**Assignment Title:** Histopathology Techniques  
**Course Title:** Histopathology Techniques/ Embalmment  
**Course Code:** MLS 534

**Matric no**: 15/mhs06/065

**Question**  
1. Immunohistochemistry and immunocytochemistry is fast becoming an indispensable diagnostic tools in his to pathology laboratories discuss. 2. Embalming and plastination compare and contrast.

Answer

Immunohistochemistry and immunocytochemistry is fast becoming an indispensable diagnostic tools in his to pathology laboratories

Immunohistochemistry (IHC) is a method to identify specific antigens within tissue sections utilizing an antigen-specific antibody. IHC staining is widely used in the diagnosis of abnormal cells such as those found in cancerous tumours. Detection at the light microscopic level of antigen–antibody interactions can be achieved by labelling the antibody with a substance that can be visualized, either by conjugation to a fluorescent marker or enzyme followed by colorimetric detection. Applications of IHC;

1. characterization of primary site of malignant neoplasias
2. research for prognostic factors and therapeutic indications of some diseases
3. Histogenetic diagnosis of morphologically non-differentiated neoplasias
4. discrimination of benign versus the malign nature of certain cell proliferations
5. subtyping of neoplasias such as lymphomas

IHC can detect changes in transformed tissues and identifying cellular changes not normally visible with H&E. Although the routine histological and cytological techniques are valuable tools in diagnosis, the success of these screening methods are limited with respect to sensitivity and specificity. Interpretation of histology and cytology screening rely on subjective evaluation. IHC serves as an objective tool allowing identification of cells without difficulty.

Question 2

. Embalming and plastination compare and contrast.

Plastination is fundamentally, a technique of tissue preservation that was introduced , with the aim of obtaining a dry, odourless and a durable specimen. The procedure involved in plastination consisted of four steps – fixation, dehydration, forced impregnation in a vacuum and hardening while Embalming is the process of chemically treating the dead human body to reduce the presence and growth of the microorganisms, to retard organic decomposition and to restore acceptable physical appearance .The use of balms and balsams to impregnate the dead body for preservation has gained the name embalming.

They both involve the preservation of tissues.

Plastination allows students to have hands on experience in this field without exposure to chemicals such as formalin unlike embalming.

They are both carried out to help aid research.