

THE PAPUA NEW GUINEA UNIVERSITY OF TECHNOLOGY

FIRST SEMESTER FINAL EXAMINATION –2020

DEPARTMENT OF AGRICULTURE – 3RD YEAR DEGREE

AG 309 – ANIMAL MANAGEMENT

TIME ALLOWED:- 3 HOURS. TOTAL MARKS = 100

INFORMATION FOR CANDIDATES:

1. You have 10 minutes to read the paper. You must not begin writing during this time
2. This exam paper has a total of 46 questions on 9 pages (including front page).
3. Answer all questions in sequential order
4. All answers must be written in the answer book. No other written material will be accepted
5. This is a closed book exam. Slide rules, calculators and log tables are permitted in the examination room. Notes, textbooks and other recording devices (e.g. mobile phones) are not allowed
6. Write your name and number clearly on the front page of the answer book. Do it now.
7. Marks for each question are shown in parenthesis at the end of each question.

**Question 1 to 40 are multiple choice questions. Answer all questions. 1.5 marks each
total = 60 marks**

- 1) What is the term used to describe the act of parturition in goats?
 - a) Farrowing
 - b) Lambing
 - c) Foaling
 - d) Kidding

- 2) What is the term used for a castrated pig?
 - a) Wether
 - b) Gelding
 - c) Barrow
 - d) Boar

- 3) Which of these adjectives refer to sheep?
 - a) Caprines
 - b) Ovines
 - c) Bovines
 - d) Equines

- 4) What is the average gestation length of ewes?
 - a) 114 days
 - b) 150 days
 - c) 280 days
 - d) 255 days

- 5) In which part of the alimentary canal of chickens can small stones be found?
 - a) Large intestines
 - b) Small intestines
 - c) Crop
 - d) Gizzard

- 6) The nutrient requirement of an animal depends on (select all correct options)
 - a) class of the animal (e.g. suckling, growing, lactating),
 - b) production type (milk, meat, laying)
 - c) Age of the animal
 - d) Production level.

- 7) Which of these does not cause disease in farm animals?
 - a) Microorganisms
 - b) Poisons in feed
 - c) Insects
 - d) Genetic abnormalities

- 8) Which of the following can be used to prevent disease on animal farms? (select all correct options)
 - a) Vaccination
 - b) Minimal disease herds
 - c) Test and slaughter
 - d) Fencing

- 9) When an animal transfers an existing response to a new stimulus, this is called what?
- Genetic adaptation
 - Acclimatization
 - Conditioning
 - Homeostasis
- 10) The climate in a shed or house which could be controlled artificially is known as what?
- Meso climate
 - Micro climate
 - Crypto climate
 - Macro climate
- 11) Which of the following is true with respect to average liveweight of broiler chicken flocks? (Select all correct options)
- Average liveweight of males is higher than that of females
 - Average liveweight of females is higher than that of males
 - Average liveweight of females is less variable than that of males
 - Average liveweight of males is more variable than that of females
- 12) The feed conversion ratio of broiler chickens is better (in terms of feed costs) when the chickens are younger
- True
 - False
- 13) A group of students were giving 60 day-old broiler chicks to look after. Six of the chickens died before maturity. What is the % Livability for this group
- 6%
 - 56%
 - 60%
 - 90%
- 14) Which of the following is/are specialised areas of poultry production? (Select all correct options)
- Poultry meat production
 - Poultry feed production
 - Table egg production
 - Hatchery and day old chicken production
- 15) At what age does a hen (chicken) usually start laying eggs?
- 6-8 wks
 - 10-12 wks
 - 16-18 wks
 - 20-23 wks
- 16) Under commercial egg production systems, at what age are layers culled normally?
- 24 wks
 - 60 wks
 - 80-85 wks
 - 100-110 wks

- 17) The system of rearing chickens where the birds have access to a large unfenced area of grassland for finding food is called what
- a) Free range
 - b) Free running
 - c) Scavenging
 - d) Semi-intensive
- 18) At approximately what age does a layer hen reach peak number of egg production ?
- a) 18-20 weeks
 - b) 23-24 weeks
 - c) 60-65 weeks
 - d) 80-85 weeks
- 19) In which type of production system is the welfare of layer hens maximised?
- a) Conventional cage system
 - b) Aviary
 - c) Enriched cage system
 - d) Not sure
- 20) In which part of the oviduct of a hen is most of the egg shell laid?
- a) Vagina
 - b) Isthmus
 - c) Uterus
 - d) Cloaca
- 21) Chicken grower diet has higher crude protein content than a starter diet
- a) True
 - b) False
- 22) How many days average does it take to incubate and hatch eggs of guinea fowls
- a) 21 days
 - b) 23 days
 - c) 28 days
 - d) 30 days
- 23) Generally, the air space inside a freshly laid egg is larger than that of egg stored for several days
- a) True
 - b) False
- 24) Hens which have not been mated to cocks will not lay eggs
- a) True
 - b) False
- 25) The hatchability of eggs incubated by a broody hen is higher than that of a large commercial incubator
- a) True
 - b) False

