STRUCTURED PERFORMANCE EVALUATION (OSPE)

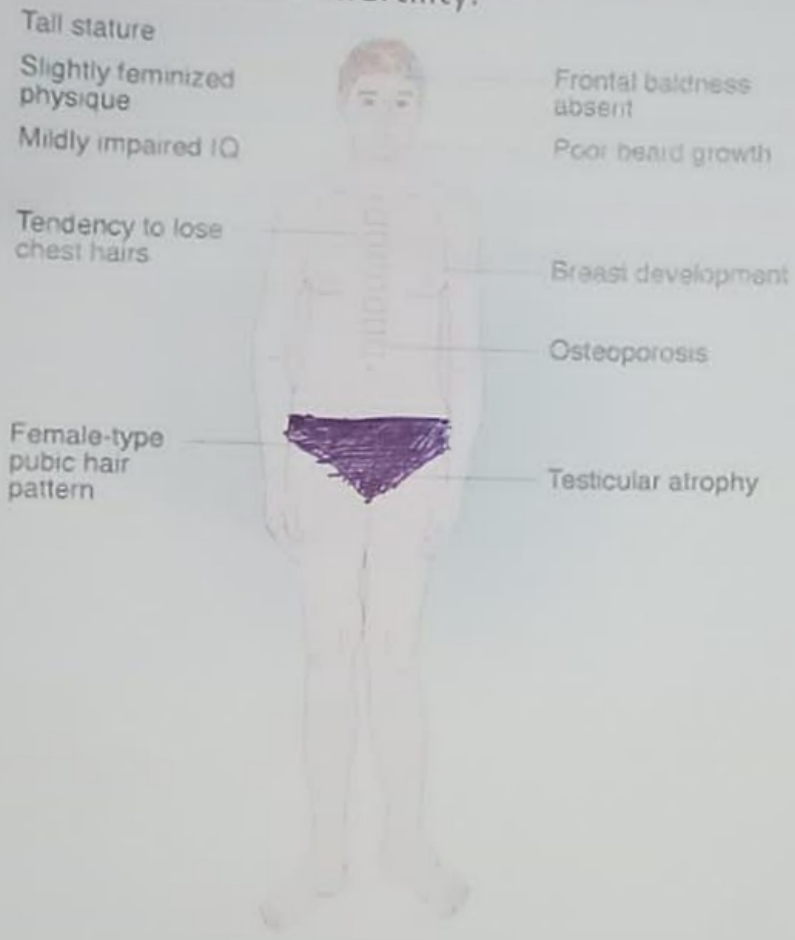
UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

A male patient comes to genetics OPD as he has a distinctive body habitue, with increase in length between soles and pubic bones. There is reduced facial, body and pubic hair. The patient has hypogonadism and gynecomastia and infertility.



1. Name the cytogenetic disorder most likely present in this patient. (1) 47XXY
2. Give its karyotype and underlying defect that results in this karyotype. (1)
3. What is Lyon hypothesis? (2)

47XXY.

KEY

1. Klinefelter syndrome
2. 47XXY
   a. Non-disjunction of sex chromosomes during meiosis. The extra X may be of maternal or paternal origin. Advanced maternal age and history of irradiation in either parent may contribute.
   b. 15% may show mosaic patterns, including 46XY/47XXY 47 XXY/48XXXY
   Estrogen level estimation may be of great help in diagnosis as high estrogen can cause similar symptoms.
3. Lyon hypothesis. It states that *(1)only one of the X chromosomes is genetically active, (2) the otherX of either maternal or paternal origin undergoes heteropyknosisand is rendered inactive, (3) inactivation of either the maternal or paternal X occurs at random among all the cells of the blastocyst on or about day 5.5 of embryonic life, and (4) inactivation of the same X chromosome persists in all the cells derived fromeach precursor cell.*

GENERAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04 Time Allowed 04 m

For Candidate:

A child 3 years old is presented in general physician clinic with nocturnal anal pruritis and sleeplessness in night. The physician advised stool examination and perianal cellophane tape preparation. When the microbiologist called the patient for peri anal scotch tape preparation, found organism as shown in the diagram..

1. What is the name of this organism? 2

2. What is the route of transmission of this organism? 2

Key:

1. *Enterobius vermicularis*

2. Feco- oral route

MBBS 2ND PROFESSIONAL

GENERAL PATHOLOGY AND MICROBIOLOGY

Objectively structured Performance Evaluation (OSPE)

Marks: 04

Time Allowed: 04 Minutes

For Candidate:

This lesion appear on face and extremities weeks to months after bite of the sandfly shown above in the resident of a tropical country resident adult male. The blood picture shows ingested bodies (marked with arrow heads) in the leucocytes.

