KAPSABET HIGH SCHOOL

AGRI PP2 F4

MARKING SCHEME

1. –Even distribution of fat in the body
   -Facilitate easy mating/tupping
   -Reduces incidences of blowfly
   -Minimizes fouling of wool with dung. $2*^{1}/_{2}$=1mark

2. a) –Bacteria $1*^{1}/_{2}=^{1}/_{2}$mark

   b) It is due to high butterfat content in jersey milk hence yellowish in colour. $1*^{1}/_{2}$=1mark

   c) - To maintain warmth
   - Absorb moisture $2*^{1}/_{2}$=1mark

3. –Durable
   -Resistant to weather
   -Resistant to rotting
   -Resistant to fire
   -Resistant to insect damage

4. –Use of swarm net
   -Use of a catcher box
   -Placing a hive in a permanent place. $3*^{1}/_{2}=1^{1}/_{2}$marks

5. –By injection
   -Orally through the mouth
   -Inhalation through the nose
   -Through cloaca in poultry
   -Through eye drops

   $4*^{1}/_{2}$=2marks

6. –Species of the animal
   -Age of the animal
   -Sex of the animal
   -Colour of the animal
   -Breed of the animal
   -Housing of the livestock
   -Nutrition
   -Weather condition
   -Hereditary
   -poor hygiene $4*^{1}/_{2}$=2marks

7. –Vital for growth and repair of worn out tissues
   -Component of livestock products
   -Synthesis of antibodies
   -Synthesis of hormones and enzymes
   -Production of energy during starvation $4*{}^{1}/_{2}=2$marks

8. a) Trochar

   b) Bits $2*{}^{1}/_{2}=1$mark

9. Flushing: Practice of giving extra high quality feeds to an animal around service time.
   Steaming up: Practice of giving extra high quality feeds to an animal during los period of pregnancy 1*2=2marks

10. -Mate the queen for it to lay fertile eggs
    -Keep hive cool by flapping their wings. $2*{}^{1}/_{2}=1$mark

11. –Breakdown of carbohydrates and cellulose to carbon dioxide and volatile fatty acids
    -Synthesis of vitamin B complex
    -Fermentation of food
    -Synthesis of amino acids from ammonia gas
    -Breakdown of proteins to peptides, amino acids and ammonia $2*{}^{1}/_{2}=1$mark

12. –Ants
    -wax moth
    -Honey badgers
    -Bee louse $3*{}^{1}/_{2}=1{}^{1}/_{2}$marks

13. –Piglet anaemia
    -Swayback in lambs
    -Goitre in calves
    -Osteomalacia
    -Milk fever
    -Curled toe paralysis $4*{}^{1}/_{2}=2$marks

14. Raddling: Practice of fitting the rams with breeding chutes with different colours to identify mated ewes and by which rams 1*1=1mark

15. Fresh water snail

16. –Broken frames should be repaired or replaced
    -Torn polythene materials should be replaced
    -Dirty polythene sheets should be cleaned $3*^{1}/_{2}=1^{1}/_{2}$marks

17. –Sudden stopping
    -Continuous engine running $2*^{1}/_{2}$=1mark

18. –Well ventilated
    -well spaced
    -Leak proof
    -Easy to clean
    -Well lit
    -Proper drainage
    -Free from drought $4*^{1}/_{2}$=2marks

19. –Cow become restless
    -Cow mounts on others and allow itself to be mated
    -Rise in body temperature
    -Valva swells and become reddish
    -Bellowing or mooing frequently
    -Clear slimy mucus discharge from valve
    -Drop in milk production in lactating cows
    -Frequent urination $6*^{1}/_{2}$=3marks

SECTION B (20 MARKS)

20(a) –Dead fence/woven wire fence/chain link wire

Y-live fence 2*1=2mark

(b) Pruning shears 1*1=1mark

(c) -Roots firms the soil particles controlling soil erosion.
-Some plant provide shade to livestock
-Tall varieties act as wind breaks

-When trimmed the material can be used as mulch
-Thorny species like kei apple keep away intruders 3*1=3marks

21. (i) Disc plough 1*1=1mark

(ii) E- Rear thrust wheel. Furrow wheel
Function: Controls the depth of ploughing and balancing the whole implement
F-Concave disc
Function: - Cut and invert the furrow slices $4*^{1}/_{2}$=2marks

