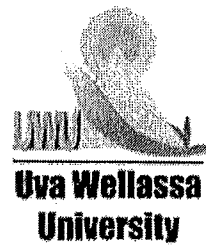


Uva Wellassa University, Sri Lanka  
Faculty of Science & Technology  
Science and Technology Degree Program  
3 level 2<sup>nd</sup> Semester Examination – Dec /Jan 2018  
SCT 352-1 Biomaterials and Applications



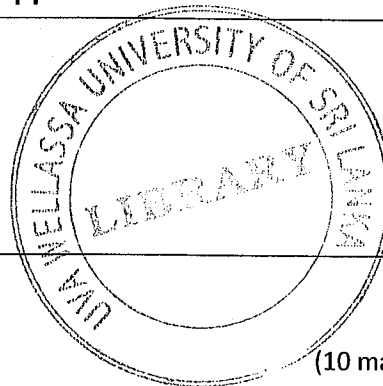
**Instructions to candidate**

Time allocation: One (01) hour

Number of questions: Two (02) essay

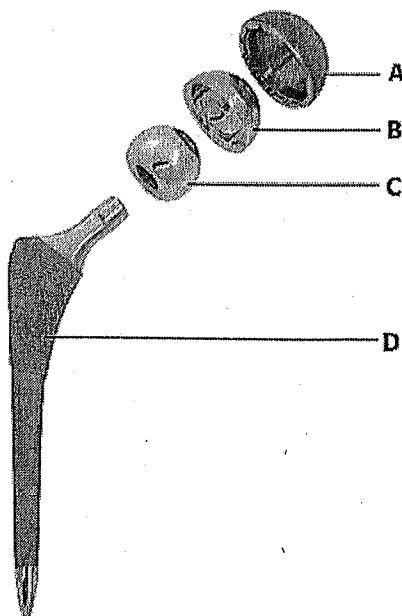
Mark allocation: 100

Answer all questions



1.
  - a. What do you mean by "Biocompatibility"? (10 marks)
  - b. What are biocompatible material features? (10 marks)
  - c. What is metallosis? (10 marks)
  - d. Briefly discuss the advantages of "Biodegradable" implants. (20 marks)

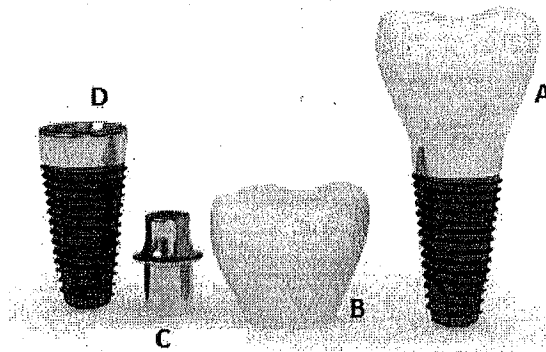
2.
  - a. Identify the implant shown in the figure below and name the individual components A to D.



- b. Suggest suitable materials to fabricate the individual components A to D. (10 marks)

- c. Why the surface of the upper part of component **D** has been made coarse. (10 marks)
- d. What are the advantages if components **B** and **C** are made of ceramics instead of metal? (10 marks)

e. Given in the figure below labeled as **A** is a total dental implant.



- i. Name parts **B**, **C** and **D** (05 marks)
- ii. Suggest suitable materials for manufacture of parts **B** and **D** (05 marks)
- iii. Briefly explain all important surgical steps involved in planting **A** in the oral cavity. (10 marks)

