APPROVED:

in the meeting of the Council

of the Faculty of Veterinary Medicine of the LSMU

17-11-2020,

No VF10-20

*Supplemented* by the VF Council:

17-01-2023, No VF10-01

Annex 1

# REQUIREMENTS FOR PRE-CLINICAL PRACTICE REPORT

CLERICAL REQUIREMENTS FOR THE REPORT

The text of the report has to be written by computer on one side of standard white paper of A4 format (210 x 297 mm).

The report has to be written in Lithuanian. The foreign students write the report in the language specified in the contract (English). The report has to be written in correct and fluent language, without any proof mistakes. It has to satisfy the writing and punctuation requirements of the Lithuanian (English for foreign students) language. The ideas have to be laid out clearly, consistently, intelligibly and systematically. The computerized illustrations (diagrams, schemes, pictures, photos) have to be of good quality and sufficiently expressive. Margins of the text: from the left – 30 mm, from the top and the bottom – 20 mm, from the right – 10 mm. The pages (except for the title page) shall be enumerated. The page’s number shall be written in the lower right corner of the page, in Arabic numerals, without any dots or commas. The first line of each paragraph shall be dragged from the left margin by 10 mm. The bilateral justification shall be set for the paragraphs – the text shall be justified according to the right and left margins. The space of 1,5 lines shall be left between the lines. The titles of the sections shall be dragged from the text by 2-line spacing, and the titles of sub-sections – by 1,5 lines. The thesis shall be printed in the font Times New Roman. The height of the characters of the main text is 12 pt (font). The Italic may be used in the text, for example, when Latin terms are written. The percent shall be marked in words in the text – proc., while the mark % shall be used in the English text. The report is divided into chapters, sections and subsections. The titles of the chapters shall be written in capital letters in 16 pt bold font. The titles of the sections shall be written in 14 pt, subsections– 12 pt bold font, in small letters, except for the first letter. The title of the chapter shall be written in the new page, while the sections and subsections remain in the same page. The titles of the chapters and the sections shall be laid out symmetrically within the page’s width, while the titles of subsections shall be started as the first line of the paragraph.

 The number of chapters, sections and subsections depends on the topic; however, the smallest structural unit should not be smaller than 0,5 page. The main keywords present in the title of the topic have to reflect and be related to the titles of the chapters, sections and subsections. The titles of the chapters, sections and subsections have to correspond to the content and reflect the consistent and logical examination of the topic.

The headlines’ words cannot be transferred. No dot is put after the headline. The headline cannot stay on one page, while the text starts on the other. The sections receive the number 16 of the chapter and its running number (e.g., 1.1., 1.2., etc.). The subsections receive the number of the section and its running number (e.g., 1.1.2., 1.1.3., etc.).

**The tables** shall be enumerated successively along the entire thesis in Arabic numerals. o The number of table shall be wriiten above the table in the left corner next to the word "Table". Both the table number and the word "Table" shall be written in 12 pt *Italic* bold font. The title of table shall be written above it starting with capital letter in 12 pt *Italic* font (e.g.: **Table 1**. *Dynamics of Human Salmonellosis in Lithuania in 2005-2015*). The informative title shall be given to the tables. If the name does not fit in one line, then the 1.5 interval between the title strings is not used (1 interval spacing shall be selected). After the title of the table, the dot is not given. If the tables are created by other authors, the number of source in the brakets has to be given. o Explanations/notes (if necessary) shall be written bellow the table in 10 pt font. o The references to the table have to be given in the text. In all the cases the tables have to be closely related to the text’s material and thus they have to be commented accordingly. o The table has to be laid out vertically on the page or inserted in such a way that it should be rotated clockwise while reading the text. o The dimensions of values shall be written in the table’s headline under

the title of the descriptive value; therefore, only the numbers shall be presented in the main part of the table. o The numbers in the columns have to be aligned. No free space can be left in the table. If no data are available, the dash shall be written. The recurrent numbers cannot be replaced by quotation marks. The quotation marks shall be written only when the words repeat in the table’s columns. o Small tables may be inserted in the same page one under another. In case of very long tables, which cover several pages, when the tables are transferred, the top headlines shall be repeated on the next pages and such as inscription as “Continuation of the Table 2” shall be written on the top of the table. o The first titles of top headlines of the tables shall be started with capital letter. If the table in vertical columns is divided in smaller parts under the top headline, the headlines of all the divided (smaller) columns shall be started with small letters (in the table, words and numbers shall not be written in bold)

**Pictures** (illustrations/figures) shall be enumerated successively along the entire thesis in Arabic numerals. o The number of picture shall be wriiten bellow the picture in the middle next to the word "Fig.". Both the picture number and the word "Fig." shall be written in 12 pt *Italic* bold font.

