

Hematology

Hematology:

Date:

Station no. 65: An 8-year-old boy was on cytotoxic therapy for malignancy. On his follow-up, he was advised a blood investigation that generally decreases in such condition exposing the child for opportunistic infections.

Dilute the blood for performing the investigation (blood sample given)

Domains tested: Cognitive, psychomotor

S. no.	Steps	Marks	R. no. 1	R. no. 2	R. no. 3
A.	Checklist				
1.	Takes adequate white blood cell (WBC) diluting fluid in a watch glass	1			
2.	Selects WBC pipette	1.5			
3.	Ensures that the WBC pipette is clean and dry	1			
4.	Pipettes blood up to 0.5 mark of pipette	1.5			
5.	Wipes the tip of the pipette	1			
6.	Sucks the diluting fluid up to 101 mark of pipette	2			
7.	Holds the pipette horizontally, gently mixes the contents of the bulb and places the pipette on the table	2			
	Total Marks	10			
	Correction Factor				
	Final Score				
	Global Rating: 1. Poor; 2. Unsatisfactory; 3. Satisfactory; 4. Good; 5. Excellent				
	Observer's Comment (based on general observation):				
	Signature of Observer				

Prerequisites:

- Adequate number of WBC and RBC pipettes, watch glasses should be placed in a tray.
- Turk's fluid, Hayem's/any other RBC diluting fluid used in the lab, Leishman's stain to be kept on the station.
- Artificial blood should be prepared to avoid infection.
- Adequate amount of tissue paper should be placed at the station.

Hematology:

Date:

Station no. 66: A 16-year-old female, on a pure vegetarian diet had complaints of tingling numbness, easy fatigability and blackish discoloration of knuckles.

Dilute the blood for performing the investigation that would help in diagnosis (Blood sample given).

Domains tested: Cognitive, psychomotor

S. no.	Steps	Marks	R. no. 1	R. no. 2	R. no. 3
A.	Checklist				
1.	Takes adequate red blood cell (RBC) diluting fluid in a watch glass	1			
2.	Selects RBC pipette	1.5			
3.	Ensures that the RBC pipette is clean and dry	1			
4.	Pipettes blood up to 0.5 mark of pipette	1.5			
5.	Wipes the tip of the pipette	1			
6.	Sucks the diluting fluid up to 101 mark of pipette	2			
7.	Holds the pipette horizontally, gently mixes the contents of the bulb and places the pipette on the table	2			
	Total Marks	10			
	Correction Factor				
	Final Score				
	Global Rating: 1. Poor; 2. Unsatisfactory; 3. Satisfactory; 4. Good; 5. Excellent				
	Observer's Comment (based on general observation):				
	Signature of Observer				

Prerequisites:

- Adequate number of WBC and RBC pipettes, watch glasses should be placed in a tray.
- Turk's fluid, Hayem's/any other RBC diluting fluid used in the lab, Leishman's stain to be kept on the station.
- Artificial blood should be prepared to avoid infection.
- Adequate amount of tissue paper should be placed at the station.

Hematology:

Date:

Station no. 67: A 5-year-old girl had history of passing worms in stool, poor appetite and easy fatigability.

Charge the Neubauer's chamber for performing the count related to this condition.

Domains tested: Cognitive, psychomotor

S. no.	Steps	Marks	R. no. 1	R. no. 2	R. no. 3
A.	Checklist				
1.	Cleans the Neubauer's chamber	0.5			
2.	Cleans the coverslip	0.5			
3.	Places the coverslip on the Neubauer's chamber platform	1			
4.	Mixes the contents of the red blood cell (RBC) pipette bulb thoroughly	1.5			
5.	Discards two drops of fluid from pipette before charging	1.5			
6.	Places the tip of RBC pipette touching the edge of the coverslip	2			
7.	Allows the diluted blood to flow by capillary action under the coverslip.	2			
8.	Takes care that the diluted blood does not overflow the gutters or contain air bubbles.	1			
	Total Marks	10			
	Correction Factor				
	Final Score				
	Global Rating: 1. Poor; 2. Unsatisfactory; 3. Satisfactory; 4. Good; 5. Excellent				
	Observer's Comment (based on general observation):				
	Signature of Observer				

Prerequisites:

- Adequate number of filled WBC and RBC pipettes should be placed in a tray.
- Adequate number of Neubauer's chambers and coverslips to be kept on the station.
- Adequate amount of tissue paper should be placed at the station.

Hematology:

Date:

Station no. 68: An adult male presented with high grade fever and chills. He had abscess in right thigh medial aspect.

Charge the Neubauer's chamber for performing the blood investigation that will support the diagnosis.

Domains tested: Cognitive, psychomotor

S. no.	Steps	Marks	R. no. 1	R. no. 2	R. no. 3
A.	Checklist				
1.	Cleans the Neubauer's chamber	0.5			
2.	Cleans the coverslip	0.5			
3.	Places the coverslip on the Neubauer's chamber platform	1			
4.	Mixes the contents of the white blood cell (WBC) pipette bulb thoroughly	1.5			
5.	Discards two drops of fluid from pipette before charging	1.5			
6.	Places the tip of WBC pipette touching the edge of the coverslip	2			
7.	Allows the diluted blood to flow by capillary action under the coverslip	2			
8.	Takes care that the diluted blood does not overflow the gutters or contain air bubbles	1			
	Total Marks	10			
	Correction Factor				
	Final Score				
	Global Rating: 1. Poor; 2. Unsatisfactory; 3. Satisfactory; 4. Good; 5. Excellent				
	Observer's Comment (based on general observation):				
	Signature of Observer				

Prerequisites:

- Adequate number of filled WBC and RBC pipettes should be placed in a tray.
- Adequate number of Neubauer's chambers and coverslips to be kept on the station.
- Adequate amount of tissue paper should be placed at the station.

Hematology:

Date:

Station no. 69: Perform the blood group investigation of the given sample (red cell suspension provided).

Domains tested: Psychomotor

S. no.	Steps	Marks	R. no. 1	R. no. 2	R. no. 3
A.	Checklist				
1.	Selects two slides marked A, B and C, D	1			
2.	Places a drop of red cell suspension on A, B, C and D	1			
3.	Adds a drop of anti-A serum on 'A'	1.5			
4.	Adds a drop of anti-B serum on 'B'	1.5			
5.	Adds a drop of anti-D serum on 'D'	1.5			
6.	Adds a drop of 0.9% normal saline on 'C'	1.5			
7.	Mixes the red cell suspension with the anti-sera using separate edges of glass slide/ by gently shaking the slides	1			
8.	Narrates the findings to the observer	1			
	Total Marks	10			
	Correction Factor				
	Final Score				
	Global Rating: 1. Poor; 2. Unsatisfactory; 3. Satisfactory; 4. Good; 5. Excellent				
	Observer's Comment (based on general observation):				
	Signature of Observer				

Prerequisites:

- Adequate quantity of anti-sera, 0.9% normal saline solution should be placed in a tray.
- Adequate amount of red cell suspension to be kept on the station.
- Adequate number of marked slides, plain slides to be kept on the station.
- Adequate amount of tissue paper should be placed at the station.