**CASPA AMUKURA PARISH EXAM 2021**

**AGRICULTURE FORM THREE**

**MARKING SCHEME**

**SECTION A: 20 MARKS**

1. **Characteristics of extensive farming systems**

* Large tracts of land
* Low capital investment
* Low labour per unit area
* Low yields per unit area

4× ½ = 2 marks

1. **Why burning land is discouraged**

* Soil organic matter is destroyed
* Soil microorganisms are killed
* Fire can spread to neighbouring fields
* Leads to leaching of soil nutrients

4× ½ = 2 marks

1. **Physical factors in soil formation**

* Wind
* Water
* Moving ice
* Temperature

4× ½ = 2 marks

1. **Meaning of following terms**
2. Crop rotation – is the growing of different types of crops on the same piece of land, at different times in an orderly sequence. OWTTE

1×1 = 1 mark

1. Pruning - is the removal of extra or unwanted parts of a plant. OWTTE 1×1 = 1 mark
2. Rogueing – is the uprooting and destroying plants infected by pests and diseases. OWTTE 1×1= 1 mark
3. **Factors that determine depth of planting**

* Soil type
* Soil moisture content
* Size of the seed
* Type of germination

4 × ½ = 2 marks

1. **Crop propagated by the following**

* Stem tuber - Irish potato
* Split – pyrethrum, grass
* Slip – pineapple
* Bulbil – sisal

4 × ½ = 2 marks

1. **Four light breeds of chicken**

* Leghorns
* Ancorna
* Minorca
* Sykes

4 × ½ = 2 marks

1. **Harmful effects of ticks on livestock**

* They suck blood leading to anaemia
* They cause wounds that lead to secondary infection
* They transmit livestock diseases
* They cause irritation to the animal
* They lower the value of hides and skins

**4 × ½ = marks**

1. **Cropping** - removal of fish of marketable size from the pond

**Harvesting** – removal of all fish from the pond

Mark as a whole 2 ×1= 2 marks

1. **Maintenance practices on a fish pond**

* Remove undesirable vegetation
* Remove silt
* Plant grass where necessary
* Clean the pond and remove all foreign materials
* Repair the dyke and any structure

4 × ½ = 2 marks

1. **Functions of vitamins in animals body**

* Help in blood clotting
* Help in bone formation
* Help in muscular activity
* Promote growth
* Prevent diseases in animals

1. **Reasons why farmers invest in Agriculture**

* It earns the country foreign exchange
* It’s a source of food
* Provides employment
* Source of capital or income
* Provides market for industrial goods
* Provides raw materials for industries

1. **Seed dressing** is coating seeds with fungicide or insecticide to protect seedlings from soil borne pests and diseases while **seed inoculation** is coating legume seeds with an inoculant to help in nitrogen fixation.

(Mark as a whole) 1 mark

**Under sowing** is the establishment of a pasture under a cover crop while **over sowing** is the introduction of a pasture legume in an existing grass pasture. (Mark as a whole) 1 mark

1. **Factors considered while sitting an apiary**

* Water availability
* Availability of flowers
* Sheltered place
* Free from noise and disturbance
* Away from human and livestock

1. **Reasons for each of the following**
2. **Nitrogenous fertilisers should not be applied during planting**

* Are easily leached to lower zones
* Have a residual effect

2 × ½ = 1 mark

1. **Too much nitrogenous fertilisers should not be applied during growing of tomatoes**

It causes

* Cracking of fruits before maturity
* Blossom end rot
* Prolonged maturity
* Too much vegetative growth

2× ½ = 1 mark

**SECTION B: 20 MARKS**

1. **Type of farm record**

Feeding record

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Daily feeding record for month of **June**  Enterprise **Kocho Farm**  Type of feed **Layers mash** | | | | | |
| Date | No. of animals | Amount received (kg) | Amount used | Balance in stock | Remarks |
| **16/6/2021** | **20 layers** | **120** | **40 kg** | **80 kg** | **Layers mash well utilised** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. **Other types of farm records**

* Health records
* Marketing records
* Labour records
* Breeding records
* Field operation records
* Production records
* Inventory records

