

SUNRISE EVALUATION EXAMS AGRICULTURE PP2 MARKING SCHEME 2021

SECTION A

1. **Apiculture** - keeping of bees.
2.
 - BROWN EAR TICK - East Coast Fever, Corridor disease, Nairobi sheep disease.
 - TSETSEFLY - Trypanosomiasis/ Nagana
3. *Intermediate host for liverfluke Fasciola spp.*
Fresh water snail/Lymneasp
4. *Breeds of rabbits*
 - ☐ Chinchilla
 - ☐ Carlifonia white
 - ☐ Newzealand white
 - ☐ Earlop
 - ☐ Martensable
 - ☐ Flemish Giant
5. *Functions of a crop in a digestive system of chicken.*
 - o Mixes and softens food with water
 - o Temporary storage of water
6. *Ways of restraining cattle.*
 - o Use of rope/halters/casting
 - o Use of lead stick and bull ring
 - o Use of crush
 - o Use of head yoke
 - o Use of isolation yard/ pen
 - o Casting.
7. *Livestock diseases caused by virus.*
 - o Gumboro/infectious Bursa disease
 - o Fowl pox
 - o New castle disease
 - o African Swine fever
 - o Foot and mouth disease
 - o Rinderpest/cattle plague
 - o Lumpy skin disease
 - o Bird flu
 - o Mareki disease
 - o Mad cow disease
8. *Types of selection practiced by livestock farmers.*
 - ✓ Mass selection
 - ✓ Progeny testing
 - ✓ Contemporary comparison.
9. *Ways of preventing predation in a fish pond.*
 - ✓ Fencing with mesh wire

- ✓ Placing sieve at inlet

10. *Functions of feed additives in livestock production.*

- o Prevent diseases
- o Promote growth of milk secretion
- o Increase efficiency of feeds

11. *Types of calf pens*

- o Movable
- o Permanent

12. *Advantages of embryo transplant.*

- o Stimulate milk production.
- o Highly productive female can spread over and benefit many farmers
- o Easier to transport than whole animals
- o Embryos can be stored for a long period.
- o Possible to implant embryo from high quality female.

13. *Roles of testis in male reproductive system.*

- o Production of spermatozoa
- o Secretion of male sex hormone

14. MOTHERING ABILITY- ability of the dam/mother to take care of offspring until weaning.

PROLIFICACY-ability of female to give birth to many offsprings at the same time

15. *Ways in which feeding contributes to disease control.*

- o Prevents deficiency diseases
- o Improves animal's ability to resist diseases.
- o Contains herbal medicine against diseases

16. *Functional differences between rumen and abomasum*

Rumen

Temporary storage

Biological digestion

Abomasum

True stomach

Secrets digestive enzymes

17. Four practices carried out in the crush

$\frac{1}{2} \times 4$ (2 mks)

- o Dehorning
- o Hoof trimming
- o Vaccination / injection
- o A.I.
- o Pregnancy diagnosis
- o Spraying
- o Castration
- o Identification

18. Three dual purpose cattle breeds

$\frac{1}{2} \times 3 = 1\frac{1}{2}$ mks

- o Sahiwal
- o Red poll

- o Simmental

19. Three terms used to describe the following: -

- (i) Mature male pig : boar
- (ii) Sterilised birds : Capon
- (iii) Mature female goat : Doe / nanny

$\frac{1}{2} \times 3 = 1\frac{1}{2}$ mks

20. Four reasons for identifying farm animals

$\frac{1}{4} \times 4 = 2$ mks

- o Facilitate selection and breeding
- o Facilitate feeding
- o Facilitate record keeping
- o Facilitate culling
- o Facilitate disease control and treatment.

21. Four factors that determine the quality of honey

$\frac{1}{2} \times 4 = 2$ mks

- o Type of plant from which nectar was obtained
- o Maturity stage of honey at harvesting time
- o Method of harvesting
- o Method of processing

22. Four categories of livestock diseases

$\frac{1}{2} \times 4 = 2$ mks

- o Bacterial
- o Viral
- o Protozoan
- o Nutritional

23. Three tools used for plumbing

$\frac{1}{2} \times 3 = 1\frac{1}{2}$ mks

- o Pipe wrench
- o Pipe cutter
- o Stock and die
- o Hacksaw
- o Adjustable spanner
- o Screw drivers
- o Sash clamp
- o Tape measure
- o Combination square

24. Four maintenance practices carried out on an ox-drawn plough

$\frac{1}{4} \times 4 = 2$ mks

- o Lubricate land wheel bearing / moving parts
- o Replace worn out share
- o Sharpen blunt share
- o Tight loose bolts and nuts
- o Clean after use
- o Proper storage / in a shed
- o Before long storage paint / coat with old engine oil / any other anti-rust substance to prevent rusting.

