ASSIGNMENT FOR VIVA..Dental sec b 2nd semester

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Q1. (i) Write a note on cardiovascular system?

***Answer***

*Cardiovascular system*

As the heart beats or contracts, the blood makes continuous round trips- into and out of the heart, through the rest of the body, and then back to the heart- only to be sent out again.

Intrinsic Conduction System of the Heart

The spontaneous contractions of the cardiac muscle cells occur in a regular and continuous way, giving rhythm to the heart.

**Function.** This system causes heart muscle depolarization in only one direction- from the atria to the ventricles; it enforces a contraction rate of approximately 75 beats per minute on the heart, thus the heart beats as a coordinated unit.

**Composition.** The intrinsic conduction system is composed of a special tissue found nowhere else in the body; it is much like a cross between a muscle and nervous tissue.

**Cardiac Cycle and Heart Sounds**

**Systole.** Systole means heart contraction.

**Diastole**. Diastole means heart [relaxation](https://nurseslabs.com/5-relaxation-tips-help-nurses-recharge-toxic-shift/).

**First heart sound.** The first heart sound, “lub”, is caused by the closing of the AV valves.

**Second heart sound.** The second heart sound, “dub”, occurs when the semilunar valves close at the end of systole

(ii) What are the symptoms of high and low blood pressure?

***Answer***

One of the most dangerous things about [hypertension](https://www.webmd.com/hypertension-high-blood-pressure/hypertension-assessment/default.htm) or high blood 3

Pressure is that you may not know you have it.

**Symptoms of Severe High Blood Pressure**

If your blood pressure is extremely high, there may be certain symptoms to look out for, including:

* Severe [headaches](https://www.webmd.com/migraines-headaches/default.htm)
* Nosebleed
* Fatigue or confusion
* Vision problems
* Chest pain
* Difficulty breathing
* Irregular heartbeat
* Blood in the urine
* Pounding in your chest, neck, or ears

People sometimes feel that other symptoms may be related to high blood pressure, but they may not be:

* Dizziness
* Nervousness
* Sweating
* Trouble sleeping
* Facial flushing
* Blood spots in eyes

**Symptoms of low blood pressure**

Most doctors will only consider chronically low blood pressure as dangerous if it causes noticeable signs and symptoms, such as:

* Dizziness or lightheadedness
* Nausea
* Fainting ([syncope](https://www.heart.org/en/health-topics/arrhythmia/symptoms-diagnosis--monitoring-of-arrhythmia/syncope-fainting))
* Dehydration and unusual thirst
* Dehydration can sometimes cause blood pressure to drop. However, dehydration does not always cause low blood pressure. Fever, vomiting, severe diarrhea, overuse of diuretics and strenuous exercise can all lead to dehydration, a potentially serious condition in which your body loses more water than you take in. Even mild dehydration (a loss of as little as 1 percent to 2 percent of body weight) can cause weakness, dizziness and fatigue.
* Lack of concentration
* Blurred vision
* Cold, clammy, pale skin
* Rapid, shallow breathing
* Fatigue
* Depression

(iii) What is the treatment of high and low blood pressure?

***Answer***

## Treatment of high blood pressure

Changing your lifestyle can go a long way toward controlling high blood pressure. Your doctor may recommend you make lifestyle changes including:

* Eating a heart-healthy diet with less salt
* Getting regular physical activity
* Maintaining a healthy weight or losing weight if you're overweight or obese
* Limiting the amount of alcohol you drink
* But sometimes lifestyle changes aren't enough. In addition to diet and exercise, your doctor may recommend medication to lower your blood pressure.
* Your blood pressure treatment goal depends on how healthy you are.
* Your blood pressure treatment goal should be less than 130/80 mm Hg if:
* You're a healthy adult age 65 or older
* You're a healthy adult younger than age 65 with a 10 percent or higher risk of developing cardiovascular disease in the next 10 years You have chronic kidney disease, diabetes or coronary artery disease.
* Although 120/80 mm Hg or lower is the ideal blood pressure goal, doctors are unsure if you need treatment to reach that level.
* If you're age 65 or older, and use of medications produces lower systolic blood pressure (such as less than 130 mm Hg), your medications won't need to be changed unless they cause negative effects to your health or quality of life.
* The category of medication your doctor prescribes depends on your blood pressure measurements and your other medical problems. It's helpful if you work together with a team of medical professionals experienced in providing treatment for high blood pressure to develop an individualized treatment plan.

**Medications to treat high blood pressure**

* **Thiazide diuretics.** Diuretics, sometimes called water pills, are medications that act on your kidneys to help your body eliminate sodium and water, reducing blood volume. Thiazide diuretics are often the first, but not the only, choice in high blood pressure medications. Thiazide diuretics include chlorthalidone, hydrochlorothiazide and others.
* **Angiotensin-converting enzyme (ACE) inhibitors.** These medications — such as lisinopril (Zestril), benazepril (Lotensin), captopril (Capoten) and others — help relax blood vessels by blocking the formation of a natural chemical that narrows blood vessels. People with chronic kidney disease may benefit from having an ACE inhibitor as one of their medications.
* **Angiotensin II receptor blockers (ARBs).** These medications help relax blood vessels by blocking the action, not the formation, of a natural chemical that narrows blood vessels. ARBs include candesartan (Atacand), losartan (Cozaar) and others. People with chronic kidney disease may benefit from having an ARB as one of their medications.
* **Calcium channel blockers.** These medications — including amlodipine (Norvasc), diltiazem (Cardizem, Tiazac, others) and others — help relax the muscles of your blood vessels. Some slow your heart rate. Calcium channel blockers may work better for older people and people of African heritage than do ACE inhibitors alone.

**Treatment of low blood pressure**

**Support stockings** **Open pop-up dialog box**

Low blood pressure that either doesn't cause signs or symptoms or causes only mild symptoms rarely requires treatment.

If you have symptoms, treatment depends on the cause. For instance, when medication causes low blood pressure, treatment usually involves changing or stopping the medication or lowering the dose.

If it's not clear what's causing low blood pressure or no treatment exists, the goal is to raise your blood pressure and reduce signs and symptoms. Depending on your age, health and the type of low blood pressure you have, you can do this in several ways:

**Use more salt.** Experts usually recommend limiting salt in your diet because sodium can raise blood pressure, sometimes dramatically. For people with low blood pressure, that can be a good thing.

But because excess sodium can lead to heart failure, especially in older adults, it's important to check with your doctor before increasing the salt in your diet.

**Drink more water.** Fluids increase blood volume and help prevent dehydration, both of which are important in treating hypotension.

**Wear compression stockings.** The elastic stockings commonly used to relieve the pain and swelling of varicose veins can help reduce the pooling of blood in your legs.

Some people tolerate elastic abdominal binders better than they do compression stockings.

**Medications.**Several medications can be used to treat low blood pressure that occurs when you stand up (orthostatic hypotension). For example, the drug fludrocortisone, which boosts your blood volume, is often used to treat this form of low blood pressure.

Doctors often use the drug midodrine (Orvaten) to raise standing blood pressure levels in people with chronic orthostatic hypotension. It works by restricting the ability of your blood vessels to expand, which raises blood pressure.