The picture’s title shall be written bellow the picture starting with capital letter in 12 pt *Italic* font using the abbreviation “Fig.” (e.g.: **Fig. 1.** *Dynamics of Human Salmonellosis in Lithuania in 2005-2015*).

The informative title shall be given to the pictures. If the name does not fit in one line, then the 1.5 interval between the title strings is not used (1 interval spacing shall be selected). After the title of the picture, the dot is not given. o Explanations/notes (if necessary) shall be written under the picture in 10 pt font. o Illustrations – graphs, photos, schemes and drawings are also considered to be pictures – shall be of good quality and sufficient resolution. o The titles of the x and y axes and the units of measurement shall be indicated. 17 If the pictures are created by other authors, the number of source in the brakets has to be given. The references to the picture have to be given in the text. In all the cases the illustrations have to be closely related to the text’s material and thus they have to be commented accordingly. The text can not repeat the results shown in the picture. The illustrations shall be laid out in the text just under the references to them or in the annexes. The illustrations with their numbers and titles have to be in one page and cannot be transferred.

**Quotation of literature sources**. When the literature sources are quoted in the text, the Vancouver system should be used. When the source is quoted for the first time in the text, its number in Arabic numerals should be indicated, e.g., (1). If the same source I quoted in the other place in the text, the original quotation number should be left. When the author is mentioned in the text, the following words should be used: P. Petraitis (5) states that... When several sources are quoted in the same place, the numbers should be separated by comma, e.g., “Protein metabolism in the rumen is the result of the metabolism of microorganisms (16, 19)”. If several sources are written in sequence the shortening is used e.g., “Bacteria of rumen absorb and process non-protein nitrogen and synthesize it into proteins (5–7, 12). The dash cannot be used between the quoting sources if only to adjacent sources are quoted (1, 2). The text shall be quoted and the statements of other authors shall be rephrased without distortion of essence. The statements, which repeat the thoughts of other authors word by word, shall be presented as quotations (within the quotation marks). **It is unethical and considers as plagiarism to publish the text of some work in the theses using original ideas or thoughts of other author without reference to that author.**

***If you have self-photographed photos, they must be numbered.*** *In the brakets has to be given* ***(The photo was taken by myself).* *The references to the photos have to be given in the text. In all the cases the photo have to be closely related to the text’s material and thus they have to be commented accordingly.***

**The report must include the following sections**:

1. **Title page (Annex 4);** the written: name of the university, study program, students name, surname, course, group, name, surname of the practice manager; place of practice base, year. **The second page - confirmation of the independence of practice report (Annex 5), which you must include and sign.**
2. **Introduction** **(from 0,5 to 1 page);** Practical disclosure of the pre-clinical production animla practice in the practical base (where the practice was performed, general knowledge about the practic base, its specifics; statistics: how much is kept animals, the amount of production). Formulation of the aim of the practice
3. **Descriptive part**;This section describes the practice activities (depending on the chosen Practice base), according to the individual tasks of each subject. All parts (veterinary hygiene, welfare, rearing, breeding, feeds and animal nutrition) shall be written **in separate sheets**. **The description of each parts begins on a new page. When writing, upload the described task and provide a description at the bottom.**
4. If the student performs practice in two practice bases, i.e. a dairy cattle farm and another selected practice base (poultry, pig, sheep and goat farms), two reports, logbooks, reflections are filled out for each animal species separately. Receives evaluations from two Supervisors.