25. Four sources of farm power which are environmental friendly

$\frac{1}{4} \times 4 = 2$ mks

- o Solar power
- o Wind power
- o Water power
- o Human power

- o Animal power
- o Electricity
- o Biogas

26. Four functions of the lubricating system in a tractor $\frac{1}{4} \times 4 = 2$ mks
- o Reduce friction / increase efficiency
 - o Prevent rusting
 - o Prevents tear and wear
 - o Cleaning agent
 - o Reduce heat
27. State two conditions under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer $\frac{1}{2} \times 2 = 2$ mks
- o In case of inadequate capital
 - o Small load to carry
 - o Too steep an area to use a tractor.
28. State four qualities considered when selecting a heifer for dairy purposes $\frac{1}{2} \times 4 = 2$ mks
- o Body conformation / Triangular shaped / wedge shape
 - o From high milk yielding family
 - o Well adapted to the environment
 - o Free from physical defects
 - o Healthy / free from disease
 - o Docile / easy to handle
29. Give one role of a damp proof course in the foundation of a farm building $1 \times 1 = 1$ mk
- o Prevents moisture from rising up the wall
 - o Prevents termites from climbing up the wall.

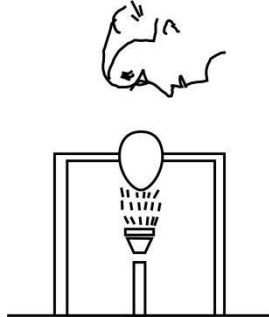
SECTION B

- 30.
- a) 1: Eggs hatch and larvae emerge
 4: Nymphs climb onto a 2nd host and feed
 5: Engorged nymphs drop down to lay eggs
 7: Engorged female drops to lay eggs $4 \times \frac{1}{2} = 2$ mks
- b) Tick keeps on dropping off the animals at every stage of development , so it is not affected by acaricides when the animal is sprayed / dipped $1 \times \frac{1}{2} = 1$ mk
- c) **Most common sites where ticks are found**
- Ears
 - Base of the horns
 - Around the eyes
 - Tail switch
- d) **Examples a three host**
- o Brown ear tick
 - o Boot tick
 - o East African boot tick

31.

- (i) Wool shearing (½ mk)
- (ii) Shearing should be done on clean floor free of grease
Care should be taken not to cut skin, testicles, udder, vulva and penis
(2 x 1 = 2mks)
- (iii) Once in a year (½mk)

32. Below in an activity carried out in poultry production. Study it carefully then answer the questions that follow.

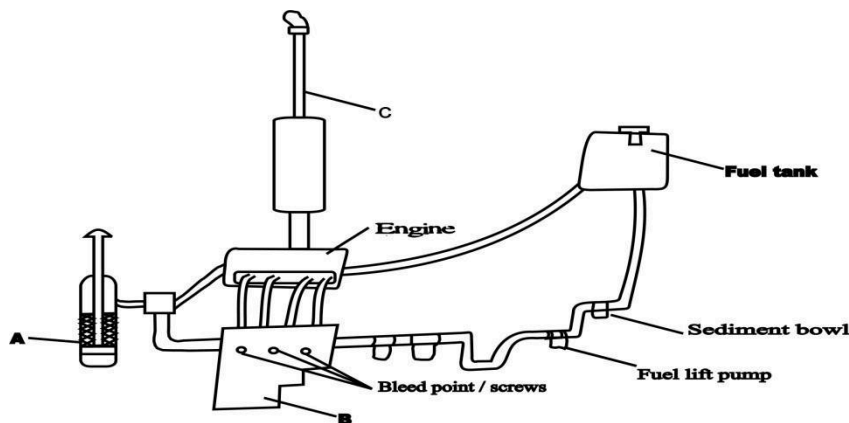


- (a) Identify the practice being carried out : egg candling (1 mk)
- (b) Three defects that can be detected by this practice (1 x 3 = 3 mks)
 - o Size of air space
 - o Fertility
 - o Very porous shell
 - o Blood spot
 - o Meat spot
 - o Double yolk
 - o Broken shell
 - o Hair cracks
- (c) Two disadvantages of artificial incubation. (1 x 2 = 2 mks)
 - o High initial capital / expensive to buy incubator
 - o Labour demanding
 - o Requires high skills
 - o High risk of damaging all eggs.

33. Use the above diagram of a calf pen to answer the questions that follow.

- a) How high should the calf pen be raised from the ground: **50cm** (1mk)
- b) **Give any two reasons why calves are housed singly** 1 x 2 = 2mks
 - o Avoid calves licking each other / formation of hair balls.
 - o Avoid spread of diseases / parasites
- c) Why should the calf pen be near the milking parlour? 1 x 2 = 2mks
 - o Avoid contamination of milk
 - o Calf takes milk at mother's body temperature
 - o Minimize problem of scouring

34. Study the diagram below of a diesel fuel system then answer the questions that follow



- a) Identify the parts labelled (3 mks)
 A - Air cleaner (1 mk) B - Injector pump (1 mk) C - Exhaust pipe (1 mk)
- b) Three maintenance practices carried out on the system 1 x 3 = (3 mks)
- o Replace / clean oil filters as recommended
 - o Remove and clean sediment bowl regularly
 - o Replace worn out injectors
 - o Bleeding should be done in case air is entrapped in the system.
 - o Replace dirt from air cleaner / clean air cleaner element by blowing with air (dry type)

35.