- 26) A farmer sets her eggs in an incubator on the 10th of April. She wants to check if there are any developing embryos in the eggs. On what date should she do her candling?
- 12-13 April
 - 17-18 April
 - 24-25 April
 - 1-2 May
- 27) Which of the following is not a specialized beef cattle breed?
- Holstein Friesian
 - Sahiwal
 - Droughtmaster
 - Brahman
- 28) Why is the future of the cattle industry in PNG considered to be good?
- Availability of grazing land
 - High demand for beef in the country
 - Possibility of making local feeds from cassava and palm kernel expeller meal
 - All of the above
- 29) A beef cattle farm which buys purebred cattle (males and females) and crossbreed them to produce calves which are sold to other sectors is called what?
- Stocker farm
 - Cow-calf farm
 - Seedstock farm
 - Beef packer farm
- 30) What is the name given to cattle which have been castrated (choose all correct options)?
- Bull
 - Steer
 - Calf
 - Free martin
- 31) Which of the following procedures is not considered to be a permanent method of identifying calves?
- Fire branding
 - Ear notching
 - Freeze branding
 - Ear tagging
- 32) What level of hotness is required for hot iron branding (select all correct options)
- Blue hot
 - Black hot
 - Red hot
 - Yellowish hot
- 33) Which of the following is not true of branding? (select all correct options)
- It destroys the hair follicles
 - It may cause damage to the hide and reduce its price
 - It assists in establishing ownership if the brand is registered
 - It may be carried out on cattle which are less than 1 month old

- 34) What is the best age at which dehorning can be done? (Select all correct options)
- a) As soon as the horn buds are visible
 - b) Before the horn buds get attached to the skull
 - c) When the horns are fully grown after 1 yr of age
 - d) Before 6 months of age
- 35) Which of the following instruments is best for dehorning calves which are 2-6 months old?
- a) Sharp dehorning knife
 - b) Cup dehorner
 - c) Horn saw
 - d) Scoop dehorner
- 36) What is the correct order of passage of feed through the stomach compartments of a cow?
- a) Rumen-reticulum-omasum-abomasum
 - b) Rumen-reticulum-abomasum-omasum
 - c) Reticulum-rumen-abomasum-omasum
 - d) Reticulum-abomasum-rumen-omasum
- 37) To which classification order do family belong?
- a) Artiodactyla
 - b) Mammalia
 - c) Caprus
 - d) Bovidae
- 38) Which type of fence is best for goat farms?
- a) Plain wire fences
 - b) hinge-joint-ringlock
 - c) Wooden fences
 - d) Permanent fences
- 39) Which of the following is true of goats? (select all correct options)
- a) They are both browsers and grazers
 - b) Goats can kick or bite the stockman
 - c) Goats suited to steep hill country
 - d) Goats are browsers only
- 40) Which of the following is/are not a specialized dairy breed of goat? (select all correct options)
- a) British Alpine goat
 - b) Boer goat
 - c) Casmere goat
 - d) Toggenburg goat

Section B. Answer any 4 questions from this section (Questions 41-46). 8 marks each

Question 41

List and briefly explain any 5 resources which you will need to establish and run an animal farm

Question 42

List any 4 recommendations you would give to a farmer to improve the body condition score of his/her beef cattle herd.

Question 43

Draw a diagram to show the main components of the beef cattle production cycle in PNG

Question 44

What can you do to ensure your own occupational health and safety when branding beef cattle?

Question 45

With reference to brooding of day old chickens:

- a) What preparations do you need to make before the day old chickens arrive on your farm for brooding?
- b) List the equipment you will need for brooding
- c) What precautions do you have to take to ensure successful brooding

Question 46

- a) List any 4 external parasites of goats
- b) What are the effects of external parasites on goats?
- c) What measures would you take to ensure safety when using pesticides to control external parasites on a goat farm?

END