* 1. ***Part of Veterinary Hygiene:***

* + 1. *Biosecurity measures used in the animal housing environment (dairy cattle, pigs, sheep, goats, poultry):* 
       1. To evaluate and describe how biosecurity is ensured;
       2. To evaluate and describe the cleaning and disinfection solutions and tools (names of chemical disinfectants and cllening solutions, active ingredients of chemical solutions; when and how cleaning solutions and tools and disinfectants are used);
       3. To evaluate and describe how deratisation, desinsectisation is carried out, if any;
       4. Whether and how, if so, protection against wildlife applies.
    2. *Hygiene in the animal housing environment (dairy cattle, pigs, sheep, goats):* 
       1. To evaluate and describe the elements of building (foundations, walls, floors, windows, roof) in farm buildings where animals are kept;
       2. To evaluate and describe beds, feeders, watering systems;
       3. To evaluate and describe of manure removal systems, bedding (in what way and how many times a day is the manure removed, in what way and how many times a week is it cleaned (changing the bedding);
       4. To evaluate and describe constitutional ration area (open yard);
       5. To calculate the area of the farm building where the animals are kept. What area per animal;
       6. To evaluate and describe the lighting used on the farm (natural or artificial);
       7. To evaluate and describe the ventilation installed on the farm (natural or artificial);
       8. How breeding technologies applied on the farm can affect animal health and productivity;
       9. What measures of hygiene are used to reduce the effects of heat stress;
       10. What is ambient temperature in farm and outside;
    3. *Animal hygiene (dairy cattle, pigs, sheep, goats):* 
       1. To evaluate and describe the care of animal skin, fur and limbs, hooves;
       2. How to maintain animal hygiene on the farm, what measures are in place (how many times a week the animal is cleaned);
    4. *Poultry hygiene*:
       1. To evaluate and describe the building elements of the poultry house (foundation, walls, floor, roof) due to the optimal housing conditions of the birds;
       2. To evaluate and describe the assessment of bird housing technology, ensuring environmental hygiene and bird health and productivity;
       3. To evaluate and describe how environmental hygiene is maintained.

**Conclusion, remarks, suggestions**.To formulate conclusions - what was seen on the farm during practice and make suggestions or observations (justifying what is good and what is bad, make suggestions). Compared to the limit values.

* 1. ***Part of Animal Welfare:*** 
     1. Evaluate behaviour of farm animals on keeping place and identify examples of abnormal pathological behaviour and other behaviour related to animal welfare problems

(vocalization, movements, lying, feeding, and aggressive behaviours, other symptoms such as coughing etc.)

* + 1. Observe animal/animals and detect behaviours – duration and time according to ethogram;
    2. Take photos of different behaviours;
    3. Present behavioural data graphically (column chart with observation interval (hours) on horizontal axis and proportion of behaviours in % on vertical axis);
    4. Analyse factors that may influence animal behaviour;
    5. Formulate conclusions about how animal behaviour corresponds to normal situation and give suggestions for correcting behaviour in case abnormalities or stereotypies.
    6. Analyse found normal or altered behaviour using scientific literature (resources from LSMU library, scientific data bases, Google Scholar, Springer.link.com/search and other available access).
    7. Evaluate fulfilment of animal welfare requirements on animal’s keeping place:
    8. Assess exterior of at least 30 % animals (at least 100 birds in large poultry houses) paying attention to external skin lessons, wounds, callus, scratches. Count average number of such lessons per animal. Take factual evidence (photos);
    9. Assess exterior of at least 30 % animals (at least 100 birds in large poultry houses) paying attention to cleanliness – external cover of hairs, fur, skin or feathers with dirt, litter, excrements. Approximately assess average dirty area in % compared to total skin area of animal. Take factual evidence (photos);
    10. Measure area of water and feeding thoughts (or count number) per animal, assess cleanliness (amount of dirty thoughts in %);
    11. Present all raw data in form of sheet and summarized data showing amount of affected animals compared to all observed animals, in %;
    12. Analyse possible reasons for external lessons and cleanliness situation, give conclusions about how current situation corresponds to requirements, give recommendation how situation can be improved (in case of non-compliance).

**Conclusion, remarks, suggestions**

***5.3. Part of Animal Rearing:***

5.3.1. *Evaluation of housing technologies and production of different pig groups:*

To evaluate and describe analysed pig group' (sows, fattening pigs) housing technologies;

To analyse and describe pig (reproductive characteristics of the sow - fertility; piglet size; uniformity, numeracy etc. of piglets nests; fattening and meat properties of fattening pigs) productivity indicators;

To analyse and evaluate the zootechnical parameters of born and weaned piglets;

To analyse and evaluate the meat quality of fattening pigs (if fattening pigs are slaughtered).