SECTION C

36. Five signs of heat in a cow (1 x 5 = (5 mks))
- ✓ Restlessness
 - ✓ Mounting on others / stands still when mounted
 - ✓ Slight increase in body temperature
 - ✓ Drop in milk production in lactating cows
 - ✓ Reddish and swollen vulva
 - ✓ Clear / slimy mucus from vulva
 - ✓ Bellowing / mooing frequently
 - ✓ Frequent urination
- b) Five causes of stress in poultry and describe their control (10mks)
- o Sudden change in routine practices
 - o Sudden change of feed
 - o Presence of predators / strangers in the house
 - o Attack by external parasites and diseases
 - o Sudden loud noise
 - o Abrupt change in weather
 - o Poor handling of birds during routine practices
 - o Inadequate feed and water
 - o Overcrowding

Control

- o Change of routine practices should be gradual
- o Change in feed should be done gradually.
- o Seal the house against predators.
- o Control parasite and disease attack promptly.

- o Locate the poultry house in an appropriate place free from noise.
 - o Insulate the house against weather elements.
 - o Handle the birds properly
 - o Provide adequate feed and water to birds.
 - o Ensure proper floor space
- [Five causes and their control 1 x 10 = 10 marks]

- c) Using Pearson's square compute a ration with 20% DCP from oats which contains 10% DCP and Simsim seedcake containing 60% DCP. ½ x 10 = (5mks)

$$\begin{array}{rcl} \text{Oats} & - & \frac{40}{50} \times 100 = 80 \text{ kgs of oats} \\ \text{Simsim} & - & \frac{10}{50} \times 100 = 20 \text{ kgs of simsim} \end{array}$$

37. a) Daily maintenance practices that should be carried out on a farm tractor 1 x 8 = 8 mks

- o Check oil level / level of oil in the sump using dip stick
- o Check level of fuel in the tank
- o Check level of electrolyte in the battery and adjust accordingly.
- o Check level of water in the radiator and top up.
- o Grease moving parts
- o Check fan belt tension and adjust accordingly.
- o Check tyre pressure and adjust accordingly
- o Tighten loose bolts and nuts
- o Open and remove dirt from sediment bowls

- b) Outline twelve general symptoms of endoparasite attack in livestock. 1 x 12 = 12 mks

- o Emaciation
- o Decline in production
- o Staring / rough coat
- o Oedematous swelling under the jaw.
- o Diarrhoea
- o Pot-belly
- o Persistent cough
- o Anorexia / loss of appetite
- o Eggs / parasite in faeces
- o Depressed appetite / abnormal appetite
- o Blockage / obstruction of internal organs
- o Anaemia

38. a) State four advantages of using a sub soiler in seedbed preparation (4mks)

- ☐ Used in breaking hard pan
- ☐ Facilitate aeration
- ☐ Facilitate water infiltration
- ☐ Help in pulling deep rooted weeds
- ☐ They loosen up the the soil through the vibration they make

b) Give five advantages of artificial insemination in cattle management (5mks)

- Controls breeding diseases / parasites
- Controls breeding
- Its quicker method of obtaining a proven bull
- It is easy and cheap to transport semen to far areas
- Semen from a superior bull can be used to serve many cows
- Farmers who cannot afford to buy a superior bull can access the service at a low cost
- Bulls that cannot serve naturally due to physically injuries/ defects can be utilized
- Prevents injuries to cows by heavy bulls

(c) State five function of water in animal's body (5mks)

- ☐ Acts as solvent for chemical Substances
- ☐ Its a medium of transport of nutrients in the animals body
- ☐ Help in excretion of waste product from animals body
- ☐ Regulates temperature through sweating and evaporation
- ☐ Maintaining solute -solvent balance in body fluids (osmoregulation)
- ☐ Make cells turgid ;maintaining the shape of the body cells
- ☐ Used in bio chemical reactions in the body e.g digestion of food
- ☐ It's a component of body fluids
- ☐ Describe control measures for tape worm in livestock (6mks)
- ☐ Use of prophylactic drugs
- ☐ Keep animal houses clean and disinfected
- ☐ Practice rotational grazing and rest pastures to starve larvae to death
- ☐ Keep feeding and watering equipment clean
- ☐ Use of latrine by farm workers/ proper disposal of human exceta
- ☐ Proper meat inspection
- ☐ Proper cooking of meat