

FORM FOUR CLUSTER KCSE MODEL1

AGRICULTURE PAPER 2 ANSWER

SECTION A (30 Marks)

Answer all questions in this section 1. Name two goats reared for milk production.

1.
 - Toggen burg
 - Saanen
 - Jamnapuri
 - Nubian (2 x ½ = 1mark)
2.
 - Chisel plough
 - Subsoiler (2x ½ =1 mark)
3.
 - Location of the homestead
 - Security
 - Direction of prevailing wind.
 - Relationship between the structures.
 - Taste and preference of the farmer.
 - Proximity to social amenities. 4 x ½ 2 marks
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 - Security
 - Direction of prevailing wind.
 - Relationship between the structures.
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 - Proximity to social amenities. 4 x ½ 2 marks
5.
 - Increase efficiency of machines
 - Reduce heat created by rubbing surfaces.
 - Acts as a cleaning agent.
 - Oil used to prevent rusting of stationary machines. 4 x ½ = 2marks
6.
 - Isolation
 - Quarantine.
 - Prophylaxis
 - Slaughtering
 - Proper feeding.
 - Control vectors
 - Vaccination

- Use antiseptic and disinfectants. (4 x ½ =2 marks)
7. . - Use/function of the building.
- Type of building.
 - Depth and stability of the soil.
 - Drainage of the area. 4 x ½ = 2 marks
8. - Large space is required.
- Eggs can get lost in the runs.
 - Difficult to have close supervision on individual birds.
 - Birds can be stolen or eaten by predators.
 - Breeding programme is not easily managed. (4 x ½ =2 marks)
9. - Increase durability.
- Reduce replacement cost.
 - Increase efficiency.
 - Avoid injury to the user.
 - Avoid damage to the tool. (4 x ½ = 2 marks)
10. . (a) Anthrax (½ mark)
- (b) Bacteria/bacillus anthracis (½ mark)
- (c) Blanthrax (1 mark)
11. . - Cost of the feedstuffs
- . - Nutritional composition.
 - Availability of the feedstuffs.
 - Physical nature of the feedstuff
 - The age of the animal
 - The species of the animal (4 x ½ = 2 marks)
12. . Flushing: Giving sheep extra feed of good quality before and immediately after mating.
- Steaming up: Giving pregnant ewe extra feeds of good quality 3 -4 weeks to lambing. (Mark as a whole) (2 x 1= 2 marks)
13. - Ensure efficient herbage utilization.
- Faster accumulation of manure.
 - Facilitates formation of biogas.
 - Leads to high milk production.

- High stocking rate per unit area. ($4 \times \frac{1}{2} = 2$ marks)
- 14. - Provides different forward speeds.
 - Allows the driver to select any forward or reverse gear.
 - Allows change in the speed ratio by altering the gears conveniently.
 - Allows the driver to stop the tractor without suddenly stopping the engine. ($3 \times \frac{1}{2} = 1 \frac{1}{2}$ marks)
- 15. . - Fire resistant
 - Durable
 - Resistant to weather elements. ($3 \times \frac{1}{2} = 1 \frac{1}{2}$ marks)
- 16. . - Source of water.
 - Soil type
 - Topography
 - Nature of the land ($4 \times \frac{1}{2} = 2$ marks)
- 17. - To fertilize the queen.
 - To control the temperature ($2 \times \frac{1}{2} = 1$ mark)

SECTION B (20 Marks)

Answer all questions in this section

18. . (i) B Exhaust port C Inlet port ($2 \times 1 = 2$ marks)
 (ii) -Not expensive to buy and maintain.
- Economical in fuel consumption.
 - Used in a wider range of farmland including hilly areas.
 - Can do small tasks within the farm which would otherwise be uneconomical to do using four stroke cycle engine. ($3 \times \frac{1}{2} = 3$ marks)
19. . (i) -Vegetative propagation unit. ($1 \times 1 = 1$ mark)
- (ii) -Source of water.
- Soil type
 - Sunshine
 - Security
 - Location in relation to the field where crop are finally established. ($4 \times 1 = 4$ marks)
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- (ii) -Source of water.
- Soil type
 - Sunshine

-Security

-Location in relation to the field where crop are finally established. (4 x 1= 4 marks)

21. . (i) D - Stock and die (½ mark)

E - Sprinkler (½ mark)

F -Hypodermic needle and syringe (½ mark)

(ii) D -Cutting threads on metallic pipes. (½ mark)

E -Overhead irrigation. (½ mark)

F -Injecting medicine or vaccines into animals or extracting blood samples for laboratory analysis. (½ mark)

(iii) -Unblock nozzles

-Clean after use

-Proper storage

-Repair work-out/broken parts (2 x 1=2 marks)

SECTION C (40 Marks)

Answer only two questions in this section.

