

SC5132&1  
WASSCE 2019  
ANIMAL  
HUSBANDRY 2&1  
Essay and Objective  
3 hours

2 & 1

Name.....

Index Number.....

THE WEST AFRICAN EXAMINATIONS COUNCIL

West African Senior School Certificate Examination  
for School Candidates

SC 2019

ANIMAL HUSBANDRY 2 & 1  
Essay and Objective

3 hours

*Do not open this booklet until you are told to do so. While you are waiting, read and observe the following instructions carefully. Write your name and index number in ink in the spaces provided above.*

*This booklet consists of two papers. Answer Paper 2 which comes first, in your answer booklet and Paper 1 in your Objective Test answer sheet. Paper 2 will last 2 hours after which the answer booklet will be collected. Do not start Paper 1 until you are told to do so. Paper 1 will last 1 hour.*

*Answer four questions from this section.  
Credit will be given for clarity of expression and orderly presentation of material.  
All questions carry equal marks.*

1. (a) Name **three** breeds of goats reared in Ghana. [3 marks]
- (b) Explain **each** of the following practices as used in livestock management:  
(i) disbudding in cattle;  
(ii) flushing in sows;  
(iii) steaming up in sheep. [9 marks]
- (c) Give **four**  
(i) advantages of the free range system of rearing animals;  
(ii) disadvantages of the free range system of rearing animals. [8 marks]
2. (a) Explain **each** of the following terms as used in animal nutrition:  
(i) roughage;  
(ii) concentrate. [6 marks]
- (b) Give **six** reasons why protein is important in the diet of farm animals. [6 marks]
- (c) (i) Define the term *fodder crop*.  
(ii) Name **two** pasture legumes used to feed ruminants. [4 marks]
- (d) State **four** causes of feed contamination in animal production. [4 marks]
3. (a) (i) Mention the **four** organs responsible for excretion in farm animals.  
(ii) Name **one** substance excreted by **each** of the organs mentioned in (a)(i). [8 marks]
- (b) State **four** functions of  
(i) blood;  
(ii) skin. [8 marks]
- (c) State **four** activities that should be carried out to ensure high performance of improved breeds of sheep. [4 marks]
4. (a) Mention **two** sources of **each** of the following nutrients in poultry production:  
(i) calcium;  
(ii) carbohydrate. [4 marks]

- (b) State **four** ways in which egg breakage in poultry house could be reduced. [4 marks]
- (c) Give **four** reasons why chicken production is more popular in Ghana than duck production. [8 marks]
- (d) The recommended stocking rate for ducks in a semi-intensive run is 0.3 m<sup>2</sup> per duck. If a community has a grass run of 0.2 hectares, how many ducks would be needed to fully stock the run? [4 marks]

5. (a) (i) Explain **each** of the following terms as used in animal production:  
 ( $\alpha$ ) pest;  
 ( $\beta$ ) pathogen;  
 ( $\gamma$ ) zoonotic disease.  
 (ii) Give **one** example of **each** of the terms in (a) (i). [9 marks]
- (b) Discuss foot and mouth disease under the following headings:  
 (i) causal agent;  
 (ii) two symptoms;  
 (iii) two control measures;  
 (iv) two animals that could be infected. [7 marks]
- (c) Explain **two** factors that could increase parasite population on an animal farm. [4 marks]
6. (a) State **four** ways in which **each** of the following factors affect animal production:  
 (i) low temperature;  
 (ii) high relative humidity. [8 marks]
- (b) State **four** ways by which animals grazing in a hot weather maintain a constant body temperature. [4 marks]
- (c) State **five** effects of delayed removal of litter on poultry production. [5 marks]
- (d) State **three** ways of controlling cannibalism in poultry. [3 marks]

**END OF ESSAY TEST**



**DO NOT TURN OVER THIS PAGE  
UNTIL YOU ARE TOLD TO DO SO.**

**YOU WILL BE PENALIZED SEVERELY IF YOU ARE  
FOUND LOOKING AT THE NEXT PAGE BEFORE  
YOU ARE TOLD TO DO SO.**

**WHILE YOU ARE WAITING, READ THE FOLLOWING  
INSTRUCTIONS CAREFULLY**

PAPER 1  
OBJECTIVE TEST  
[50 marks]

