

**FORM FOUR
AGRICULTURE PAPER 2
MARKING SCHEME**

1. Categories of produce store
 - Traditional granaries
 - Modern stores
 - Silos
 - Cyprus bins

(4 x ½) = 2mks

2. Reasons for tooth clipping
 - To prevent injury incase piglets fight
 - To avoid injury to mothers teats during suckling
 - To facilitate proper feeding of the piglets

(Any 2 x ½) = 1mk

3. Uses of a rake
 - Levelling the ground during land preparation
 - Removing weed/trash from cultivated area

2 x ½ = 1 mk

4. Diseases of bees
 - Acarive
 - American foul brood

2 x ½ = 1 mk

5. Heifer – A young female cattle between weaning and first calving
 Cow – A mature female cattle (Mark as a whole) 1mk

6. Species of livestock affected by tapeworms
 - Pigs
 - Goats
 - Cattle
 - Sheep
 - Donkeys

(Any 4 x ½) = 2mks

7. Viral diseases that affect poultry
 - New castle
 - Marek’s disease (fowl paralysis)
 - Gumboro
 - Avian flu
 - Fowl pox

Any 4 x ½ = 2mks

8. Disadvantages of natural incubation

- Few chicks hatched at one time
- Farmer can't plan when to incubate
- Diseases and parasites can be easily transmitted to the chicks from hen
- Hens can only be used when broody
- Death of the bird will collapse the process (Any 4 x ½) 2mks

9. Causes of bad flavours in milk production

- Feedstuffs with strong smells prior to milking e.g. onions, pineapple fruit waste, Mexican marigold. Rej: feedstuffs alone
- Oxidation from exposure to sun or containers with traces of iron or copper
2 x ½ = 2 mks

10. Causes of death in cow during or after parturition

- Malpresentation of calf (Acc breech presentation)
- Excessive bleeding after birth
- Milk fever in high yielding animals Any 2 x ½ = 1 mk

11. Roughages – It is a feedstuff with high fibre and carbohydrate content and low in protein
Concentrate – It is a feedstuff with high amount of proteins or energy (carbhydrates) but low in crude fibre Mark as a whole = 1mk

12. Zoonotic diseases

- Anthrax
- Brucellosis (contagious abortion/bang's diseases)
- Tuberculosis
- Rabbies (Any 3 x ½ = 1 ½ mks)

13. Uses of harrows

- i) Levelling seedbed
- ii) Breaking soil clods
- iii) Stirring the soil
- iv) Destroying weeds
- v) Burying trash (Any 4 x ½ = 2 mks)

14. Signs of heat in pigs

- Restlessness
- Frequent urination
- Swelling and reddening of vulva
- Clear or slimy mucus discharge from vulva
- Respond positively to rider's test
- Frequent mounting others (Any 4 x ½ mk) = 3mks

15. Plant species used to establish live fence

- Tick berry (lantana Gamara)
- Kei apple
- Crotons
- Gacti
- Sisal
- Euphobia
- Bougainvillea
- Mauritius thorn
- Cypress

Any 3 x ½ = 2 mks

16. Benefits of scattering grains in deep litter house

- Provides supplementary feed to the bird
- Birds help to turn the litter as they scratch for the grain
- Keeps bird busy when scratching thus preventing vices (Any 2 x ½) 1mk

17. Types of lubrication system

- Splash feed
- Force feed
- Oil mist

3 x ½ = 1 ½ mk

18. Sheep breeds reared for meat

- Dorper
- Black head Persian
- Red Maasai sheep

3 x ½ = 1 ½ mks

19. Tools used during castration

- Burdizzo
- Elastrator and rubber ring Rej: elastrator alone
- Scapel

3 x ½ = 1 ½ mk

20. Disorders associated with calcium deficiency in animals

- Milk fever
- Soft shelled eggs
- Egg without shells (shell-less eggs)
- Osteomalacia/osteoporosis
- Rickets

Any 4 x ½ (2mks)

SECTION B (20 MARKS)

21. (a) E 1mk
 (b) F - High pressure / excess pressure 1mk
 G - Low pressure / less pressure. 1mk
 (c) F - Deflate to correct. 1mk
 G - Inflate to correct. 1mk
22. (a) roof of a house. 1mk
 (b) A - Rafter.
 B - Tie.
 C - Strut.
 D - Wall plate.
 E - Rafter bracket. 1 × 4 = 4mks
23. (a) W - Cold chisel.
 X - Spirit level.
 Z - Masons square. 1 × 3 = 3mks
- (b) Z - Checks right angles during construction. 1mk
 X - Checks whether a surface is vertical or horizontal. 1mk
24. (i) Rabbit.
 (ii) A - Oesophagus.
 B - Pancreas. 1 × 2 = 2mks
 (iii) C - Produces intestinal juice / digestive juices / absorption of digested food.
 D - Digestion of cellulose
 - Absorbs carbohydrates. 1 × 2 = 2mks