22. . a)

Diesel engine	Petrol engine
-Use diesel as fuel	Use petrol as fuel
-Fuel ignited by compression	-Fuel ignited by an electric spark.
-Has no carburetor	-Has carburetor
-Operates at higher compression ratio (16:1) hence more powerful	-Operates at lower compression ratio (8:1)
-Has injectors that atomize diesel	-Has no injectors
-Uses less fuel per unit distance.	-Uses more fuel per unit distance.
-Provide a lot of smoke	-Provide less smoke
-Air and fuel first mixed in the cylinder	Air and fuel are first mixed in carburetor before igniting.

(5 x 1=5marks)

- b) -Wire mesh above the door to enhance proper ventilation.
- Rat guard to control rats from accessing into the store.
- A large door for ease in loading and offloading.
- Iron roof to ensure no water leakage.

-Strong timber on the raised floor to absorb the weight of the farm produce.

-Stairs for easy entrance and exit.

-Smooth inner surface to prevent weevils from hiding. (5 x 1= 5 marks)

c) -Adult tapeworm releases mature proglottides.

-Proglottidee passed out in human faeces.

-Segment releases the eggs.

-Eggs are eaten by grazing pigs i.e. intermediate host.

-Eggs hatch into embryo in the intermediate host.

-Young embryos penetrate the intestinal wall into the blood stream.

-Embryos are distributed in the muscles.

Diesel engine Petrol engine

-Use diesel as fuel Use petrol as fuel

-Fuel ignited by compression

-Fuel ignited by an electric spark.

-Has no carburetor

-Has carburetor

-Operates at higher compression ratio (16:1) hence more powerful

-Operates at lower compression ratio (8:1)

-Has injectors that atomize diesel

-Has no injectors -Uses less fuel per unit distance.

-Uses more fuel per unit distance

-Provide a lot of smoke

-Provide less smoke

-Air and fuel first mixed in the cylinder Air and fuel are first mixed in carburetor before igniting.

-Embryos form cysts in the muscles.

-If man eats undercooked pork infected with the cyst, cyst wall dissolves and young worms are freed.

-Young worm develop into adult and cycle repeats. (10 x 1= 10 marks)

23. . a)i) -Coccidia/protozoa
ii) - Diarrhoea
-Dysentery/bloody dung

- Emaciation
- Ruffled feathers
- Dullness and drooping wings
- Sudden death (5 x 1= 5 marks)
- iii) -Use coccidiostats drugs
- Isolate sick animals
- Treat sick animals
- Hygiene
- Avoid overcrowding
- Avoid mixing animals from different herds. (4 x 1= 4 marks)
- b) -Maintain livestock health by keeping away strange animals.
- Control parasites and diseases.
- Isolate sick animals in the farm.
- Control breeding.
- Control/restrict animal movement
- . -Facilitate rotational grazing. (5 x 1= 5 marks)
- c) -Assemble equipments -Dress appropriately.
- Light the smoker.
- Approach hive quietly from the back.
- Smoke 2-3 puffs around the hive.
- Open lid using hive tool.
- Inspect honey combs.
- Cut honey combs leaving 3cms strip.
- Put honey combs in containers free from iron and copper elements.
- Return the top bars.
- Replace the lid. (5 x 1= 5 marks)

24. -Drench against internal parasites.

- Spray or dip to control external parasites.
- Vaccinate against prevalent diseases.
- Graze lambs on good pasture/rotational grazing.

- Give supplementary feeds and minerals.
- Trim overgrown hooves.
- Flush two weeks before tupping.
- Cull poor ones.
- Crutch -Provide clean water adlib
- Treat sick ones.
- Shear wool before tupping.

b)

Disc	Mouldboard plough
-Suitable in fields without obstacles.	-Not suitable in fields with obstacles.
-Turns furrow slices partially	-Turns furrow slices completely
-Rides over obstacles hence cannot break	-It is rigid can break easily.
-More subsequent operations required.	-Fewer subsequent operations required.
-Ploughs at varying depths.	-Ploughs at a constant depth.
-Required slightly less repairs and maintenance practices.	-Requires frequent repairs and maintenance practices.
-Can be used in dry and hard soils	-Suitable for wet areas.

(5 x 1= 5 marks)

- c) -Sudden changes in routine.
- Presence of strangers in the unit.
 - Vermin
 - Too much handling of birds.
 - Poor hygiene.
 - Diseases -Climatic change -Overcrowding -Lack of food and water. -Introducing new birds in the flock. (5 x 1= 5m)