Anaemia test for surveyors

The test is to be preferably done pre- and post-training. Select (circle) the answer/s you believe to be the correct ones. **There may be more than one correct answer per question**.

(1) Which indicator is most commonly used to indicate anaemia in SENS surveys?

- _____

(2) During a nutritional survey, the measurement of anaemia in children 6-59 months of age:

a. Is done from a prick on the foot

b. Is done from a prick on the index or middle finger

c. Is done from a prick on the thumb or index finger

d. Is done from a prick on the middle or ring finger

(3) A woman of reproductive age (non-pregnant) presenting with haemoglobin concentration below 8.0 g/dL is considered :

a. Anaemic

b. Moderately anaemic

c. Severely anaemic

d. Non-anaemic

(4) Please fill out the table below with the appropriate cut-off values:

Age group	**Categories of Anaemia (Hb g/dL)**			
	Total	Mild	Moderate	Severe
Children 6 - 59 months				

(5) State five common errors that happen when measuring haemoglobin concentration with the HemoCue, which could result in faulty readings?

(6) What action(s) should never be undertaken when assessing haemoglobin concentration?

a. Use the same pair of gloves on two individuals
b. Hurt the individual by pricking
c. Filling up the microcuvette using the first drop of blood
d. Use a HemoCue machine that is damaged
e. Spill some blood on the individual's clothes

(7) Which of the following steps must be followed when doing a haemoglobin test during a nutritional survey?

a. Inform the individual about the standard procedure
b. Inform the individual about the haemoglobin results from the neighbour's house
c. Obtain verbal informed consent
d. Put a sticking plaster on the pricked finger
e. Tell the individual that the procedure will be painless

Answers

(1) Haemoglobin

(2) d

(3) c

(4)

Age group	Categories of Anaemia* (Hb g/dL)			
	Total	Mild	Moderate	Severe
Children 6 - 59 months	< 11.0	10.0-10.9	7.0-9.9	< 7.0

(5) All answers accepted.

Common error	Description
Improperly stored microcuvettes	Improperly stored microcuvettes should not be used for testing. -Microcuvettes should not be kept in unsealed containers for longer than 3 months.
Not setting-up properly	Not preparing all needed materials before testing a subject may affect the quality of the reading.
Removing microcuvette from container with fingers wet with alcohol	This can result in alcohol coming into contact with the microcuvette; thus the selected microcuvette as well as others inside the container can be destroyed.
Underfilling the microcuvette	**Never** refill a partially filled microcuvette with same drop of blood because the blood may have started to clot and will give an incorrect reading. 
Mixing alcohol with blood drop	Not letting finger to dry completely after disinfecting with alcohol will give a faulty reading. Even a trace of alcohol getting into the microcuvette will affect the reading.
Shallow finger puncture	A finger puncture that is too shallow because lancet was not properly placed or not enough pressure was placed while releasing the lancet will restrict blood flow.
Obstructing blood flow	Restricting blood flow to the subject's fingertip following the finger stick because the finger is held tightly will affect testing.

Common error	Description
'Milking' the finger	Excessive massaging or squeezing of the finger will cause tissue juice (interstitial fluid) to mix with and dilute the blood. This will result in erroneous test results, particularly in yielding low levels of Hb concentration in the blood.
Using the wrong drop of blood.	Not appropriately wiping off the first two drops may result in an unrepresentative blood sample being tested.
Air bubbles in microcuvette	Holding the microcuvette in inverted position (slit facing down) during filling can lead to air bubbles being trapped resulting in erroneous reading.
'Topping off' the microcuvette	'Topping off' a partially filled microcuvette with repeated blood collection will result in erroneous measurement. Red cells of blood introduced later will not be adequately analyzed.
Blood on outside of microcuvette	Not cleaning off blood on outside of microcuvette before testing can result in erroneously high reading.
Inadequate placement of the microcuvette	'Slamming' the microcuvette holder into place can lead to blood drops spattering inside the reading chamber. This action can damage the reader.
Not referring the severely anaemic subjects according to local treatment standards	The subject is diagnosed as severely anaemic and the surveyors do not refer the subject according to the local treatment standards when a facility is available.

(6) All answers must be given: a, c, d

(7) All answers must be given: a, c, d