Tasks:

1. What is the name of this parasite? 1

2. Which for of this parasite is present in the leukocyte? 1

3. LD bodies is the abbreviation of .....?

KEY

1. Leishmania

2. Amastigote Form

3. Leishman-Donovan (LD) Bodies

3rd YEAR MBBS

PARASITOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OS

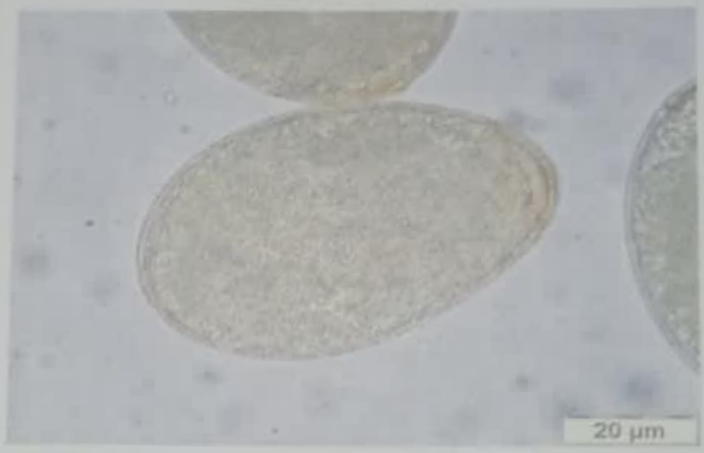
UNOBSERVERED STATION

For Candidate:

Marks 04

Time A

For Candidate:



Tasks:

1. Which parasite has this operculated ovum?
2. Which anemia is caused by this organism ?

Key:

1. Diphylobothrium latum(Fish tape worm)
2. Megaloblastic anemia

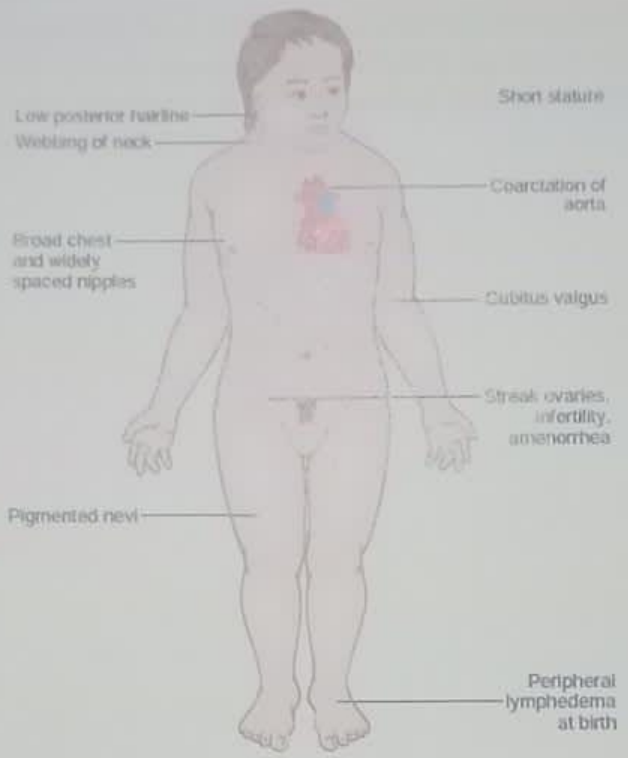
3rd YEAR MBBS
GENERAL BACTERIOLOGY
OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 mi



Above is shown a pictorial representation of a female with short stature, webbed neck, cubitus valgus, cardiovascular malformations, amenorrhea, lack of secondary sexual characteristics and fibrotic ovaries.

1. What genetic syndrome is she suffering from? (2)
2. What is the karyotype and its possible explaination.

KEY

1. Turner syndrome
2. *The common feature of the structural abnormalities is to produce partial monosomy of the X chromosome.* In order offrequency, the structural abnormalities of the X chromosome include (1) anisochromosome of the long arm,46,X,i(X)(q10) resulting in the loss of the short arm; (2) deletion of portions of both long and short arms, resultingin the formation of a ring chromosome, 46,X,r(X); and (3) deletion of portions of the short or long arm,46X,del(Xq) or 46X,del(Xp).
   The mosaic patients have a 45,X cell population along with one or more karyotypically normal or abnormal cell types. Examples of karyotypes that mosaic Turner females may have are the following: (1) 45,X/46,XX; (2)45,X/46,XY; (3) 45,X/47,XXX; or (4) 45,X/46,X,i(X)(q10).

MBBS 2ND PROFESSIONAL
GENERAL PATHOLOGY AND MICROBIOLOGY

Objectively structured Performance Evaluation (OSPE)

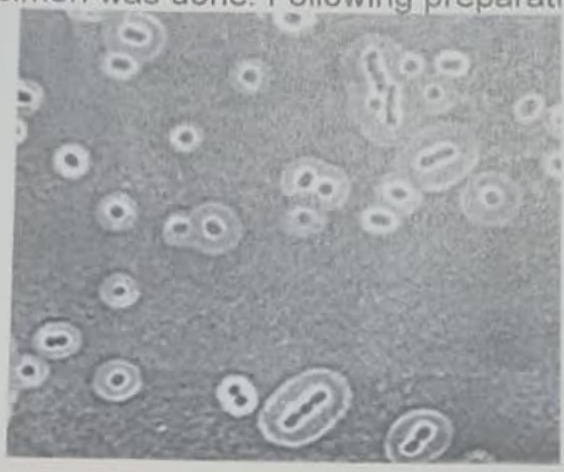
Unobserved Station

Marks: 04

Time Allowed: 04 Minutes

For Candidate:

A 43-year-old homeless, HIV-positive male, was brought to an emergency department after he was discovered appearing confused in park. He had a temperature of 101°F, with and nuchal rigidity. CSF culture of the specimen was done. Following preparation was positive.