5.3.2. *Evaluation of housing systems and production (meat, eggs) of different poultry species*:

* + - 1. To compare of different poultry keeping systems (microclimate indicators, lighting, etc.).

5.3.2.2. To analyse the influence of different housing systems on poultry productivity indicators (for laying hens - laying rate, feed consumption, feed consumption per 1 kg of egg mass produced, mortality; for broiler chicken – body weight, feed consumption, mortality).

5.3.2.3. To determine the influence of different keeping systems on the quality of poultry production (eggs, chicken).

5.3.2.4. To assess resulting production, taking into account A and B classes’ requirements.

5.3.3. *Determination of the exterior and production of differently aged sheep:*

* + - 1. To determine the exterior of differently aged sheep;
      2. To determine the production of different sheep breeds;

5.3.3.3.To determine the housing technique and conditions of of differently aged sheep.

5.3.4. *Cow and different age offspring housing technologies, milking technologies and equipment used:*

5.3.4.1. To evaluate the rearing and housing technologies of cattle offspring of different ages and different economic purposes;

5.3.4.2. To evaluate the housing and maintenance technologies of cows in lactation and dry periods;

5.3.4.3.To evaluate cows productivity and milk quality indicators;

* + - 1. To evaluate the general development of the body of cows, limbs and udder, and its suitability for mechanized milking;
      2. To assess the condition of cow's milking equipment;
      3. To evaluate the cows milking process (udder preparation, use of antiseptics, organization of milking).

**Conclusion, remarks, suggestions**

* 1. ***Part of Animal Breeding*** 
     1. To evaluate the diversity of cattle breeds kept on the farm (what breeds of animals are bred).

5.4.2. To assess on the basis of data of animal origin data collected in the farm:

5.4.2.1. which breeding of cows is applied : purebreds, crossbreds (indicating which breeds are crossed), hybrids (indicating which species are crossed);

5.4.2.2. what breeding methods are used on the farm;

5.4.2.3. whether related mating is applied.

**If related mating is applied, specify:**

\* what are the types of related mating (provide one pedigree table of origin, by showing the identified type);

\* what are the degrees of related mating (provide one table of origin, by showing the determined degree);

\* according to the identified types of related mating, please write the cases of related mating according to the Šaporužas formula (one example for each determined type of related mating);

\* calculate the inbreeding coefficient (one example for each identified type of related mating).

5.4.3. Provide the breeding objectives of cows.

5.4.4. Describe how cows are selected on the farm:

5.4.4.1. What are the main objectives and criteria for the selection on the farm.

5.4.4.2. Provide the indicators of the assessed (evaluated) cows in tables or figures according to the number of lactation (duration of lactation, milk yield, kg, milk fat kg and %, milk protein kg and %, somatic cell count, duration of servis period, duration between calvings, duration of calving). Write conclusions.

5.3.4.3. Compare averages obtained in the farm with averages of Lithuania population ( the averages according to different breeds You will find in the webpage https://www.vic.lt/leidiniai/apyskaita/ , download APYSKAITA, use tables: a) Insemination rusults of recorded cows and heifers ( by bredds in all herds), b) Average no. of cows milk production data per cow / year and number of lactations.

5.4.5. Analyze the selection of pairs of cows on the farm:

5.4.5.1. How selection of cows is performed on the farm (pairs are selected individually for each female, one or two reproductors (males) for the whole herd, etc.).

5.4.5.2. Determine the offsprings of several reproductors (males) are reared on the farm. (Provide their numbers and / or names, breed).

5.4.5.3 Evaluate whose (name of reproductor, or male) offsprings had the best results ( highest milk yield, milk quality and reproduction properties). Draw figures and write conclusions.