1 hour

- Use **2B** pencil throughout.
- On the pre-printed answer sheet, check that the following details are **correctly** printed:
  - In the space marked *Name*, check your **surname** followed by your **other names**.
  - In the spaces marked *Examination*, *Year*, *Subject* and *Paper*, check 'WASSCE', 'SC 2019', 'ANIMAL HUSBANDRY', and '1' in that order.
  - In the box marked *Index Number*, your **index number** has been printed vertically in the spaces on the left-hand side, and each numbered space has been shaded in line with each digit. **Reshade** each of the shaded spaces.
  - In the box marked *Subject Code*, the digits 513213 are printed vertically in the spaces on the left-hand side. **Reshade** the corresponding numbered spaces as you did for your index number.
- An example is given below. This is for a female candidate whose *name* is Mariam Esi KWAQ. Her *index number* is 7102143958 and she is offering *Animal Husbandry* 1.

**THE WEST AFRICAN EXAMINATIONS COUNCIL**  
**ANSWER SHEET**

PRINTED IN BLOCK LETTERS	GHA
Name: <b>KWAQ MARIAM ESI</b>	
Examination: <b>WASSCE</b>	Year: <b>SC2019</b>
Subject: <b>ANIMAL HUSBANDRY</b>	Paper: <b>1</b>

**INSTRUCTIONS TO CANDIDATES**

- Use grade **BB** pencil throughout.
- Answer each question by choosing one letter and shading it like this: **A B C D E**
- Erase completely any answer you wish to change.
- Leave extra spaces blank if the answer spaces provided are more than you need.
- Do not make any markings across the heavy black marks at the right hand edge of your answer sheet.

INDEX NUMBER	
7	0 1 2 3 4 5 6 7 8 9
1	0 1 2 3 4 5 6 7 8 9
0	0 1 2 3 4 5 6 7 8 9
2	0 1 2 3 4 5 6 7 8 9
1	0 1 2 3 4 5 6 7 8 9
4	0 1 2 3 4 5 6 7 8 9
3	0 1 2 3 4 5 6 7 8 9
9	0 1 2 3 4 5 6 7 8 9
5	0 1 2 3 4 5 6 7 8 9
8	0 1 2 3 4 5 6 7 8 9

SUBJECT CODE	
5	0 1 2 3 4 5 6 7 8 9
1	0 1 2 3 4 5 6 7 8 9
3	0 1 2 3 4 5 6 7 8 9
2	0 1 2 3 4 5 6 7 8 9
1	0 1 2 3 4 5 6 7 8 9
3	0 1 2 3 4 5 6 7 8 9

**For Supervisors only**  
If candidate is absent  
shade this space. ☐

Answer all the questions.

Each question is followed by four options lettered A to D. Find the correct option for each question and shade in **pencil** on your answer sheet, the answer space which bears the same letter as the option you have chosen.

Give only **one** answer to each question. An example is given below.

A *kid* is the young of a

- A. sheep.
- B. goat.
- C. cow.
- D. pig.

The correct answer is goat, which is lettered B, and therefore answer space B would be shaded.

☐ A ☒ B ☐ C ☐ D ☐ E

Think carefully before you shade the answer spaces; erase completely any answers you wish to change.

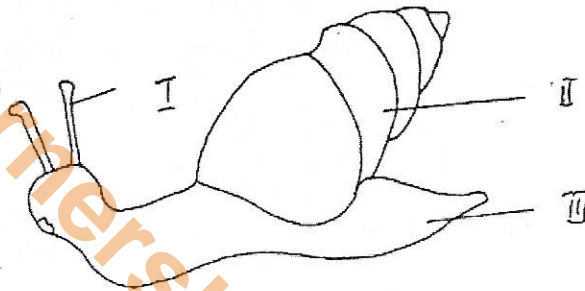
Do all rough work on this question paper.

Now answer the following questions:

1. The botanical name for Guinea grass is
  - A. *Andropogon gayanus*.
  - B. *Cynodon dactylon*.
  - C. *Panicum maximum*.
  - D. *Pennisetum purpureum*.
2. The incubation period for the egg of turkey is
  - A. 15 days.
  - B. 21 days.
  - C. 28 days.
  - D. 32 days.
3. The livestock marketing chain begins with the
  - A. consumer.
  - B. producer.
  - C. retailer.
  - D. wholesaler.
4. Anaemia in piglets could be prevented by providing them with
  - A. red soil.
  - B. antibiotics.
  - C. common salt.
  - D. vitamins.
5. Browsing by ruminants is the act of
  - A. chewing the cud.
  - B. feeding in groups.
  - C. unsupervised grazing.
  - D. picking leaves from shrubs.
6. Candling is done in a hatchery in order to remove
  - A. dirty eggs.
  - B. small eggs.
  - C. broken eggs.
  - D. infertile eggs.

