No. R. 772 **24 August 2007**

VETERINARY AND PARA-VETERINARY PROFESSIONS
ACT, 1982 (ACT NO. 19 OF 1982)

REGULATIONS RELATING TO VETERINARY AND
PARA-VETERINARY PROFESSIONS: AMENDMENT

I, Lulama Xingwana, Minister of Agriculture, acting under Section 43 of the Veterinary and Para-Veterinary Profession Act, 1982 (Act No. 19 of 1982), made the Regulations in the Schedule.

SCHEDULE

Definition

1. In this Schedule "the Regulations" means the regulations published by Government Notice No. R.2085 of 1 October 1982, as amended by the Regulations published by Government Notices Nos. R.1994 of 11 September 1987 (as corrected by Government Notice No. R.2199 of 2 October 1987), R.397 of 4 March 1988, R.1067 of 17 May 1991, R.11 of 3 January 1992, R.976 of 27 March 1992, R1477 of 23 September 1994, R.47 of 20 January 1995, R.701 of 12 May 1995, R.1401 of 15 September 1995, R.561 of 1 April 1996, R.256 of 14 February 1997, R.257 of 14 February 1997, R.96 of 16 January 1998, R.501 of 1 April 1998, R.751 of 5 June 1998, R.374 of 26 March 1999, R.422 of 1 April 1999, R.618 of 23 June 2000, R.734 of 17 August 2001, R.324 of 22 March 2002, R 1571 of 20 December 2002, R.562 of 2 May 2003, R. 275 of 5 March 2004 (as corrected by Government Notice No R.568 of 7 May 2004), R. 679 of 4 June 2004, R.343 of 15 April 2005, R. 249 of 24 March 2006 and R. 160 of 02 March 2007.

Insertion of Regulations 21 G, 21 H and 21 I

2. The Regulations are hereby amended by insertion of the following Regulations after Regulation 21 F of the following Regulations:

2. Requirements for registration to practice a Para-Veterinary profession: Veterinary Technology

21 G. ***Requirements for registration***

(1) Any applicant that applies for registration, as a veterinary technologist shall submit a certificate of competence in mathematics and physical science or biology issued for school leaving purposes by a competent secondary level schooling authority of South Africa.

(2) The veterinary Diploma referred to in regulation 19 which entitles a candidate to register as a Veterinary Technologist shall -

(a) Comprise of the completion of at least three academic years of study, including all practical components, as a registered veterinary technology student;

(b) be constituted of the exit level outcomes specified in the Table 9 A

(c) be constituted of the subject courses specified in Table 9 B

(3) Upon completion of the Veterinary Technology diploma a registered veterinary technology student may, if the examining authority is satisfied that the provision of the Act and these regulations have been successfully complied with, be registered as a veterinary technologist who works under the supervision of a registered senior technologist or registered veterinarian.

(4) Upon completion of the B Tech degree in Veterinary Laboratory Technology, a registered student may, if the examining authority is satisfied that the provisions of the Act and these regulations have been successfully complied with, be registered as a veterinary technologist who performs his/her duties without

supervision unless in exceptional circumstances, *inter alia* the use of scheduled substances.

Section 21 H. ***Curriculum requirements***

The curriculum of any tertiary institution that offers a course for study for qualification as a Veterinary Technologist in terms of regulation 21 shall comprise of the exit level outcomes specified in Table 9 A and the subject courses specified in Table 9 B

Section 21 I ***Examination***

(1) The examination for diploma shall be based on the assessment criteria specified in Table 9 A and includes examination in the subject courses specified in Table 9 B

(2) If the examination consists of a practical and a theoretical part, a minimum mark of 40 percent shall be obtained in each part.

(3) A candidate shall pass an examination in a subject if at least 50 percent of the maximum marks obtainable in the examination for that subject, is obtained.

Insertion of Table 9A and 9B

4. The following Tables are hereby inserted to the Regulations:

TABLE 9 A

EXIT LEVEL OUTCOMES

EXIT LEVEL OUTCOME 1	*(NQF 5: 60 credits)* *(NQF 6: 20 credits)* *(NQF 7: 20 credits)*
Demonstrate knowledge in the veterinary sub-fields of microbiology, parasitology, histology, biochemistry, haematology, toxicology, pharmacology, pathology and animal technology, within the norms prescribed by the Veterinary and Para-Veterinary Act and quality control standards, and apply technology in selected sub-fields. (C)	
SPECIFIED OUTCOMES	**ASSESSMENT CRITERIA**
1.1 Use knowledge in the veterinary sub-fields to prevent animal diseases. (C) *(NQF 5: 24 credits)* *(NQF 6: 8 credits)* *(NQF 7: 8 credits)*	1.1.1 Basic knowledge is applied to vaccine production according to appropriate quality control standards. 1.1.2 Knowledge is applied for recognition and prevention of diseases in animals involved in laboratories and field trials, according to accepted international standards.
1.2 Sample body fluids, tissues and other veterinary specimens. (C) *(NQF 5: 6 credits)* *(NQF 6: 2 credits)* *(NQF 7: 2 credits)*	1.2.1 The appropriate sampling technique is explained and/or applied correctly to obtain biological, clinical, necropsy specimens and environmental samples. 1.2.2 The transport, preservation, storage and safety procedures are appropriate to the sample and explained and/or performed correctly. 1.2.3 The sample complies with the requirements of the test.

1.3 Use instrumentation appropriately and effectively. (C) *(NQF 5: 6 credits)* *(NQF 6: 2 credits)* *(NQF 7: 2 credits)*	1.3.1 A range of instruments are used proficiently. 1.3.2 Instruments and equipment are calibrated and maintained to manufacturer requirements and specifications. 1.3.3 The appropriate instrument is selected for the specific technique.
1.4 Perform routine and specialized tests and techniques on samples and laboratory animals for diagnostic and/or research purposes. (C) *(NQF 5: 24 credits)* *(NQF 6: 8 credits)* *(NQF 7: 8 credits)*	1.4.1 Routine and specified media, stains, solutions and reagents are prepared according to prescribed procedures. 1.4.2 Calculated methods are understood, verified and interpreted correctly. 1.4.3 The quality of the sample is assessed relative to the test required and according to accepted criteria. 1.4.4 The appropriate test is applied to the specimen, according to quality control procedures. 1.4.5 Principles, methods, application and purpose of tests are explained and/or performed correctly. 1.4.6 Data is captured correctly, using manual or electronic means. 1.4.7 Manual and electronic data retrieval skills are demonstrated. 1.4.8 Knowledge of aseptic techniques and theatre procedures is applied for specialized and diagnostic purposes.

EXIT LEVEL OUTCOME 2	*(NQF 5: 20 credits)* *(NQF 6: 20 credits)* *(NQF 7: 40 credits)*
Critically evaluate and interpret laboratory results through application and integration of knowledge, skills and values. (C)	
SPECIFIED OUTCOMES	**ASSESSMENT CRITERIA**
2.1 Critically interpret and evaluate results of tests through the application of knowledge of principles, techniques and instruments. (C) *(NQF 5: 10 credits)* *(NQF 6: 10 credits)* *(NQF 7: 20 credits)*	2.1.1 Results are recorded and compared with established reference ranges and/or appropriate control specimens. 2.1.2 Data processing is performed according to appropriate mathematical and statistical methods. 2.1.3 Laboratory results are evaluated through correlation of data in the context of the principles, techniques and instruments used. 2.1.4 Factors that effect procedures and test results are recognized and appropriate action taken. 2.1.5 Corrective and preventative maintenance of equipment is performed according to standard operating procedures (SOP's).
2.2 Results of tests are communicated effectively. (C) *(NQF 5: 10 credits)* *(NQF 6: 10 credits)* *(NQF 7: 20 credits)*	2.2.1 Verbal communication is clear, correct and specific. 2.2.2 Written reports are concise, clear, scientific and correct. 2.2.3 Results are presented following prescribed formats using various media.

Exit LEVEL OUTCOME 3

(NQF 5: 20 credits)
(NQF 6: 50 credits)
(NQF 7: 50 credits)

Demonstrate knowledge of husbandry, management, handling and breeding systems of laboratory animals (in-house and field trials). (C)

SPECIFIED OUTCOMES	ASSESSMENT CRITERIA
3.1 Handle and manage animals according to the relevant Code of Ethics and the internationally recognized standards of animal welfare. (C) *(NQF 5: 8 credits)* *(NQF 6: 20 credits)* *(NQF 7: 20 credits)*	3.1.1 Knowledge of the relevant Code of Ethics is demonstrated verbally or in writing. 3.1.2 Animals are handled and used according to accepted guidelines.
3.2 Demonstrate knowledge of laboratory animal husbandry. (C) *(NQF 5: 12 credits)* *(NQF 6: 30 credits)* *(NQF 7: 30 credits)*	3.2.1 Nutritional concepts of specific animal groups are understood and applied correctly. 3.2.2 Breeding colonies are managed and maintained according to international accepted standards. 3.2.3 Principle of macro- and micro-environmental control measures are understood. 3.2.4 Knowledge of humane euthanasia techniques for all groups of animals is demonstrated, with displayed applied detailed knowledge of selected species. 3.2.5 General knowledge on procuring, handling, transportation and quarantine procedures of laboratory animals with specialized knowledge of primates and other exotic laboratory animals is demonstrated and applied.

EXIT LEVEL OUTCOME 4	*(NQF 5: 10 credits)* *(NQF 6: 10 credits)* *(NQF 7: 20 credits)*
Perform and monitor personal quality control procedures within predetermined limits in the workplace. (F)	
SPECIFIED OUTCOMES	**ASSESSMENT CRITERIA**
4.1 Apply principles and concepts of Quality Assurance in the laboratory. (F) *(NQF 5: 5 credits)* *(NQF 6: 5 credits)* *(NQF 7: 10 credits)*	4.1.1 Principles of Quality Assurance are explained in the context of the tests performed. 4.1.2 SOP's are formulated according to accredited requirements. 4.1.3 Quality Control and Quality Assurance results are evaluated and interpreted and appropriate action is taken.
4.2 Monitor established Quality Assurance procedures in the laboratory. (F) *(NQF 5: 5 credits)* *(NQF 6: 5 credits)* *(NQF 7: 10 credits)*	4.2.1 SOP's are assessed, reviewed and updated where necessary. 4.2.2 Instruments are monitored for efficient functioning and appropriate action is taken.

