

This question paper consists of 5 questions and 3 printed pages.

Roll No.

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Code No. **53/VOC/O**

Set

A

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY
(Haematology and Blood Bank Techniques and Histology and Cytology)

Paper-I
(Theory)
(474/475)

Day and Date of Examination

Signature of Invigilators 1.

2.

General Instructions :

1. Candidate must write his/her Roll Number on the first page of the question paper.
2. Please check the question paper to verify that the total pages and total number of questions contained in the paper are the same as those printed on the top of the first page. Also check to see that the questions are in sequential order.
3. Making any identification mark in the answer-book or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
4. Answers for questions, like matching, true or false, fill in the blanks, etc., are to be given in the answer-book.
5. Write your Question Paper Code No. 53/VOC/O, Set

A

 on the answer-book.

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

(Haematology and Blood Bank Techniques and Histology and Cytology)

Paper—I

(Theory)

(474/475)

Time : 3 Hours]

[Maximum Marks : 75

- Note : (i) All questions are compulsory.
(ii) Marks are indicated against each question.

Answer the following questions elaborately :

1. Define anemia. How do we classify anemia based on etiology? Give *one* example of each. 10
2. Write the properties of hematoxylin. Describe H&E staining. 10
3. Answer/Write short notes on the following : 5×7=35
 - (a) Define embedding. Name any *two* embedding medias . Write the steps of embedding a tissue.
 - (b) Direct Coombs' test
 - (c) Write the principle of Ziehl-Neelsen staining. What is the difference in the staining for mycobacterium tuberculosis and mycobacterium leprae?
 - (d) Westergren method
 - (e) Describe the methods of hematocrit measurement.
 - (f) What is the principle of blood grouping? Write in short about slide technique.
 - (g) International normalized ratio

4. Write whether the following statements are True or False. Write your answers in the answer-book : 1×10=10

- (a) After decalcification the specimen should be washed in alcohol.
- (b) MGG stain is done on air-dried smears.
- (c) ALL is common in adults.
- (d) Extrinsic and common pathway is detected by PT.
- (e) The normal value of TLC in adults is $4-11 \times 10^9/L$.
- (f) A D^u doner blood is considered Rh positive.
- (g) HbF is decreased in β -thalassemia major.
- (h) Platelets are formed by cytoplasmic fragmentation of megakaryocytes.
- (i) Auer rods are present in CLL.
- (j) Temperature of a cryostat is usually maintained between $-20^\circ C$ to $-30^\circ C$.

5. Fill in the blanks. Write your answers in the answer-book : 1×10=10

- (a) ____ % formalin is routinely used for tissue fixation.
- (b) ____ stain is used for studying nuclear details in cytology.
- (c) ____ chromosome is present in CML.
- (d) Promyelocyte mature into ____.
- (e) In bone marrow, storage iron is demonstrated by ____ staining.
- (f) In hemolytic anemia, ____ bilirubin is increased.
- (g) For coagulation studies, the ratio of blood to anticoagulant is ____.
- (h) ____ are leucocytes with bilobed nucleus and orange reddish granules.
- (i) The average life span of RBC's is ____ days.
- (j) Poikilocytosis refers to variation in ____.

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