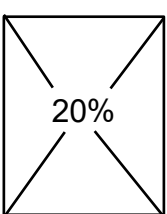


AGRICULTURE PAPER TWO MARKING SCHEME

<u>SNO.</u>	<u>SECTION A</u>	<u>MARK</u>
1.	Complimentary tools Trocar – Canula Bull ring – Lead Stick Elastrator – Rubber ring Syringe – Hypodermic needle $4 \times \frac{1}{2}$	2 marks
2.	Harmful effects of external parasites on livestock • They suck blood causing anaemia • They transmit diseases • They cause skin irritation • They cause wounds that act as route for secondary infection • They lower the quality of hides & skin $4 \times \frac{1}{2}$	2 marks
3.	Factors determining the maintenance ration of an animal • Age of the animal • Physiological condition • Body size of the animal • Level of activity • Level of production • Environmental conditions $4 \times \frac{1}{2}$	2 marks
4.	Notifiable Diseases in the Livestock • Foot & Mouth • Anthrax • Newcastle • Black quarter • Fowl pox • Rinderpest • Swine fever $4 \times \frac{1}{2}$	2 marks
5.	Methods of Dehorning • Use of dehorning iron • Use of rubber ring & Elastrator • Use of dehorning wire/saw • Use of dehorning collodion • Use of caustic potash stick $4 \times \frac{1}{2}$	2 marks
6.	Maintenance practices carried out on a Jack plane • Sharpen the blades if blunt • Repair or replace broken parts • Replace lost bolts and nuts • Tighten any loose nuts & bolts • Clean soil after use • Store plane on its side when not in use $4 \times \frac{1}{2}$	2 marks
7.	Characteristics of a good site for an Apiary • Well sheltered place • Away from disturbance eg highway • Near water source • Well drained place / free from dampness • Nearness to Nectar-producing flowers $4 \times \frac{1}{2}$	2 marks

8.	Factors determining the quality of honey • