

ECPHM exam

Submission form for essay questions / exercises

Dear colleagues,

The examination committee kindly asks you to provide exam questions for the upcoming ECPHM exams. We appreciate your contribution and would like to remind you that you will also receive valuable credit points for your re-accreditation, when submitting appropriate questions! Multiple choice questions are credited with 1 point per question and all other questions are credited with 2 points per question.

Please read the following notes carefully and ensure that questions comply with the format as described below.

For short and long essay questions or problem solving exercises:

- Reading and answering the question should not take more than 5 minutes for short essay questions, 20 minutes for long essay questions and 30 minutes for problem solving exercises
- There has to be a clear question or problem rather than a hypothetical question
- Please provide a model answer, preferably written as a list of facts, that should be included in the candidate's answer
- Please provide at least one reference for the model answer and avoid debatable answers!
- When using tables, figures, etc., these must be submitted separately via email to [REDACTED]
- Please name these files named as follows:
YOURNAME_QUESTION_NO_TAB_NO.bmp or YOURNAME_QUESTION_NO_FIG_NO.bmp

Example (Long essay questions):

Question:

A feed mill has developed a new feed product (A) for piglets. Before it is marketed, the producer wants to evaluate the growth performance by the new feed compared to their own standard product (B) and to a similar product of a competitor (C). The producer has access to a large number of piglets that can be allocated to each of the three feed groups.

1. Is this an experimental or an observational study? Why/why not?
2. Suggest a study design.
3. Could you suggest an alternative design, if there is a limited number of piglets?
4. Compare the two designs and discuss advantages and disadvantages.

Answer

1. This is an experimental study. The researcher decides which animals should have each feed product.
2. As food intake, growth and health of individual pigs within a pen are not independent but are related to each other, this should be taken into account in the study design. To extrapolate performance data to other herds, the herd/farm effect should be taken into account. A randomized block design with pens as observational unit is a preferred design. In a randomized allocation of pigs to one of either groups A,B, or C, as a parallel group design, there will be a pen effect that should be taken into account.

To extrapolate results to other farms, the herd/farm effect should be taken into account, and inclusion of several herds in the study is preferred to correct for the herd effect.

3. An alternative would be a cross-over study design with individually housed and fed piglets, which requires a smaller number of piglets.

4. The alternative study design with individually housed and fed pigs requires a smaller number of piglets. Each piglet is randomly allocated to one of the three different feed products. The comparison of treatments is performed between piglets and therefore, the between piglet variation has an influence on the result. Theoretically, most efficient would be a cross-over design, where each piglet is given all three products in a randomised order and the comparison of products is performed within piglets. The between piglets variation has no influence on the result. However, using a cross-over design assumes no carry-over effect between treatments. Whether this is correct or not should be evaluated before this study design is used. There is another problem in the suggested cross-over study as the piglets are growing. The starting point is not the same in the three periods, as the piglets are growing. Nutrient requirements will also differ in the three periods. This might have an influence on the result. A randomized block design with pens as observational unit will need more pigs, and thus an increase of the size of the trial. Randomized allocation of pigs to each pen allows taking an individual pig as observational unit, if corrected for the pen effect. Disadvantage of mixing is an increased infection risk by intensifying contact structures.

Points: 5 points for question 1-3 and 15 points for question 4 – 30 points in total

We kindly ask you to submit your questions using this form. If you want to submit more questions, feel free to fill this form several times. Once a filled form has been send via email, you can use the 'Delete' button to clear the form for the next round.

NOTE: If you are experiencing severe problems with this form, please submit your questions simply as a Word.docx attachment via email to [REDACTED] Please do not include pictures in the Word file, but send them as separate attachments.

