

Sudan University of science and Technology

College Of Graduates Studies

**EFFECT OF SEX, SEASON AND EXERCISE ON SOME BLOOD
CONSTITUENTS OF GERMAN SHEPHERD DOGS IN THE SUDAN**

**تأثير النوع و الموسم والتمرين علي بعض مكونات دم كلاب الراعي
الألماني بالسودان**

By

Nidaa Ali Mohammed Ibrahim

B.VSc University of Bahri (Bher Ghazal) 2000

MSc. Sudan University of Science and Technology (SUST) 2008

A Thesis

Submitted in fulfillment of the Requirements of the Degree of PhD Of

Veterinary Medicine (Physiology)

Supervised by

Prof.Shadia Abdelate Omer.College of Vet. Med (SUST)

Dr.Shamseldein Ahmed/Assoc.Prof.College of Vet. Med (SUST)

September 2018