

Assignment for Viva

Course Title: Human Physiology II

Rad 2nd semester section A

Instructor: Dr. M .Shahzeb khan (PT)

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Marks: 100

Note:

VIVA MARKS WILL BE GIVEN ON BASIS OF THIS ASSIGNMENT

Q1: (A) What is blood pressure? Explain systolic, diastolic, Normal and Abnormal Blood pressure

Ans. **Blood Pressure:**

- Blood pressure is the pressure of the blood within the arteries. It is produced primarily by the contraction of the heart muscle.
- The pressure of the blood in the circulatory system, often measured for diagnosis since it is closely related to the force and rate of the heartbeat and the diameter and elasticity of arterial walls.

❖ **Systolic B.P:**

- When your heart beats, it squeezes and pushes blood through your arteries to the rest of your body. This force creates pressure on those blood vessels, and that's the systolic blood pressure.
- Normal systolic pressure is below 120. Reading of 140 or more means you have high blood pressure.

❖ **Diastolic B.P:**

- The diastolic reading is also known as the bottom number.
- The pressure in the arteries when the heart rests between beats. This is the time when the heart fills with the blood and gets oxygen.
- Normal diastolic B.P is lower than 80. Reading of 90 or higher means you have high B.P.

❖ **Normal B.P:**

- Ideally, we should all have a blood pressure below 120 and 80(120/80).
- This is the ideal blood pressure for people wishing to have a good health. At this level, we have a much lower risk of heart disease or stroke.

❖ **Abnormal B.P:**

- It is known as the disturbance in Blood pressure.
- It may be high B.P or Low B.P. Systolic or Diastolic
- Systematic hypertension is usually considered sustained elevations of diastolic BP greater than 90 to 95 mmHg or a systolic BP greater than 140 to 160mmHg.

- Borderline HTN is defined as diastolic BP between 85 and 89 mmHg or systolic BP between 140 and 159mmHg.

(B) How will you measure Blood pressure?

Ans. **Measurement of BP:**

- To measure blood pressure, the cuff is placed around the bare and stretched out upper arm, and inflated until no blood can flow through the brachial artery. Then the air is slowly let out of the cuff.
- As soon as the air pressure in the cuff falls below the **systolic blood pressure** in the brachial artery, blood will start to flow through the arm again. This creates the pound sound when the arteries close again and the walls of the vessels hit each other after a heart beat.
- The sound can be heard by placing the stethoscope close to the elbow. Right when you start to hear this pounding for the first time you can read your systolic blood pressure off the pressure meter.
- The sound stops when the air pressure in the cuff falls below the **diastolic blood pressure** in the brachial artery, then the blood vessels remains open. Right when the pounding stops, you can read the diastolic blood pressure off pressure meter.

ALL THE STUDENTS ARE REQUESTED TO UPLOAD YOUR ASSINGMENT BEFORE FINAL SATURDAY.