Last Name, First Name

Address

email

Question type

Question

Additional
Material

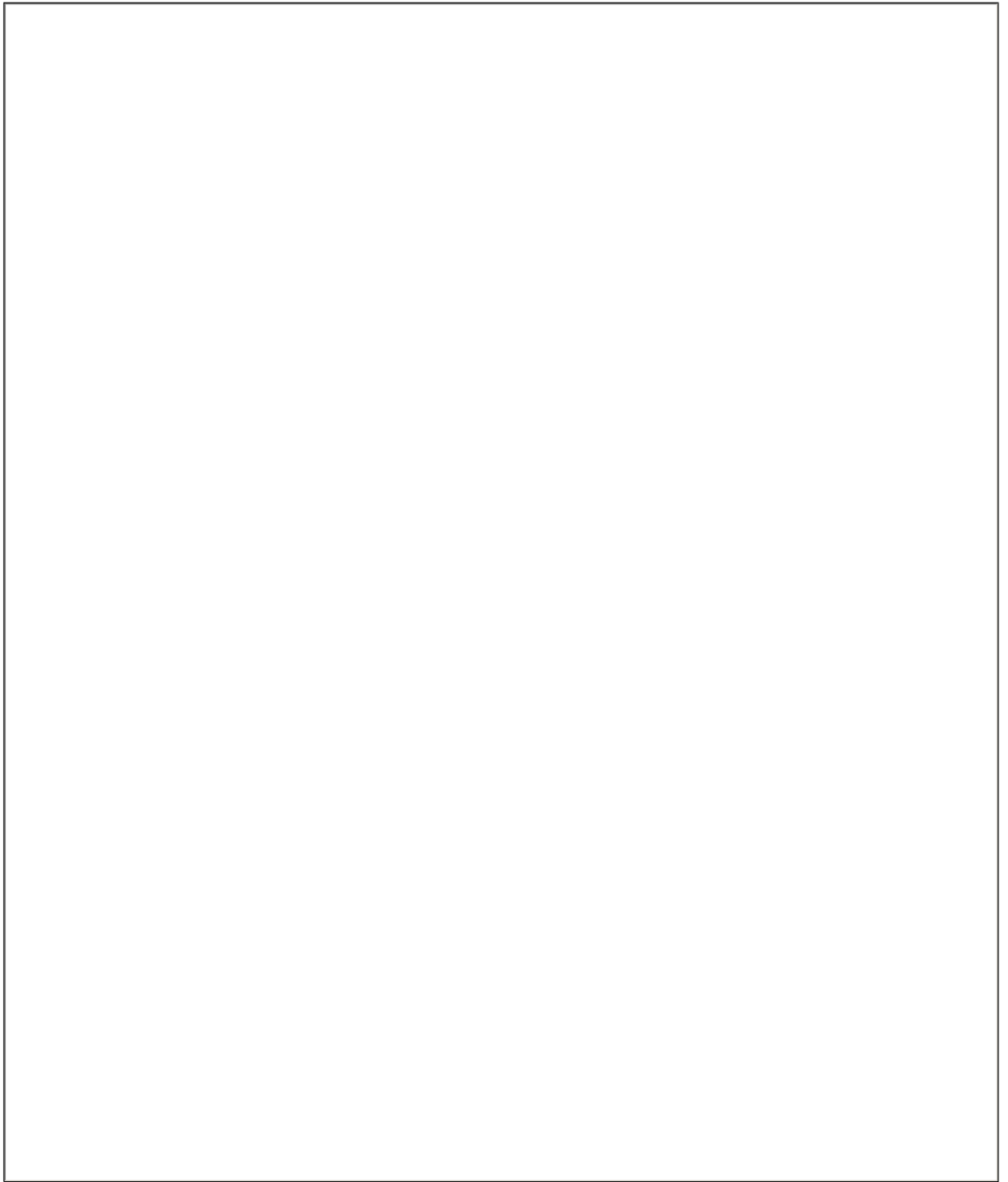
Table

Figure

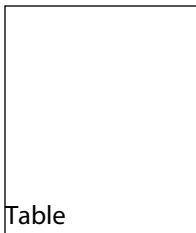
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Answer



Additional
Material



Table



Figure