7. Which of the following livestock diseases affect the reproductive system?
- Anthrax
  - Brucellosis
  - Mastitis
  - Rinderpest
8. In order to prevent bulls from eating crops during traction, they should be
- branded.
  - dehorned.
  - muzzled.
  - tethered.
9. Which of the following pairs of factors must be effectively controlled in artificial incubation?
- Temperature and humidity
  - Ventilation and turning
  - Temperature and light
  - Light and ventilation

The diagram below illustrates a farm animal. Use it to answer questions 10 to 13.



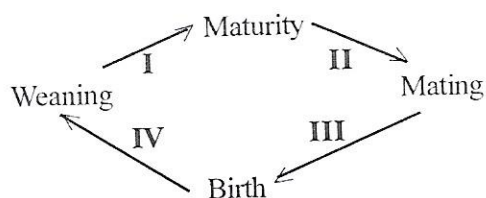
10. The part labelled I is called
- antenna.
  - eye.
  - foot.
  - tentacle.
11. Which of the following uses are associated with the part labelled II?
- Decoration
  - Feed ingredient
  - Liming
- I and II only
  - I and III only
  - II and III only
  - I, II and III
12. The edible parts are labelled
- I and II only.
  - I and III only.
  - II and III only.
  - I, II and III.
13. Which of the following products could be obtained from the farm animal illustrated?
- Bone
  - Chevon
  - Fur
  - Shell
14. Which of the following statements about artificial insemination is **not** correct?
- The offspring are always healthier than the parents
  - It enables the use of semen after the death of the donor
  - It reduces the spread of sexually transmitted diseases
  - Incapacitated males could be used



15. Which of the following feed ingredients is used to improve the quality of egg shells?
- A. Di-calcium phosphate
  - B. Fish meal
  - C. Copra cake
  - D. Mineral premix
16. Unlike local breeds of goats, exotic breeds are usually
- A. smaller in size.
  - B. fast growing.
  - C. black in colour.
  - D. more resistant to diseases.
17. Which of the following factors is **not** considered when selecting livestock?
- A. Egg production
  - B. Feed consumption
  - C. Body weight
  - D. Mortality
18. Which of the following statements is a disadvantage of the battery cage system of poultry production?
- A. Rate of egg production is high
  - B. Thick shelled eggs are produced
  - C. Egg pecking is prevented
  - D. Eggs which cannot be hatched are produced
19. The **correct** way of lifting a large rabbit is by grasping the skin over the
- A. loin.
  - B. neck.
  - C. shoulder.
  - D. thigh.
20. Some farm animals do **not** require vitamin B in their diet because it
- A. is synthesized by microbes in their rumen.
  - B. interferes with the metabolism of fat.
  - C. is not essential for their growth.
  - D. is not normally absorbed.
21. In poultry production, incubators are used to supply heat to
- A. day-old chicks for faster growth.
  - B. fertilized eggs for chick development.
  - C. cocks to increase their libido.
  - D. sick birds in cold weather.
22. Which of the following domestic fowls require the **highest** amount of protein in their diet?
- A. Chicks
  - B. Cocks
  - C. Growers
  - D. Hens
23. New-born livestock should be fed with colostrum **mainly** because it
- A. is easily digested by animals.
  - B. contains nutrients for survival.
  - C. contains antibodies for protection.
  - D. is the first milk produced.

