**Assignment for Viva**

**Course Title: Human Physiology II**

**Rad 2nd semester section A**

**Instructor: Dr. M .Shahzeb khan (PT)**

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**Id no:16749**

**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

(B) How will you measure Blood pressure?

**ANSWER #1:**

**Part A:**

**Arterial blood pressure:**

It can be defined as the lateral pressure exerted by the moving column of blood on the walls of arteries.

**Systolic blood pressure:**

It is defined as the maximum B.P in the arteries. Attainable during systole. Normal 120+ 20 mm Hg.

**Diastolic blood pressure:**

It is the minimum pressure that is obtained at the end of the ventricular diastole. Normal range 60-90mmHg.

**Normal blood pressure:**

Ideal blood pressure is considered to be between 90/60mmHg.

**Abnormal blood pressure:**

Systemic hypertension is usually considered sustained elevations of diastolic BP greater than 90 to 95 mmHg or a systolic BP greater than

140-160 mmHg. Borderline HTN is defined as diastolic BP between 85 and 89 mmHg or a systolic BP between 140 and 159 mmHg.

**Part B:**

**Measuring blood pressure with sphygmomanometer:**

It has three parts;

* A cuff that can be inflated with air
* A pressure meter (manometer) for measuring air pressure in the cuff
* A stethoscope for listening to the sound the blood makes as it flows through the brachial artery (the major artery found in your upper arm).

**Measurement of blood pressure:**

1. 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.
2. 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 once again. This creates a pounding 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.
3. The pounding sound stops when the air pressure in the cuff falls below the diastolic blood pressure in the brachial artery. Then the blood vessels remain open. Right when the pounding stops, you can read the diastolic blood pressure off the pressure meter.

“**The end”**

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