5.4.5.4. Evaluate the breeding traits of offsprings, of the three most commonly used reproductors.

5.4.5.5. Evaluate ( write a summary) whether the matings on the farm meets the selection objectives.

**Conclusion, remarks, suggestions**

* 1. ***Part of Feeds and animal nutrition:***

5.5.1.Evaluate the soil’s physical properties (granulometric structure, color, smell, etc…) and then recommend which agricultural plants to grow in said soil;

* + 1. Evaluate the quality of conserved, combined or specialized feeds using the sensory method;
    2. Evaluate the wholesomeness of animal nutrition (the nutritional and energetic value of a ration);
    3. What is the count of technological groups and what is the differences in feeding ratios between those groups;
    4. How much feed (kg DM) single cow receives in different technological groups;

**Conclusion, remarks, suggestions**

1. **Conclusions, comments, suggestions;** your own analysis, suggestions, recommendation, compare with recommended rates. **Shall be written after each part separately**.

To find out about the occurrence of infection diseases, non-infectious diseases, obstetric-gynecological, limb and other diseases on the farm (percent of the total number of animals/month)

-infection disease (percent/month);

- non infectious diseases (percent/month);

-obstetric-gynecological (percent/month);

- lesions of the limbs (percent/month);

-other diseases (percent/month);

*And*

to find out what is the cull rate percent/month and the reasons;

to find out the percent/month and reasons for the loss of cows;

to find out the percent/month of calf loss and the reasons;

Write an analysis by presenting your opinion as to the farm's available fodder base; deficiencies or inconsistencies in veterinary hygiene and animal welfare; animal rearing and keeping technologies can influence these problems;

1. **Logbook** (Annex 2). Free written form what the student did during the Practice time. The Logbook is not graded, but must be filled every day, otherwise the repot will not be assessed.
2. **Reflection** (up to 1 pages); Describtion about the Practice according the following questions:

* In which area do you feel the most advanced and why?
* What skills do You need to improve? Why do You think so?
* Evaluate the practice base influence on Your competencies acquisition?
* The **positive** and negatyve aspects of the practice, provide conclusions and suggestions for improving the Practice.

Annex 2

**Logbook**

**(example)**

**Shall be record in every day of the Pre-clinical Practice**

|  |  |
| --- | --- |
| **Date** | **Record** |
| **1 day (exact date and time)** | *The description in a free form what the student did during the prie Practice on a particular day* |
|  |  |
|  |  |
|  |  |
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|  |  |
|  |  |

Annex 3

Students **PRE-CLINICAL PRODUCTION ANIMAL PRACTICE**

Practice Supervisor’s EVALUATION and comments on the student and his practise

.......................................................................................................... a 2- year student of the program of

(Full name)

Veterinary Medicine of Faculty of Veterinary Medicine of Lithuanian University of Health Sciences, carried out Pre-clinical production animal practice at the

..........................................................................................................................................................

(Company name) from year 20 ...., .................... month. ....... day to year 20...., ....................... month. ....... day.

I ………………………………………………….., practice supervisor, hereby evaluate the student’s

(Full name)

skills acquired during the Practice and declare that information provided in **Logbook**  and **REPORT OF CLINICAL PRACTICE** are true and correct

|  |  |  |
| --- | --- | --- |
|  | **Rating (1-10)** | **Comments** |
| ***Ability***  Animal handling skills,  husbandry knowledge |  |  |
| ***Independence***  Ability to work independently |  |  |
| ***Teamwork***  Ability to work in a team |  |  |
| ***Personal qualities***  Resposibility, punctuality, ability to perform task |  |  |
| ***Communication***  Ability to engage in discussion of operation of animal  enterprise and ask questions |  |  |
| **Final Grade** *(Total sum of grades divided by 5)* |  |  |

\* Meanings and percent values of the grades and their correspondence to the level of achievements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grade** | **Meaning** | **Percent values (when a portion of the planned knowledge, skills, and abilities within the study programme is achieved)** | **Description** | **Level of achievement** |
| 10 (ten) | Excellent | 95-100 % | Excellent, exceptional knowledge and skills | Excellent |
| 9 (nine) | Very good | 85-94 % | Solid, good knowledge and skills |
| 8 (eight) | Good | 75-84 % | Better than average knowledge and skills | Average |
| 7 (seven) | Moderate | 65-74 % | Average knowledge and skills |
| 6 (six) | Satisfactory | 55-64 % | Below average knowledge and skills (abilities) | Borderline |
| 5 (five) | Weak | 50-54 % | Knowledge and skills (abilities) met minimal requirements |
| 4 (four) | Insufficient | 40 – 49 % | Minimal requirements are not met | Inapplicable |
| 3 (three) | Unsatisfactory | 30-39 % |
| 2 (two) | Bad | 20-29 % |
| 1 (one) | Not assessed | Less than 20 % |

The final assessment of acquired competencies is calculated by dividing the total sum of all student's grades in the competencies gained by the number of the assessed competencies (which is 5). **A mathematical rounding rule is not applied.**

The student’s practice is considered to be failed if the final grade of the assessed acquired competencies is lower than **5**.