24. Which of the following factors adversely affect feed utilization and productivity in poultry?
- High fibre content of feed
  - Low calcium diet
  - Water deprivation
- I and II only
  - I and III only
  - II and III only
  - I, II and III
25. The equipment used in concentrating heat for chicks during brooding is
- chick guard.
  - hover.
  - lamp.
  - thermometer.
26. Which of the following factors does **not** influence the distribution of farm animals in West Africa?
- Climate
  - Culture
  - Disease
  - Topography
27. The **correct** order in which food moves through the digestive system of the domestic fowl is
- crop → gizzard → proventriculus → duodenum.
  - crop → proventriculus → gizzard → duodenum.
  - proventriculus → crop → gizzard → duodenum.
  - proventriculus → gizzard → crop → duodenum.
28. Which of the following diseases usually occur during brooding of chicks?
- Yolk sac infection
  - Coccidiosis
  - Fowl pox
- I and II only
  - I and III only
  - II and III only
  - I, II and III
29. One of the reasons for dehorning cattle is to
- help to identify animals in the herd.
  - improve the growth rate of the bulls.
  - ease handling of animals.
  - prevent disease in the herd.

30.



The diagram above is an illustration of the life cycle of a farm animal.  
At which stage will lactation start?

- I
- II
- III
- IV



31. Feed wastage by birds in deep litter house could be minimized by
- providing guards for feeding troughs.
  - reducing the number of feeding troughs.
  - using plastic feeding troughs.
  - using different sizes of feeding troughs.
32. *Rinderpest* in cattle could be prevented by
- applying fungicide.
  - vaccinating regularly.
  - dipping in acaricide.
  - provision of balance diet.
33. Which of the following factors should be considered in the siting of a pig sty?
- Slope of the land
  - Vegetation cover of the land
  - Direction of the sun
- I and II only
  - I and III only
  - II and III only
  - I, II and III
34. The ration which provides just enough energy for normal physiological processes to take place in farm animals is known as
- balanced ration.
  - production ration.
  - maintenance ration.
  - daily ration.
35. Pasture for goats should contain some shrubs to provide opportunity for them to
- graze.
  - browse.
  - obtain protein.
  - exercise themselves.
36. Which of the following animals have large litter size?
- Grasscutter
  - Pig
  - Rabbit
- I and II only
  - I and III only
  - II and III only
  - I, II and III
37. The objective of flushing in female livestock is to
- increase chances of multiple birth.
  - improve disease resistance.
  - promote muscle development.
  - enable animals to come on heat.
38. Wing-web injection is administered to four weeks old chicks in order to prevent
- fowl pox.
  - fowl typhoid.
  - coccidiosis.
  - Newcastle disease.

39. The needle teeth of piglets are removed in order to
- A. make piglets grow faster.
  - B. prevent injury to the teat of sows.
  - C. allow piglets to suckle sufficient milk.
  - D. prevent piglets from biting the farmer.
40. All the offspring of the first generation of farm animals would be tall if the gene for tallness is
- A. dominant.
  - B. mutated.
  - C. recessive.
  - D. superior.
41. The quality of natural pasture could **best** be improved by
- A. burning the grass.
  - B. practicing zero grazing.
  - C. practicing mulching.
  - D. introducing legumes.
42. Temperate breeds of livestock which are imported to the tropics could suffer from
- A. worm infestation.
  - B. excessive rain.
  - C. heat stress.
  - D. frost bite.
43. Which of the following statements about pasture intended for use as silage is **correct**?
- A. It is prone to pest attack after flowering.
  - B. The nutrient content decreases after flowering.
  - C. Lush legumes and grass should be used.
  - D. Fibre content is high before flowering.
44. Deficiency of vitamin K in farm animals causes
- A. delayed blood clotting.
  - B. sterility in females.
  - C. night blindness.
  - D. rickets.
45. Fumigation of incubator and disinfection of brooder house are aimed at preventing
- A. fowl cholera.
  - B. fowl pox.
  - C. gumbo.
  - D. salmonellosis.
46. If the weight of a goat increased from 19 kg to 39 kg in 3 months, determine the average monthly weight gain.
- A. 6.7 kg
  - B. 13.0 kg
  - C. 19.3 kg
  - D. 20.0 kg
47. The device which helps to regulate temperature in an incubator is the
- A. hygrometer.
  - B. insulator.
  - C. thermometer.
  - D. thermostat.

48. Which of the following stomach compartments secretes digestive enzymes in ruminants?
- A. Abomasum
  - B. Omasum
  - C. Reticulum
  - D. Rumen
49. In which part of the digestive system of poultry is cellulose digested?
- A. Caecum
  - B. Crop
  - C. Intestine
  - D. Proventriculus
50. The development of the embryo in farm animals takes place in the
- A. infandibulum.
  - B. oviduct.
  - C. ovary.
  - D. uterus.

**END OF PAPER**