

*Q1. Cancer can arise from genetic and epigenetic alterations. Which epigenetic alterations are commonly associated with cancer development and progression?*

- 1. Propose an example (3 points),*
- 2. Briefly describe what epigenetic changes can be observed in the tumor (4 points)*
- 3. Describe which experimental method/s in the lab can be used to measure difference in epigenetic marks (3 points)*

*Q.2 What type of sequencing approach is ideal to identify known mutations in tumor biopsies? Please briefly described this method and mention the advantages and disadvantages compared to other sequencing approaches.*

*Q3. Alterations in P53 and MDM2 tend to be mutually exclusive, but they are concurrent with PTEN deletions, how can you explain this pattern?*