**Comments and suggestions for Pre-clinical Practice improving:**

..................................................................................................................................................................... .....................................................................................................................................................................

..................................................................................................................................................................... .....................................................................................................................................................................

Practice supervisor’ ***EVALUATION should be sent to the Coordinator by e-mail or by post*** Lietuvos sveikatos mokslų universitetas, Veterinarijos akademija, Centriniai rūmai, 110 kab. Tilžės g. 18, LT47181, Kaunas

**Practice supervisor**……………………………………, ………………………………………

(full Name Surname) signature

**Companie’s stamp**

Annex 4

Example of title page

# LITHUANIAN UNIVERSITY OF HEALTH SCIENCES VETERINARY ACADEMY

Faculty of Veterinary Medicine

# Name Surname PRACTICE PLACE PRE-CLINICAL PRODUCTION ANIMAL PRACTICE

of Integrated Studies of Veterinary Medicine

Practice Supervisor: Name Surname

KAUNAS year

Annex 5

# CONFIRMATION OF THE PRE-CLINICAL PRODUCTION ANIMAL PRACTICE INDEPENDENCE OF PRACTICE REPORT

*(the name of the practice)*

**I ..................................................................... confirm, that the presented practice report and all its**

*(Student Name, Surname (handwritten))* **parts:**

* **have been done by me;**
* **have not been used in any other Lithuanian or foreign university;**
* **I have not used any other sources not indicated in the work and I present the complete list of the used literature\*.**

**I am informed (*aware*) that any violation of the principle of the fair competition, cheating, plagiarism, duplication, otherwise violate of the Clause Academic Honesty of the Study Regulations of LSMU might give cause for expelling me from the University.**

........................................................................................................................................................................

*(author’s Name, Surname (handwritten), signature, date)*

*\*this sentence is written only in those practice procedures for which literature sources will be used in writing the reports.*

Annex 6

**LITHUANIAN UNIVERSITY OF HEALTH SCIENCES VETERINARY ACADEMY THE**

# FORM FOR THE EVALUATION OF THE VETERINARY MEDICINE STUDY PROGRAM STUDENT PRE-CLINICAL PRODUCTION ANIMAL PRACTICE

*Author of the work:*

*Practice report title:*

*Study programme: Veterinary Medicine Work volume*: .... . pages

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **General Practice Assessment Criteria (evaluation justification required)** | **Coefficient** | **Rating (0-10 points)** | **Score** |
| 1. | **Formal Compliance** | **0,1** |  |  |
|  | Compliance of structural parts of the report to requirements set in the Requirements. Correct citation (if it was done) of information sources in the report. Creation of a bibliographical list (if it was done). Report compliance to the requirements of the style (the text is fluent, consistent, scientific) and correct language. Technical formalization of work text, tables, pictures, and other information following the requirements. |
| *Justification of the evaluator's assessment:* |
| **2.** | **Introducion** | **0,1** |  |  |
|  | Practical disclosure of the pre-clinical production animal practice in the practical base (where the practice was performed, general knowledge about the practic base, its specifics). Formulation of the aim of the practice |
| *Justification of the evaluator's assessment:* |
| **3.** | **Descriptive part of the Practice** | **0,6** |  |  |
|  | preparation of the report according to the structure and tasks of the report in the veterinary laboratory. |
| *Justification of the evaluator's assessment:* |
| **4.** | **Conclusions (and recommendations / suggestions)** | **0,2** |  |  |
|  | Conformity of the conclusions with the tasks of the practice in the practice base, their specificity, the compliance of the recommendations and suggestions with the tasks of the practice. |  |  |  |
| *Justification of the evaluator's assessment*: |
| Evaluation of the Practice report score (*the score is not rounded to a whole number, leaving two decimal places)*: | | The sum of score (10) | |  |
|  | |  |

Name, Signature, Date of Commissioner: