

# Sawera

## 15851

Q=) Write a comprehensive note on blood supply and venous return of lower limb.

**Answer:-**

### **Blood Supply of lower limb:-**

=) The blood supply of lower limb starts from the external iliac artery. The femoral artery is direct continuation of external iliac artery, which begins at the level of inguinal ligament.

#### **=) Femoral Artery:-**

The femoral artery become a superficial femoral artery and gives the profunda femoris.

#### **=) Popliteal Artery:-**

The popliteal artery is direct continuation superficial artery.

The popliteal artery terminates into anterior tibial artery and tibioperoneal trunk.

#### **=) Anterior Tibial Artery:-**

The anterior tibial artery passes through interosseous membrane. It continues to dorsum of foot.

#### **=) Tibioperoneal Trunk:-**

The tibioperoneal trunk divides into posterior tibial and

peroneal arteries. It divides into medial and lateral plantar arteries.

## → Venous Return of lower limb:-

The veins of lower limb drains de-oxygenated blood and return it to heart. They are divided into two groups:-

- 1- Deep veins
- 2- Superficial veins

### Deep veins:-

→ Deep veins are located under deep fascia of lower limb.

### Subcutaneous:-

→ Superficial veins are located in subcutaneous tissue.

### Anterior Tibial vein:-

→ In foot and leg the dorsal venous arch drains into the superficial veins. Some veins forms anterior tibial vein.

### Lateral and Medial plantar veins:-

→ On plantar side of foot medial and lateral plantar veins arise.

### Posterior Tibial and Fibular veins:-

→ These veins forms posterior tibial and fibular veins.

## Popliteal vein:-

→ posterior tibial and fibular vein unite to form the popliteal vein.

## Femoral vein:-

→ In thigh the femoral vein is situated. It drains blood from thigh muscles.

## Inguinal ligament:-

→ Then femoral vein leaves the thigh by running under inguinal ligament.

## Gluteal veins:-

→ In gluteal region inferior and superior gluteal veins are present. These empty into internal iliac vein.

## Superficial veins:-

→ The superficial veins of lower limb run in subcutaneous tissue.

## Major veins:-

There are two major superficial veins.

\* The great saphenous vein

\* The small saphenous vein.

2. Describe anatomical course of femoral and sciatic nerve with help of diagram.

Answer:-

# Anatomical Course of femoral nerve:-

## Nerve Root:-

L2, L4

## Anatomical Course:-

The femoral nerve is largest branch of lumbar plexus. It is derived from the anterior rami of nerve roots L2, L3 and L4. After arising from the lumbar plexus, femoral nerve travels inferiorly through psoas major muscle of posterior abdominal wall.

superior



inferior



L2  
L3  
L4

iliacus

femoral nerve

ABDOMEN

Posterior division

nerve to pectineus

THIGH

lateral circumflex femoral artery  
hip joint

Anterior division

sartorius

Rectus femoris

intermedial cutaneous nerve of thigh

vastus lateralis

medial cutaneous nerve of thigh

vastus intermedius

Knee joint

LEG

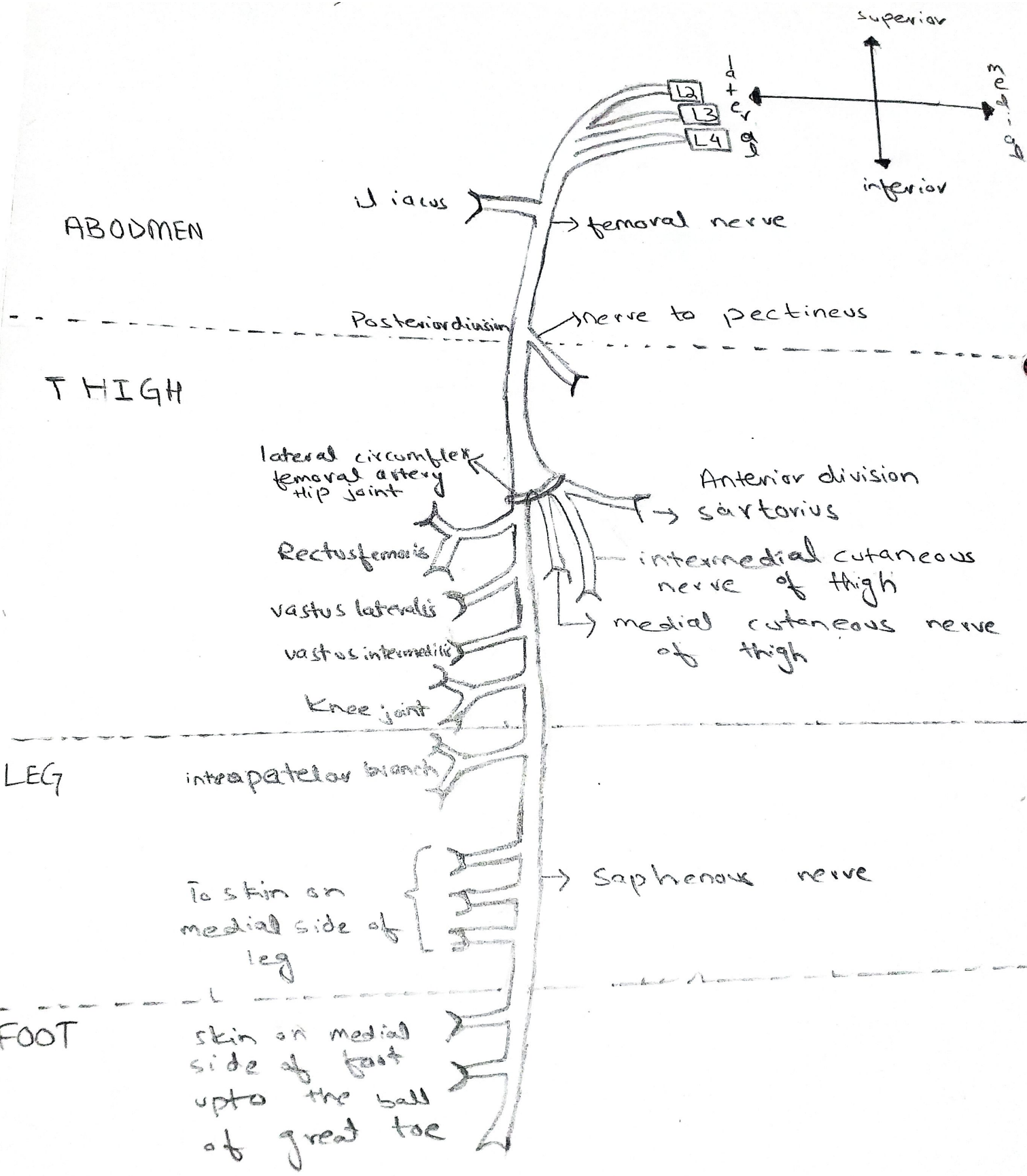
intraapatelov branch

Saphenous nerve

To skin on medial side of leg

FOOT

skin on medial side of foot upto the ball of great toe



## Anatomical course of Sciatic nerve:-

### Nerve Root:-

L4, S3

### Anatomical course:-

The sciatic nerve derives from lumbosacral plexus. When it forms it leaves pelvis and enters in the gluteal region through greater sciatic foramen. It emerges inferiorly to the piriformis muscle and descends in an inferolateral direction. When sciatic nerve reaches apex of popliteal fossa,

It terminates by bifurcating into tibial and common fibular nerves.

**Diagram:-**

