***Name ; Salman Khalid***

***I'd 15236***

***Program ; BS RADIOLOGY***

***Course ; clinical medicine***

***Instructor; maam maheen Gul***

**Question ; 1**

***MCQS;***

1. **.**C
2. **.**D
3. **.**D
4. **.**A
5. **.**B
6. **.**D
7. **.**A
8. **.**B
9. **.**B

**10.**C

**Answer:3**

Non-steroid anti-inflammatory drugs(NSAIDs) are use in the treatment of PDA. In premature baby, NSAIDs such as **ibruprofen** or **indomethacin** might be use to help close a PDA. NSAIDs block the hormone like chemicals (prostaglandin ) in the body that keep PDA open. It is given IV. Indomethacin stimulates the muscles inside the PDA to tighten. This closes the connection.

**Answer 4;**

Based on international consensus in 2012, the MI are classified into five types ;

**Type 1** *spontaneous MI*=plaque rupture, ulceration,fissuring, erosin ,or dissection resulting in coronary thrombosis.

**Type 2** *supply/demand mismatch* = mismatch between myocardial oxygen supply and demand driven by a secondary process other than coronary artery disease.

**Type 3** *suspected MI-related death =* cardiac death in a setting suggestive of ischemic process without definitive cardiac biomarker evidence of MI.

**Type 4a** *PCI-related MI =* Rise in cardiac biomarkers accompanied by symptoms electrocardiographic, angiographic,or imaging evidence of ischemia after PCI.

**Type 4b** *stent thrombosis* = confirmed stent thrombosis in context of ischemia and dynamic cardiac biomarker changes.

**Type 5** *CABG-related MI* = Rise in cardiac biomarkers accompanied by electrocardiographic,angiographic, or imaging evidence of ischemia after CABG.

***Question 1;***

**Eisenmenger syndrome :** A congenital heart defect that initially causes a major left to right shunt,which leads to severe **pulmonary vascular disease** and **pulmonary arterial hypertension**, and finally results in reversal of shunt and development of cyanosis.

**Explanation**

It occur when there is A defect or hole (shunt) between two chambers of heart. With this defect, blood moves from the left side of the heart to right chamber. This increase blood flow into the lungs, by which the lung arteries and tissue damages. As a result, pressure in the lung arteries increases. This is known as **PAH.** This increased pressure eventually leads to shunt reversal. This means the blood now moves in the wrong direction from right to left chamber causing low oxygen in the blood in your body. Thus leads to cyanosis and other manifestations of **ES**.

**Symptoms.**  Symptoms depend on the organ that are affected. The most visible signs are cyanosis and clubbing. **Other sign and symptoms are:**

* **Chest pain**
* **Heart palpitations**
* **Coughing up blood**
* **Feeling tired.**

**Diagnosis :**

In addition to blood test, **EKG** and **X -RAY,** other test are confirm the diagnosis. These include an **Echocardiogram, cardiac catheterization** and a 6 minute walk test.

***Question 3:***

ATHEROSCLEROSIS PLAQUE

Atherosclerosis is the narrowing of arteries due to PLAQUE buildup on the artery wall.

Atherosclerosis starts when the inner wall of an artery called endothelium damages, overtime substances travelling in blood such as cholesterol,Fats,and cellular waste product accumulate inside the damage area of arterial wall,chemical reaction occurring within the buildup material cause cholesterol molecules to oxidized this initiate an inflammatory response in which the endothelial cells at the damage site release chemicals that signal cells for help in response monocytes in the blood stream travel to the damage site stimulation from oxidized cholesterol convertes the monocytes into macrophages the macrophages eat and digest the cholesterol molecules as a result of this process the macrophages change into **Foam cells** which accumulate to **form plaque ,** as the plaque increases in size the arterial wall thickened and hardens, which leads to myocardial infarction.