EXIT LEVEL OUTCOME 5	*(NQF 5: 5 credits)* *(NQF 6: 10 credits)* *(NQF 7: 5 credits)*
Apply the relevant Code of Ethics and safety measures consistently. (F)	
SPECIFIED OUTCOMES	**ASSESSMENT CRITERIA**
5.1 Demonstrate and apply knowledge of the relevant Acts and regulations regarding safety, health and the environment. (F) *(NQF 5: 1 credits)* *(NQF 6: 4 credits)* *(NQF 7: 1 credits)*	5.1.1 Comply with the relevant sections of the OHS-Act on NOSA regulations. 5.1.2 Wear applicable protective clothing. 5.1.3 Knowledge of personal vaccination and booster requirements is demonstrated. 5.1.4 Use equipment and experimental materials safely. 5.1.5 Waste material is disposed of safely and correctly.
5.2 Demonstrate knowledge of the Code of Ethics for veterinary technology according to the Veterinary and Para-Veterinary Act. (F) *(NQF 5: 2 credits)* *(NQF 6: 3 credits)* *(NQF 7: 2 credits)*	5.2.1 The Code of Ethics for the profession is complied with.

5.3 Demonstrate knowledge of the Code of Ethics regarding laboratory animals according to the National Code for Laboratory Animal Sciences. (F) *(NQF 5: 2 credits)* *(NQF 6: 3 credits)* *(NQF 7: 2 credits)*	5.3.1 Comply with the relevant sectors of the Animal Protection Act and the Code of Ethics.

(*C = Core, F = Fundamental and E = Elective outcomes*)

CRITICAL OUTCOMES embedded in the specified outcomes:

Critical and creative thinking, problem solving, communication, self-management, teamwork, safety and ethics, mindset of continuous professional development.

TOTAL CREDITS

360 credits (cumulative).

1 credit = 10 hours

TABLE 9 B

National Diploma Veterinary Technology

NAME OF INSTRUCTIONAL OFFERING	CODE	CREDIT VALUE	NAME OF PREREQUISITE
FIRST YEAR FIRST SEMESTER			
Food Animal Anatomy and Physiology I	VDA111T	0.100	
Calculations and Statistics	CAL101T	0.100	
Chemistry I	CHE141C	0.100	
Computer Skills	CSK101B	0.100	
Physics I	PHU161C	0.100	
FIRST YEAR SECOND SEMESTER			
Biochemistry II	BCH221T	0.125	Chemistry I
Haematology: Veterinary Science	HVS201T	0.125	Food Animal Anatomy and Physiology I
Histology II	HTL201T	0.125	Food Animal Anatomy and Physiology I
Microbiology I	MBI101T	0.125	
SECOND YEAR FIRST SEMESTER			
Biochemistry III	BCH311T	0.125	Biochemistry II
Immunology II	IML211T	0.125	Anatomy and Physiology I
Microbiology II	MBI241B	0.125	Microbiology I
Experimental Animal Technology II	EAT 211T	0.125	Food Animal Anatomy and Physiology I
SECOND YEAR SECOND SEMESTER			
Helminthology III	HEM301T	0.100	Microbiology II
Protozoology III	PZY301T	0.100	Microbiology II
Veterinary Microbiology III	VTM301T	0.100	Microbiology II
Virology III	VIR311T	0.100	Immunology II
Veterinary Entomology III	VTE311T	0.100	Microbiology II
After completion of all first, second and third semester subjects one year experiential training is required before The National Diploma in Veterinary Technology can be obtained.			

Bachelor's Degree In Veterinary Technology

After successful completion of first, second and third semester subjects the candidate may proceed to study further for the Bachelor's degree			
THIRD YEAR FIRST SEMESTER			
Experiental learning I	EXP1VET	0.500	
THIRD YEAR SECOND SEMESTER			
Applied Veterinary Technology II	AVT201T	0.500	Experiential Learning I
FOURTH AND FIFTH YEAR			
Entrepeneurial Skills	EPS101T	0.060	
Project: Veterinary Technology IV	PJA401T	0.280	Research Methodology: Natural Sciences
Project: Veterinary Technology IV (Re-registration)	PJA401R	0.000	
Research Methodology :Natural Sciences	RMN201B	0.100	
In addition to the above mentioned subjects two of the following subjects must be selected.			
Molecular Biology IV (Year subject)	MLB400T	0.280	Biochemistry III
Parasitology IV	PRY401T	0.280	Helminthology III Protozoology III Veterinary Entomology III
Pharmacology and Toxicology IV	PTX401T	0.280	Biochemistry III
Reproduction Technology IV	RPT401T	0.280	Biochemistry III
Virology IV	VIR401T	0.280	Virology III
Veterinary Bacteriology IV	VTB401T	0.280	Veterinary Microbiology III