(iii) –All moving parts should be lubricated
-Replace worn out discs and repair broken discs
-Tighten loose nuts and bolts
-For long storage apply old engine oil to prevent rusting
-Should be cleaned after the day's work
-Disc sharpened when blunt 4*1=4marks

22. (i) A-Kenya, Top Bar Hive
B-Box hive 2*1=2marks

(ii) - All broken parts should be repaired or replaced
-All the cracks should be sealed
-The grease on the post should be replaced if melted 2*1=2marks

(iii) –Drone
-Queen
-Worker bee 1*1=1mark

23. (a)

Diesel Tractor Engine	**Petrol Tractor Engine**
(a) Uses diesel as fuel	It uses petrol as fuel
(b) Fuel and air mixed within cylinder	It has a carburetor for mixing petrol and air
(c) Produces a lot of smoke since diesel is not completely burnt	Produces little smoke because petrol is completely burnt
(d) Relatively heavy in weight and suited to heavy duties	Light in weight and suited to light duties
(e) Fuel ignited by compression of air and fuel mixture in the cylinder	Fuel ignited by electric spark
(f) It has an injection pump	It has a carburetor

(g) Produces more power	It produces less power
(h) Has higher compression ratio (16:1)	Air has low compression ratio (8:1)
(i) It uses less fuel per unit area when working	Uses more fuel per unit area when working

Any 8*1=8marks

(b) Principle of operation of a four- stroke petrol engine

(i) -Induction

-Starts when piston is up

-The piston moves downwards in the cylinder

-Inlet valve opens

-Fresh petrol vapour and air mixtures get into the cylinder.

(ii) Compression stroke

-Starts when piston is down

-Inlet valve is closed

-The piston moves up the cylinder

- Fresh fuel mixture is compressed

(iii)Power stroke

- Fresh air fuel mixture is fully compressed
- A spark is produced at then spark plug
- Air fuel mixture ignites and expand
- Pressure created forces the piston down the cylinder

(iv) Exhaust stroke

- Starts when the piston is down
- Piston moves up the cylinder
- Exhaust valve opens
- Gases from the burnt air fuel mixture are expelled through exhaust valve. (12marks)

24. (a) (i) Causal organism: virus 1*1=1mark

(ii) Contaminated feet, forage and manure

(iii) – Sharp rise in the temperature/high fever
-Blisters in the mouth, hooves and teats which are painful
-Loss of appetite
-Inability to move when feet are affected/lameness
-Profuse salvation
- Drop in milk production in lactating cows
-Emaciation 4*1=4marks

(iv) –Vaccination
-Quarantine is imposed in case of outbreak
-Slaughter affected animals
-Disinfecting animal hooves 4*1=4marks

(b) – They grow faster attaining maturity early
-Good health gives animals longer economic and productive life.
-Healthy animals give maximum production or performance.
-They produce good quality products hence high market value.
-They will not spread diseases to others and human being.
-They are economical to keep and spend less money on disease treatment. 5*1=5marks

(c) –Proper feeding
- Proper housing and hygiene
-Proper selection and breeding
-Routine vaccination
-Isolation of sick animals
-Quarantine
-Mass slaughter of sick animals
-use of prophylactic drugs
-Treat sick animals using appropriate drugs
-Control of vectors
-Use antiseptics and disinfectants 5*1=5marks

25. (a) –Site selection-select a suitable place where water flows gently from the source
-Site making-After planning the area, pegs are used to mark the channel from the river, the entrance and exit and also the channel to take water back to the river
-Clearing the land-All vegetation is removed and taken away from the pond area
-Digging the pond- Soils dung out. Top soil is placed in a particular place as it will be used again. Upper side of pond should be 0.5M deep and lower one 1.5 deep
-Constructing dyke- It is a wall constructed all around the pond.

Starting 5marks (10marks)
Explaining 5 marks

(b) Eggs hatch on the ground and larvae enierges the emerging larvae will attach themselves to the first host; feed on blood, become engorged, drop off to the ground and mount into nymphs. These nymphs will climb on second host, feed on blood, become engorge and drop off to the ground and mounts into adults. The adults climb, onto the third host, feed, become engorged and mate before females drop off to the ground to lay eggs. (5marks)

(c) - Chemical composition of feed
-The form in which the feed is offered to the animal
-The species of the animal
-Ratio of energy to protein
-Quantity of feed already present in the digestive system of an animal (5marks)