Hooke worm.	01
2.	Thin egg shell with segmented ovum.	02
3.	Iron deficiency anemia	01

STATION#14 (UNOBSERVED STATION)

For Organizer:

Marks: 04

Time Allowed: 04 minutes.

TOPIC SPECIFICATION: MICROBIOLOGY/ MYCOLOGY

**SUBJECT MATERIAL:
SEBOURAU'S MEDIUM.**



For Candidate:

Marks: 04

Time Allowed: 04 minutes.

TASK:

- 1) Identify the medium. (01)
- 2) What is the use of this medium? (01)
- 3) Name FOUR fungi that can grow on this medium. (02)

For Examiner:

Sr.No	Key	Max.Marks
1.	Sebouraud's medium.	01
2.	Growth of fungi.	01
3.	Candida albicans, Aspergillus species, Tricophyton, Epidermatophyton.	02

STATION#15 (UNOBSERVED STATION)

Marks: 04

Time Allowed: 04 minutes.

TOPIC SPECIFICATION:

MICROBIOLOGY/ MYCOLOGY.

SUBJECT MATERIAL:

CLINICAL SCENARIO and slide of growth obtained after culture of urine of the subject patient.

A 60 year old diabetic male is catheterized for two weeks. His urine has become turbid and whitish. His urine was cultured and the given slide was prepared from the obtained growth.

For Candidate:

Marks: 04

Time Allowed: 04 minutes.

TASK:

Carefully read the given clinical scenario:

A 60 year old diabetic male is catheterized for two weeks. His urine has become turbid and whitish. His urine was cultured and the given slide was prepared from the obtained growth.

Examine the slide and answer the following questions:

- 1) Give microscopic findings. (01)
- 2) What is the likely organism? (01)
- 3) Why infection with this organism is common in diabetes mellitus? (01)
- 4) Name TWO other parts of the body where infection with this organism can occur. (01)

For Examiner:

Sr.No	Key	Max.Marks
1.	Budding yeast cells.	01
2.	Candida.	01
3.	Diabetics have lower immunity so they are more susceptible to such infections.	01
4.	Mouth, Vagina in females.	01

STATION#16 (UNOBSERVED STATION)

For Organizer:

Marks: 04

Time Allowed: 04 minutes.

TOPIC SPECIFICATION:

MICROBIOLOGY/ SEROLOGY/DEVICE

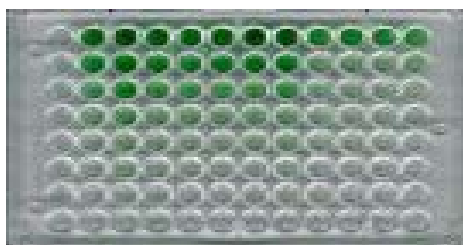
SUBJECT MATERIAL:

96 WELL ELISA MICROTITRE PLATE.

For Candidate:

Marks: 04

Time Allowed: 04 minutes.



TASK:

- 1) Identify the given device used in a serological technique. (01)
- 2) Name the serological technique in which it is used. (01)
- 3) Give FOUR clinical applications of this technique. (02)

For Examiner:

Sr.No	Key	Max.Marks
1.	ELISA microtitre plate. Enzyme Linked Immunosorbant Assay (ELISA)	01
2.	To detect antigen/antibodies of hepatitis B virus, to detect antibodies against hepatitis C virus, HIV, Cytomegalovirus	01
3.	(CMV), Hepatitis A virus.(0.5 marks each)	02