

**AGRICULTURE PAPER 2**

**MARKING SCHEME**

**SECTION A (30MRKS)**

1. Appropriate tools for

a) removing metal chippings in the files

-wire brush (1x1) (1mrk)

b) Cutting wood along grains

-rip saw 1x1(1mrk)

c) Branding

- Branding iron 1x1=1mrk

2. Characteristic of boran cattle

- Compact, deep and wide body
- Long, wide, drooping rump
- Large hump and dewlap
- Usually white in colour hence radiates heat
- Slow growth rate and late maturity
- Resistant to high temperature
- Cows weigh 410-450kg, bulls 550-650 kg (4x1/2 =2mrks)

Used to improve zebu

3. Function of useful bacteria in livestock production

- Digestive of grass and fibre in the rumen
- Fermentation of yoghurt/milk products

2x ½ =1mrk

#### 4. Function of lipids

- Consistent of body cell/part of body cell
- carries fat soluble vitamins A,D,E, K
- Insulate body /prevent body heat loss
- Provide energy stored in reserves 4x ½ (2mrks)

#### 5. Ways of reducing friction in moving parts of farm tools

- oiling
- Greasing

2x ½ =(1mrk)

#### 6. Types of fences used n mixed farm

- Electric
- plain wire
- Barbed wires
- Wooden fence
- Woven wire fence/chain link
- Stone /brick fence/block fence

#### 7. Method of out breeding

- out crossing
- Cross breeding
- Grading up /Up grading 3x1/2=1 ½ mrk

#### 8. Reason for tailing in sheep production

- Prevent blowfly infection
- Prevent soiling of wool with urine and feces
- Facilitate even distribution of fat in the body

2x ½ =(1mrk)

9. Parts of cow s udder

- Lobule
- alveolus
- lobe
- teat cistern
- teat canal
- gland cistern
- teat sphincter muscles
- annular fold

10. Ways of transmitting livestock diseases

- open wounds
- Body contact with affected animals
- Inhalation of pathogens
- Insect vectors
- Ingestion of contaminated food and water
- Contaminated surgical instruments

5x ½ =2mrks

11. Features of improved grain bin

- Raised above ground
- Have rat guard on supporting posts
- Have impermeable wall to guard against rain water .
- Proper ventilation to control variations.
- Have proper roofing to protect grain from sunlight and rain 4x1/2=(2mrks)

12. Types of calving complications (3x1/2 =1 1/2mrks)

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- Breech presentation
- One or both forelegs bent backward
- head twisted backward to either side
- Whole reproductive tract twisted

13. Advantages of zero grazing

- high milk yield
- quick accumulation of manure
- easy control of parasite and diseases
- less wastage of feed
- Large number of animals reared in a small area/allow high stocking rate .

$$4 \times \frac{1}{2} = (2 \text{mrks})$$

14. Function of queen bee

- lay eggs
- Production of pheromone which keeps colony together

$$2 \times \frac{1}{2} = (1 \text{mrk})$$

15 Symptoms of anaplasmosis

- constipation/hard dung
- fever
- paleness of gum eye lips --Fast breathing and heart beat
- yellow urine, animal do not chew cud
- No milk flow from udder

$$4 \times \frac{1}{2} = (2 \text{mrk})$$

16 Terms

- a) Caponisation -sterilizing male bird
- b)bullock –mature castrated male cattle

c) Epistasis - a combination of inferior genes which individually could express themselves

**SECTION B**

A) Type of cooling system

- Air cooled system 1x1=1mrk

b) parts

J- Finned cylinder

K- crank case

L- metal cowling

M- fly wheel (blower)

4x ½ = (2mrk)

c) Problem associated

- uses heavy lubricating oil which are expensive

- get hot quickly

- Cooling not adequate when carrying heavy load

2x1(2mrks)

18. Method of extracting honey

a) heat method

b) Why x should not be heated directly

- To prevent destroying honey by heat 1x1=(1mrk)

c) Parts

W- Honey combs

Y- water

2x1=(2mrks)

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d) Other method of honey extraction

-Crushing and straining

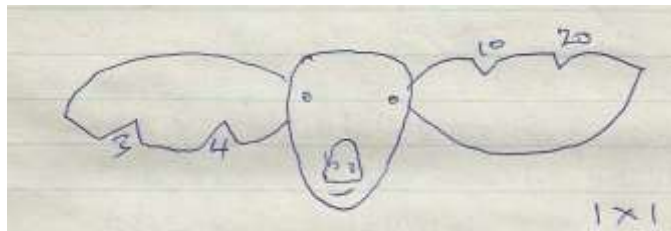
-Centrifugal method 1x1=1mrk

1x1=(1mrk)

19 a) practice illustrated

-Ear notching 1x1=1mrk

b) Illustration for number 37



c) Other method of identifying piglet

-Ear tagging

-Ear tattooing

2x1=(2mrks)

