**Assignment : Pathology And Microbiology II**

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**…………………………………………….**

**Answer : 2**

**Osteoporosis**:-

 is a condition which laterally mean porous bone is a disease which quality and density of bone are reduced .as bones become more fragile and porous the risk of fracture is highly increased .the loss of bones occure progressively and silently in this condition often there are no symptoms until the first fracture occurrs

**Causes:-**

- low Estrogen in Women

-low testosterone in man

- Other Hormone Imbalances such GH , parathyroid Harmones,

-lack of calcium

-lack of Vitamin-D

- Sedentary Lifestyle

-Smoking

-Medications such is corticosteroids also ,

-Too Much Alcohol

**-Sign&Symptoms:-**

usually no symptoms in early stages there for also known as silent disease

-due to spinal compression there may be back pain

-Symptoms of severe osteoporosis can include a fracture from a fall or even from a strong cough or sneezing. They can also include neck or back pain, or loss of height. Neck or back pain or loss of height can be caused by a compression fracture.

-tenderness or bone pain

-joint pain

-farcture with little

**Osteomyelitis**:-

is an infection in a bone. Infections can reach a bone by traveling through the bloodstream or spreading from nearby tissue. Infections can also begin in the bone itself if an injury exposes the bone to germs.

**Causes:-**

-In most cases, a bacteria called Staphylococcus aureus, a type of staph bacteria, causes osteomyelitis.

-Certain chronic conditions like diabetes may increase your risk for osteomyelitis.

**Sign symptoms**

-Fever, irritability, fatigue

Nausea

Tenderness, redness, and warmth in the area of the infection

Swelling around the affected bone

**Osteomalacia :**

Osteomalacia is a disease characterized by the softening of the bones caused by impaired bone metabolism primarily due to inadequate levels of available phosphate, calcium, and vitamin D, or because of resorption of calcium. The impairment of bone metabolism causes inadequate bone mineralization.

**Causes:-**

Vitamin D deficiency. Sunlight produces vitamin D in your skin. ...

-Certain surgeries. Normally, the stomach breaks down food to release calcium and other minerals that are absorbed in the intestine. ...

-Celiac disease. ...

-Kidney or liver disorders

-drug

**Sign& symptoms:-**

-Osteomalacia, particularly when caused by a lack of vitamin D, can result in

-pain felt in the bones

-muscle weakness

-slight cracks in the bone (partial fractures).

**………………………………….**

**Answer 1**

The exercises used :

* Resistance exercises
* Weight exercises

**Resistance Exercises :**

* Weight lifting in proper spine and lower-extremity alignment
* Use of exercise bands
* Gravity resistance (eg, push-ups, prone trunk extension with cushion to protect lowest ribs, single-leg heel raises, squats, lunges, sustained standing yoga poses in neutral spine position)
* Exercises that reduce or stabilize kyphosis (hunchback)
* Balance exercises

**Weight Bearing Exercises :**

* Dancing
* Jogging (if your bone density is higher than -3.0)
* Racquet sports
* Heel drops
* Stomping

 THANK YOU SO MUCH