1 × 1 = 1 mark

1. **Computation of feed using Pearson square method**

Maize 8% 28 parts of maize

15

15

Soya beans 43% 7 parts of maize

Total = 35

Maize = 28 × 100 = 80 kg

35

Soya beans = 7 × 100 = 20 kg

35

1. **Parasite**

* Liver fluke 1 mark

1. **Intermediate host**

* Fresh water snail 1 mark

Final host

* Sheep
* Cattle 1 mark

1. **Control measures**

Control fresh water snail by

* Killing the snails physically
* Use of chemicals to kill snails
* Drain swampy areas
* Burn pastures in dry season

Any 2 × 1 = 2 marks

1. **Structure**

* Nursery bed

1×1= 1 mark

1. **Function of part X**

* Protect seedlings from direct sunlight
* Protect seedlings from direct raindrops
* Reduce light intensity

1×1= 1 mark

1. To harden seedlings before transplanting

1×1= 1 mark

1. **Advantages of nursery bed**

* Facilitate planting of small seeds which develop into strong seedlings.
* Reduces the period taken by the crop in the field.
* Easy to carry out management practices.
* Facilitate production of seedlings in a small area.

**SECTION C: 40 MARKS**

1. **Precautions when using workshop tools**

* Keep tools in a safe place after use
* Use correct tool for correct job
* Handle tools correctly
* Use safety devices in the workshop
* Store tools correctly in tools racks
* Maintain tools to remain in good working condition

6×1 = 6 marks

1. **Reasons for carrying out minimum tillage**

* To maintain soil structure
* To conserve soil moisture
* Prevent humus exposure
* Prevent root disturbance
* Control soil erosion
* Reduce cost of cultivation

6× 1= 6 marks

1. **Ways soil lose fertility**

* Leaching – nutrients carried to lower zones by infiltrating water leads to loss of fertility.
* Soil erosion – carrying away of top fertile soils by erosion agents loss of soil fertility.
* Mono cropping – growing one crop continuously on the same piece of land results in exhaustion of nutrients thus loss of soil fertility.
* Continuous cropping – harvested crops remove large amounts of nutrients from the soil which makes soil deficient of this nutrients.
* Burning vegetation cover- burning destroys organic matter and soil structure.
* Change in soil pH – due to use of fertilisers leads to change in soil pH thus affect activity of microorganisms.

(First 4; mention 1 mark, well explained 1 mark)

4 ×2= 8 marks.

2. **Field management practices in tomatoes**

* Gapping
* Topdressing
* Weeding
* Staking
* Pruning
* Pest control
* Disease control

7×1 = 7 marks

1. **Factors that determine water requirements in an animal’s body**

* Ambient temperature
* Type of feed eaten by animal
* Level of production
* Body size
* Species of the animal
* Amount of work

5×1= 5 marks

1. **Transplanting tree seedlings**

* Dig holes for transplanting
* Transplant at onset of rains
* Water the seedlings a day before transplanting
* Place seedlings at the centre of the hole
* Cut and remove polythene sleeve using a sharp knife
* Add soil around the tree until the hole is filled completely
* Firm the soil gently around the tree seedling
* Plant at the same depth as it was in the nursery.

8 × 1 =8 marks

2. **Reasons why bees swarm a hive**

* Shortage of food
* Outbreak of diseases and parasites
* Damage of brood combs
* Lack of adequate ventilation
* Dampness and bad smell
* Sick or infertile queen
* Overcrowding

6 × 1= 6 marks.

1. **Signs of heat in cows**

* Restlessness
* Slight rise in body temperature
* Milk yield drops
* Clear mucus from vagina
* Mooing frequently
* Mounting others and when mounted stand still.

6 × 1 = 6 marks

1. **Factor considered when selecting breeding stock**

Age – select young animals

Level of performance – select animals with high performance

Physical fitness – select animals which are free from physical defects

Health – select animals which are healthy.

Body conformation – animals with proper body conformation selected.

Behaviour/ temperament – animals with bad behaviour such as cannibalism not selected.

Quality of products – select animals with high quality products.

Mothering ability –select those with good mothering ability.

Adaptability – select those well adapted to prevailing climatic condition in the area.

Prolificacy – selected animals should have ability to give birth to many off springs.