SECTION C: (40 MARKS)

25. a

Petrol Engine	Diesel Engine
i. Uses petrol as fuel	i. Uses diesel as fuel
ii. Spark plug ignition	ii. Uses compression ignition
iii. Has a carburetor	iii. Has no carburetor
iv. Has plugs for ignition	iv. Has no plugs
v. Compression ratio is lower 8:1	v. Compression rate ratio is higher 16 :1
vi. Power from air –fuel mixture	vi. Power from diesel
vii. Lighter	vii. Heavier
viii. Petrol engines produce less noise	viii. Produce more noise
ix. Produces less smoke	ix. Produce more smoke
x. Needs more frequent maintenance	x. Needs less frequent maintenance

25. b) Daily maintenance of a tractor

- Engine oil
- Check the level with a dip stick and add if low
- Battery
- Check the level of electrolyte and distilled water to cover the plates
- Fuel
- Check and add if low
- Greasing
- Is done using the nipples on all greasing points
- Fan belt
- Tighten if loose
- Radiator
- Add water if level of water is low and remove vegetation
- Air cleanses
- Blow off any excessive dust
- Oil baths (air cleaner)
- Change oil if dirty
- Nuts, Bolts ,pins
- Tighten these if loose
- Sediment bowl
- Clean if clogged

mks

10 x 1 = 10

26

a) Disease predisposing factors

Are conditions inside or outside the body of an animal which lead to the animal which contracting a disease or injury

1x2 = 2mks

b)

- Age of the animal ; species of the animal
- Sex of the animal ; Bred of the animal
- Colour of the animal
- Change of climate / environment
- Heredity
- Environment

- Overcrowding
- Physical conditions as fatigue , weakness and pregnancy
- Animal movement / Animal coming in contact wit animals

c)

- Age
- Stage of lactation
- Udder attachment / pendulous udder
- Incomplete milking
- Medicinal injuries
- Poor sanitation
- Poor milking technique

d)

- Proper feeding and nutrition : To prevent deficiency diseases and impart diseases resistance
- Proper breeding and selection : Healthy animals should be selected for breeding
- Proper housing : House should be well ventilated , leak proof, well lit , easy to clean ,spacious, free from draught , and well drained
- Isolation / separation of sick animals
- Animals showing disease symptoms should be isolated /separated from the rest of the herd to avoid further spread
- Imposition of quarantine : in the event of an outbreak of notifiable disease , movement of animals and their products should be restricted to prevent spread of diseases
- Prophylactic measures / Treatment : Prophylactic measures such as administering prophylactic drugs , help to control diseases
- Treatment : should be carried out to prevent disease attack and spread
- Vaccination : Regular vaccination gives an animal immunity against certain diseases
- Mass slaughter : Animals affected by highly infections and contagious diseases should be slaughtered to prevent further spread of the disease
- Use of antiseptics and disinfectants : Antiseptics can be use on open wounds e.g terramycin sprays , disinfectants contain germicidal chemicals help to control of are disease as scours in calves,fowl typhoid, coccidiosis etc.
- Control of vectors: Disease carrying agents like tsetse flies and ticks are controlled by use of appropriate insecticides.
- Use of healthy breeding stock / Artificial insemination
- breeding stock : Artificial insemination help to prevent the spread of certain diseases e.g. Brucellosis
- De-worming : Internal parasites be controlled by drenching of farm animals to help control parasites as tapeworms ,round worms ,liver flukes etc
- Rearing diseases resistant breeds : some livestock breeds are more tolerant to diseases than others eg zebra cattle are tolerant to East Coast fever
- Trimming of hooves to minimize occurrence of foot rot disease ;Ensure no sharp objects like cut wire I pasture like bloat.

Any first 4 x2

8mks

27.

- Construct a brooder of suitable dimensions
- Avoid corners in the house/brooder
- Provide litter and cover it with old newspapers
- Provide enough heat sources to warm the chicks
- Protect heat sources to avoid accidents
- Provide waterers and feeders well distributed
- Ensure waterers and feeders are clean
- Cull sick chicks

- Vaccinate the chicks
- Debeak habitual cannibals
- Feed on layers mash from week 16
- Supply grit to supplement digestion
- Provide perches for exercise
- Supply vegetables adequately
- Maintain the litter dry and free from dust
- Introduce growers mash from week 6 – 8
- Check for pests / parasites and apply appropriate control measures
- Keep up to date records
- Check birds for disease symptoms and treat them immediately
- Provide enough calcium giving oyster shells
- Maintain and repair the house as need arises.

