A. You have been given the task of setting up a molecular diagnostics laboratory to provide pharmacogentic testing. What factors would you influence the scale and repertoire of tests you offer and give two specific example of genetic tests that are used to determine drug therapy?

B. Describe how *fluorescence in situ hybridisation* (FISH) is used in cancer diagnosis and prognosis.

C. Molecular techniques are being used increasingly in the diagnosis. Briefly describe how DNA technology is changing the practice of the disorder’s diagnosis.

D. Screening for genetic diseases has been influenced by DNA-based molecular techniques. Give two unrelated examples of how the use of molecular diagnostic has facilitated screening and how this has made a difference.

**Instructions:**

**- Answer all the above questions briefly (1 pages maximum each ) with providing references and citations for each part.**

**- Write the answers with your own words (*plagiarism check-up will be applied and should be zero plagiarism*)**