20a) activity shown

-Hand milking

1x1=(1mrk)

b) Activity carried out before the operation

-Restraining animal

-Providing food

-Washing udder of animal

-wiping udder dry

-Testing for mastitis

1x1=(1mrk)

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c) Procedure of carrying out practice

- (i) -Assemble milking equipments
- (ii)- Provide food
- (iii) -Put cow in milking shed and restrain it
- (iv)-Wash udder using warm water
- (v)-dry the udder with clean towel
- (vi)-Use strip cup to test mastitis
- (vii)-Milk animal /strip the teat dry
- (viii)-Dip teats in antimastitis solution
- (ix)-apply milking jelly /milk salve on teats
- (x)-Release cow

3x1=(3mrks)mark as whole

Stop marking where procedure is broken

SECTION C (40 MRKS)

21. a) Management practice on a fish pond to ensure maximum fish harvest

- Control stocking rate
- Control water pollution
- Supply adequate food regularly
- Provide appropriate feed
- Ensure constant in flow and out flow of water /aerate water
- Control predators
- Harvest fish at the correct maturity age .
- Maintain appropriate water level always

7x1=7mrks

b) Importance of farm mechanization

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- Farm operation are achieved on time
- Large areas can be covered within short time
- Reduce drudgery /makes work easier and enjoyable
- Increased efficiency /better job done mechanically
- High yield due to timely operation
- Pest and disease outbreak controlled in a shorter time
- Encourage farmer to consolidate land
- Farmer benefit from economic of scale
- Uses less labour

6x1=6mrks

c) Short term maintenance practice on a tractor 7x1=(7mrks)

- Check level of engine oil using a dip stick
- Check fuel tank to ensure there is enough fuel
- Check level of electrolyte in battery and adjust accordingly
- Check level of water in radiator and top if necessary .
- Grease /oil moving parts
- Check for belt tension and condition and adjust accordingly
- Check the air cleaner to ensure there is no dirt /check level of oil
- Check the tyre pressure before work and adjust accordingly
- Tighten loose nuts ,bolt and pins
- Remove dirt from sediment bowl

22a) Features of a piggery unit

- Farrowing pen; to ensure safe farrowing and safety of piglet; hence should be provided with farrowing crates and heat source;
- Gilt pen; for keeping young female up to service age



- Boars pen; for breeding boar should be spacious for exercise
- Weaners pen; to house piglet after weaning
- In pig pen; for pregnant sow awaiting farrowing
- Running yard; for sunbathing and dunging
- Feed store for storing pig feed
- Water trough; for watering pigs
- Record room; for keeping feed and weight records
- Roofing; for their protection against extreme weather conditions.
- Feed troughs; for feeding pigs.

-10x1=(10mrks)

b)Factors that influences the work of the output of a draught animal

- Age of the animal –very young and very old have lower out put compared to mature animal
- Level of training –Well trained animals are more efficient than poorly trained ones –They are able to follow simple instructions
- Method or harnessing –Well harnessed animal are more efficient than poorly harnessed animal

Body condition – A well fed draught animal is strong and healthy hence it has a higher work output compared to one that is poorly fed

-Weather condition –Adverse temperature (very high ,very low reduces the work output of draught animal .The animal work best under suitable weather condition

-Duration/ hours of work –Overworked animals tend to have a low work output ,draught animal should be given sufficient time to rest

-Condition of working implement, well maintained Implement are easy to work with and this improves the work output of the animal

Any 5x2=(10mrks)

23a)Methods of controlling tick (10x1=(10mrks)

- Use of natural enemies e.g. ants and birds

- self licking to dislodge ticks
- Burning infected pastures land to expose eggs to the sun
- Top dressing pastures with lime
- Fencing off pasture land.
- Keeping animals away from infected pasture to stave ticks .
- Rotational grazing help to break life cycle .
- Deticking from livestock and killing them .
- Spraying with acaricides or dipping in acaricides
- Hand dressing using pye-grease.

b)The management of grower up to the point of lay

- Feed the grower on adequate growers mash per bird per day .
- Supplement the grower s mash with grains and greens .
- Introduce soluble grit /oyster shells at 20<sup>th</sup> week
- Provide adequate clean water and libitum.
- Adjust floor space; allowance; as the bird age appropriately
- Give a booster vaccine against new castle disease at 20 weeks of age at the 18<sup>th</sup> week ,vaccinate against fool pox
- Drench the birds regularly against internal parasites.
- Dust the bird with the appropriate pesticides against external pests .
- Control predator such as rat /cats .
- Feeders and waterier should be cleaned and disinfected daily .
- Maintain foot bath at the entrance of the poultry house .
- Keep the litter as dry as possible /turning it regularly .
- Introduce the layer mash from the 18<sup>th</sup> week and increase gradually .

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-Provide roosts /perches for the birds to perch on from the 9<sup>th</sup> week .

-Birds start laying at 18-21 weeks of age depending on the breed .

Any 12x1=12mrks)