Tasks:

1. Name the organism. 2
2. Which stain is used in this diagram ? 2

3. Key:

4. Cryptococcus neoformans.
5. India ink staining of CSF.

3rd YEAR MBBS

Parasitology

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

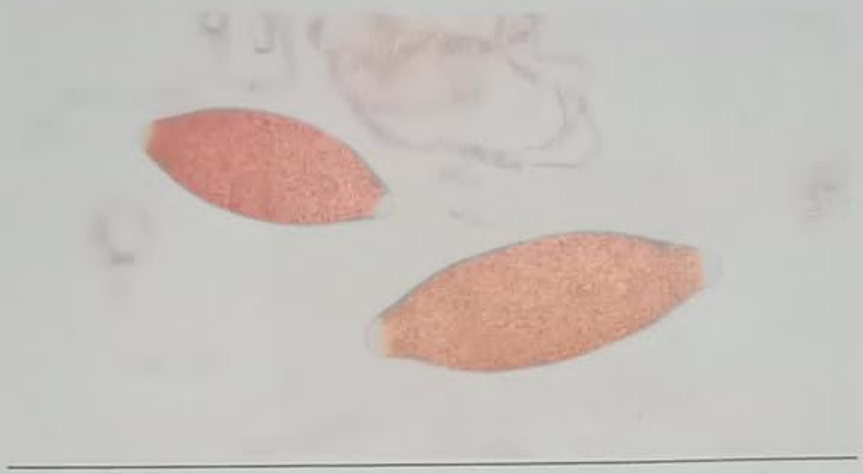
UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

For Candidate



Tasks:

1. Name the parasite having this ovum?
2. What are the complications caused by its infection?

Key:

1. Trichurus trichura
2. Acute appendicitis,Diarrhoea, Rectal prolapsed,Abdominal pain.

3rd YEAR MBBS

GENERAL BACTERIOLOGY

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

For Candidate:

The patient is presented in outdoor with symptoms of urinary tract infection. His culture and sensitivity is negative for bacterial infection. He has only the history of developing skin itching after taking bath in a pond of his village. In urine examination, eggs were found that had characteristic spine shown in the fig A.

Tasks:

1. What is the causative agent of this infection? 1
2. What is this itch called that develops after taking bath in some pond or pool? 2
3. Name the tumour caused by this parasite. 1

4. Key:

5. 1. *Schistosoma hematobium*
6. 2. Swimmers itch
7. 3. Bladder carcinoma

3rd YEAR MBBS

Parasitology

OBJECTIVE STRUCTURED PERFORMANCE EVALUATION (OSPE)

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

For Candidate:

Tasks:

The patient shown in the picture has giant swelling on leg. This condition is most probably because of a parasite shown above.

1. What is the name of this parasite? 1
2. What is this condition shown in picture called? 1
3. What is the vector and intermediate host of this parasite? 2

Key:

1. *Wuchereria bancrofti*
2. Elephantiasis
3. Mosquito (Culex & Anopheles)

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

UNOBSERVERED STATION

For Candidate:

Marks 04

Time Allowed 04 min

A child brought to a paediatrician is mentally retarded, flat facial profile with broad epicanthal fold, simian creases, abundant neck skin, umblical hernia, hypotonia with increased gap between 1st and 2nd toe.

1. What genetic disorder does this child have? (2)
2. Briefly discuss the clinical problems associated with Down syndrome. (2)

KEY

1. Down syndrome/ Trisomy 21
2. ASD
   VSD
   Atriventricular valve malformation
   Esophageal atresia
   Atresia of small bowel
   Increased risk of acute leukemias
   Neuropathologic changes
   Abnormal immune responses

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

UNOBSERVERED STATION

For Candidate:

Marks 04

min

Time Allowed: 04

A twelve 12 years old patient presented in emergency with high grade fever and chills. He had history of alternate day fever and generalized weakness. Laboratory diagnosis revealed slight anemia, thrombocytopenia and disturbed liver function tests. A thin smear stained by Giemsa stain showed Signet rings and banana shaped bodies inside RBCs.

Tasks:

Carefully examine the given slide / photograph and answer the following questions:

1. What is your diagnosis? 02

2. What are the complications caused by this specie? 02

Key:

1. Plasmodium falciparum malaria. (+) 0.5

2. Cerebral malaria and black water fever. (+) 1.5