

CBSE | DEPARTMENT OF SKILL EDUCATION

MEDICAL DIAGNOSTICS (SUBJECT CODE: 828)

Blue-print for Sample Question Paper for Class XI (Session 2023-2024)

Max. Time: 3 Hours

Max. Marks: 60

PART A - EMPLOYABILITY SKILLS (10 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	
1	Communication Skills - III	1	1	2
2	Self-Management Skills - III	2	1	3
3	Information and Communication Technology Skills - III	1	1	2
4	Entrepreneurial Skills - III	1	1	2
5	Green Skills - III	1	1	2
TOTAL QUESTIONS		6	5	11
NO. OF QUESTIONS TO BE ANSWERED		Any 4	Any 3	07
TOTAL MARKS		1 x 4 = 4	2 x 3 = 6	10 MARKS

PART B - SUBJECT SPECIFIC SKILLS (50 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANS. TYPE QUES.- I	SHORT ANS. TYPE QUES.- II	DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	3 MARKS EACH	4 MARKS EACH	
1	INVESTIGATION: URINE AND FACES	13	1	1	3	18
2	BODY FLUIDS	9	2	1	1	13
3	HISTOPATHOLOGY	10	2	1	1	14

TOTAL QUESTIONS	32	5	3	5	45
NO. OF QUESTIONS TO BE ANSWERED	26	Any 3	Any 2	Any 3	34
TOTAL MARKS	1 x 26 = 26	2 x 3 = 6	3 x 2 = 6	4 x 3 = 12	50 MARKS

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Sample Question Paper for Class XI (Session 2023-2024)

Max. Time: 3 Hours

Max. Marks: 60

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **24 questions** in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (6 + 18 =) 24 questions, a candidate has to answer (6 + 11 =) 17 questions in the allotted (maximum) time of 3 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**
 - i. This section has 06 questions.
 - ii. There is no negative marking.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):**
 - i. This section contains 18 questions.
 - ii. A candidate has to do 11 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	“Through the wheat field”: Identify the phrase used in the expression.	1
ii.	Write the term that describes the bonding between the group members who come together to contribute for a larger goal.	1
iii.	_____ is the text that is printed at the top of each page (in the top margin) in a document.	1
iv.	Which of the action factor is an internal and innate to your personality and drives your values as personality influences?	1
v.	Name the values that make entrepreneurs look beyond the core business and have a bigger purpose	1
vi.	The principal aim of this act is to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which is vital for sustenance of all life forms, human, animal and plant. Identify the Act.	1

Q. 2	Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)	
i.	What is the sensitivity range for testing urine for nitrite using QDX Urine Analyzer?	1
ii.	What is the value of the normal renal threshold for glucose?	1
iii.	Name the method by which leucocytes can be detected in the microscopic examination of urine.	1
iv.	What is the range of Normal Cell Count In C.S.F in adults?	1
v.	What is the coagulation and liquefaction time of a normal semen sample?	1
vi.	Name the fixative that is excellent for nuclear detail and connective tissue staining but lyses red blood cells due to the presence of acetic acid.	1
vii.	Name the most commonly used dehydrant coagulant fixatives in Tissue Processing.	1

Q. 3	Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)	
i.	Give an example of a gastrointestinal disease which involves examination of stool specimens	1
ii.	_____ are the transparent plates with notched corners seen in nephritis, nephritic condition called chyluria.	1
iii.	A secretion that is produced in the lungs and the bronchi (tubes that carry the air to the lung) is known as _____	1
iv.	What is the formula used for calculating the Leukocytes in CSF / per cumm?	1
v.	What is the reason for increased lymphocytes and neutrophils respectively in pleural fluid?	1
vi.	Name the microtome which is used for sectioning animal tissues of soft nature.	1
vii.	A type of stain which is based on the chemical and physical properties of the cell walls of microorganisms. Identify the stain.	1

Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Name the method which is used for chemical examination of stool. a. pH paper strip method b. Lugol's iodine test c. Rothera test	1
ii.	Name of the method which is used to identify the various ova found in stool Microscopy. a. Lugol's iodine test	1

	b. Saline & iodine wet mount c. pH paper strip method	
iii.	A staining test that is commonly performed in laboratory for mycobacteria using the sample of the patient's sputum is known as: a. ZN Test b. Smear test c. Acid-fast bacillus stain (AFB)	1
iv.	The primary chelating agent used for decalcification is a. Heparin b. Tris acetate c. EDTA	1
v.	Inflamed tissue and oedema Increased capillary Permeability is seen in: a. Exudate b. Transudate c. Tuberculosis	1
vi.	Tissue removed from the body undergoes a process of degeneration. This process known as: a. Hemolysis b. Autolysis c. Hydrolysis	1

Q. 5	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Name the test which is used to detect ketone bodies in the urine. a. Benedict's Test b. Fehling's Test c. Rothera's Test	1
ii.	A method of localization of antigens in tissue by use of labeled antibodies through antigen-antibody interactions is known as a. ELIZA b. Autopsy c. IHC	1
iii.	Select the stain which is used for evaluation of sperm morphology by performing differential counts of morphologically normal and abnormal spermatozoa types: a. Giemsa stain b. H&E stain c. Papanicolaou stain	1
iv.	The condition in which count and motility of the sperm is less than normal is: a. Oligozoospermia b. Oligoasthenospermia c. Azoospermia	1
v.	The most popular embedding medium for histology is known as: a. Paraffin wax b. Acetone c. Alcohol	1
vi.	Urine excretion with constantly low specific gravity (1.0007) is known as: a. Polyuria b. Hypersthenuria c. Hyposthenuria	1

Q. 6	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	On performing the quantitative test, the output volume of urine sample in a patient after a follow up test was below 500 ml. Which of the following disease is the person suffering from? a. Anuria b. Polyuria c. Oliguria	1
ii.	A patient's urine sample was found to be turbid. Turbid urine suggests which of the following conditions? a. Chylomicrons in urine b. Glucose in urine c. Calcium phosphates in urine	1
iii.	The fluid found in abdominal and pelvic cavities is known as: a. Pelvic b. Pleural c. Peritoneal	1
iv.	Turbidity is seen in CSF is due to which of the following cause: a. increase number of cells i.e., to 400- 500 polymorphs per cu.mm b. decrease number of cells i.e., to 100- 200 polymorphs per cu.mm c. few cells i.e., to 10- 20 polymorphs per cu.mm	1
v.	A branch of pathology which deals with the tissue diagnosis of disease is known as: a. Cytology b. Histopathology c. Histology	1
vi.	The specialized methodology used for preserving and preparing tissue is known as a. Processing b. Mounting c. Staining	1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

Q. 7	What are the two major parts of a Sentence?	2
Q. 8	Enlist any four set of activities one needs to take up for time management.	2
Q. 9	List the steps that are involved to search a word or text in a document.	2
Q. 10	What is Attitude? List any two entrepreneurial Attitudes.	2
Q. 11	List any four components of Green Economy.	2

Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)

Q. 12	List any four differences between Transudate and Exudate	2
Q. 13	What are the properties of an ideal fixative? (Any four)	2
Q. 14	List the causes of bloody pericardial fluid.	2

Q. 15	How will you test the presence of glucose in urine using manual method?	2
Q. 16	Enlist the factors affecting the rate of tissue processing.	2

Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)

Q. 17	How will you identify the various crystals and casts found in urine?	3
Q. 18	Describe three physical properties of normal cerebrospinal fluid?	3
Q. 19	Outline the steps in routine processing of histopathology specimens.	3

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

Q. 20	Define specific gravity of urine. What is the specific gravity of a normal urine sample? Explain the steps involved in measuring the specific gravity of urine.	4
Q. 21	List any three methods of collection of specimens of urine. What should be the nature of container used for urine collection?	4
Q. 22	Describe the procedure for microscopic examination of stool.	4
Q. 23	Describe the procedure for evaluating motility of semen sample.	4
Q. 24	Define microtomy. Enlist the different types of microtomes and knives used in histopathology specimen cutting.	4