Test EBS201 Mineral Deposits

Date: 4th Disember 2019

1. Summarize the main topic learn in previous lectures of mineral deposits.

2. The San Rafael Sn-Cu deposit with a total reserves of 14.460 Mt at 5.14 percent Sn. If mineral processing apply a method of gravity extraction with 70% recovery. Calculate how many theoretical tonnes of cassiterite will be recovered. Atomic mass Sn: 118.71. O: 16.

3. Develop a general model for orogenic gold deposit.

4. Peninsular Malaysia is divided into three geological belt. List down <u>main</u> metallic mineral associated with each belt.

5. Describe the relative depth and range of temperature for the formation of epithermal deposit compare to other gold deposit.

6. What type of deposit with the following information? :
   - Metal assemblage: Au + Bi, Te, W, Mo, As, Sb with low sulphide (<5%)
   - Deposit zoning centred around mineralizing intrusion. Spatial/temporal relationship to 'I' type intrusions. Spatial distribution: provinces of well-known W and/or Sn.
   - Major deposit; Alaska and Yukon; Fort Knox (~210 t Au), Donlin Creek (~315 t Au), Pogo (~160 t Au), and Dublin Gulch, True North and Brewery Creek (~40 t Au each) in Yukon and Alaska, USA.

7. List down two (2) types of tin mineralization in Peninsular Malaysia and the location of the deposits

8. Study of crystal habit is useful to determine type of mineral. Give the example of cassiterite crystal habits.