

CBSE | DEPARTMENT OF SKILL EDUCATION

MEDICAL DIAGNOSTICS (SUBJECT CODE - 828)

Blue-print for Sample Question Paper for Class XII (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 - IV	1	1	2
2	Self-Management Skills - IV	1	1	2
3	Information and Communication Technology Skills - IV	2	1	2
4	Entrepreneurial Skills - IV	1	1	2
5	Green Skills - IV	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	Hematology Lab	11	2	1	1	15
2	Blood Bank and Transfusion	10	2	1	2	15
3	Cytopathology	11	1	1	2	15
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 PAPER FOR CLASS XII (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. No.	QUESTION	Marks
Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	Being punctual is not an interview skill? State whether True or False.	1
ii.	Explain anti-social personality disorder?	1
iii.	What is format of writing any function?	1
iv.	Define creativity?	1
v.	What are green jobs?	1
vi.	_____ is used to find the average of numbers in a range of cell.	1
Q. 2	Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)	
i.	Write down the full form of CBC. a) Common blood count b) Complete blood count c) Complete bone count	1
ii.	Name the anticoagulant that is best to use for coagulation studies. a) EDTA b) Trisodium Citrate c) Heparin	1
iii.	What do you mean by MCHC? a) Major Corpuscular hemoglobin Concentration b) Mean Corpuscular hemoglobin Concentration c) Major Cellular hemoglobin Concentration	1

iv.	What do you mean by MCH? a) Mean Corpuscular hemoglobin b) Major Corpuscular hemoglobin c) Major Cellular hemoglobin	1
v.	In which condition decreased osmotic fragility is seen? a) Congenital spherocytosis b) Thalassemia c) Autoimmune hemolytic anemia	1
vi.	Write down the full form of PCV. a) Pus cell Volume b) Periodic cell Volume c) Packed cell Volume	1
vii.	Name the instrument to separate solution into sediment and supernatant by using required speed. a) Centrifuge b) Microscope c) Hemocytometer	1
Q. 3	Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)	
i.	Name one commonly used method to measure ESR. a) Benedict's test method b) Fehling's test method c) Westergren's Method.	1
ii.	_____ is the ideal fixative used for cellblock preparation of fluid specimens. a) Formalin b) AAF Fixative c) Xylene	1
iii.	Which is a better RBC diluting fluid if one wants to prevent rouleux formation? a) Hingleman's solution b) Toisson's fluid c) Gower's Solution	1
iv.	What do you mean by Hematopoiesis? a) An increase in platelet count b) Production of blood cells c) An increase in WBC count	1
v.	Who discovered Rhesus blood group system? a) Land Steiner and Wiener b) Thompson c) Charles Darwin	1
vi.	The titer of an antibody is usually determined by testing two fold serial dilution of the serum against selected _____ cells. a) Red b) White c) Blue	1
vii.	Name two antigens of kidd blood group system. a) Jkd and Jke b) Jkm and Jkn c) Jka and Jkb	1
Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	_____ is defined as clumping of particles that have antigen on their surface and is brought about by anti-bodies. a) Agglutination b) Hemolysis	1

	c) Reaction	
ii.	_____ develop due to immunization following pregnancy, previous transfusion or deliberate injection of immunogenic material. a) Ig G b) Ig M c) Ig E	1
iii.	_____ are serum proteins, more specifically immunoglobulins. a) Antigens b) Antibodies c) Pathogen	1
iv.	An increase in lymphocyte count above normal reference range is known as _____. a) Lymphocytosis b) Lymphopenia c) Lymphoedema	1
v.	What are the antigens of Lutheran system? a) Lu m and Lu n b) Lu c and Lu d c) Lu a and Lu b	1
vi.	Write down the full form of ELISA. a) Enzyme linked immunosorbent Assay b) Energy linked immunosorbent Assay c) Evolution linked immunosorbent Assay	1
Q. 5	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	What is the basic function of autoclave in laboratory? a) Drying b) Heating c) Sterilization	1
ii.	_____ is rupture of red cells with release of intracellular haemoglobin can occur if the Antibody has the property of hemolysin. a) Agglutination b) Hemolysis c) Reaction	1
iii.	Name one special purpose fixative used in cytology laboratory. a) AAF fixative b) Carnoy's fixative c) Formalin	1
iv.	_____ is a special purpose fixative for haemorrhagic samples. a) Carnoy's fixative b) AAF fixative c) Formalin	1
v.	Name the chemical which is used for dehydration process. a) Alcohol b) Water c) Xylene	1
vi.	What do you mean by Cytology? a) Study of tissue b) Study of cells c) Study of organ	1
Q. 6	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Write down full form of FNAC. a) Fine needle aspiration cytology b) Free needle aspiration cytology	1

	c) Fine needle activation cytology	
ii.	_____ is strictly for taking materials from endocervix. a) Endo-cervical brush b) Exo-cervical brush c) Endo-cellular brush	1
iii.	It is important that no air-drying occurs prior to_____. a) Fixation b) Dehydration c) Clearing	1
iv.	By which process Respiratory tract malignancies can be detected? a) By sputum cytology or by bronchoscopic material b) By CSF cytology or by bronchoscopic material c) By sputum cytology or by Endoscopic material	1
v.	Name one routine fixative that was originally recommended by Papanicolaou. a) Carnoy's Fixative b) AAF Fixative c) Ether alcohol mixture	1
vi.	Name one clearing agent used in laboratory. a) Formalin b) Water c) Xylene	1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Q. No.	QUESTION	Marks
Answer any 3 out of the given 5 questions on Employability Skills in 20 – 30 words each (2 x 3 = 6 marks)		
Q. 7	Describe any 2 steps of active listening?	2
Q. 8	What is motivation? Explain the types of motivation?	2
Q. 9	Entrepreneurship is considered to be both an art and a science. Why?	2
Q. 10	Mention any two ways of minimizing waste and pollution.	2
Q. 11	Give reasons for the following: ##### #DIV/0!	2
Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)		
Q. 12	Write down the advantages of Evacuated Tube System.	2
Q. 13	What do you mean by neutrophilia and neutropenia?	2
Q. 14	Write down the importance of blood storage cabinets.	2
Q. 15	Explain two types of process that can be done by using cell separator.	2
Q. 16	How endometria aspiration smear can be made?	2
Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)		
Q. 17	Enumerate three stages of ESR experiment.	3
Q. 18	Enumerate any six features of cold centrifuge.	3
Q. 19	Enlist the indications of FNAC. Outline its methodology.	3
Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)		
Q. 20	How the microscope can be handled properly in laboratory?	4
Q. 21	How the bleeding time can be measured by IVY method?	4
Q. 22	Who discovered ABO blood grouping system? Write down the importance of ABO blood grouping system	4
Q. 23	Enumerate two major categories of cytological sample that are examined in laboratory	4
Q. 24	Enumerate the functions of four special purpose fixatives	4