



- (vii) Which sperm abnormality is characterized by the complete absence of sperm in the ejaculate? Choose the correct answer
- a) Oligospermia  
b) Asthenospermia  
c) Azoospermia  
d) Teratospermia
- (viii) How does oligospermia differ from azoospermia?
- a) Oligospermia is the presence of a low sperm count, while azoospermia is the complete absence of sperm in the ejaculate  
b) Oligospermia is the complete absence of sperm in the ejaculate, while azoospermia is the presence of a low sperm count  
c) Oligospermia and azoospermia are two terms for the same condition  
d) Oligospermia and azoospermia both involve abnormal sperm morphology
- (ix) Select Which part of a sperm cell plays a crucial role in penetrating the zona pellucida of the egg during fertilization?
- a) Nucleus  
b) Tail (flagellum)  
c) Acrosome  
d) Mitochondria
- (x) Isosthenuria is a condition in which urine specific gravity remains relatively constant. choose common underlying cause of isosthenuria?
- a) Dehydration  
b) Overhydration  
c) Kidney dysfunction  
d) Urinary tract infection
- (xi) Relate the following is NOT a typical component of urine?
- a) Glucose  
b) Urea  
c) Creatinine  
d) Hemoglobin
- (xii) Which of the following is NOT typically assessed in a microscopic examination of urine?
- a) Red blood cells  
b) White blood cells  
c) Bacteria  
d) Glucose
- (xiii) Why is AFB staining used in sputum testing?
- a) To check for the presence of viral infections  
b) To identify fungal spores in sputum  
c) To detect bacteria that resist decolorization by acid during staining  
d) To measure the pH of sputum samples
- (xiv) Which of the following components is NOT typically found in a healthy stool?
- a) Water  
b) Fiber  
c) Red blood cells  
d) Bacteria
- (xv) What might cause pale or clay-colored stool in adults?
- a) High fiber diet  
b) Dehydration  
c) Liver or bile duct issues  
d) Spicy foods

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe the composition of benedicts reagent (3)
3. Differentiate between trophozoite and cyst (3)
4. Explain the procedure of saline technique (3)
5. Describe the collection procedure of sputum (3)
6. Patient having urine specific gravity low. Explain the condition on the basis of hydration status with diabetes insipidus (3)

OR

Explain the significance of specific gravity in urine analysis and how it relates to the concentration of solutes and hydration. (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. List and briefly describe three common pathological conditions that can be diagnosed through urine analysis. (5)
8. Discuss the principle and procedure of benzidine test for occult blood test of feces. (5)
9. Differentiate between transudates and exudates. (5)
10. Discuss the male factors of infertility. (5)
11. Analyze the unstained microscopic examination of sputum and their clinical significance. (5)
12. A patient came with black tarry stool. Analyze the possible causes and features in routine stool examination. (5)

**OR**

Differentiate the CSF findings between bacterial and tubercular meningitis. (5)

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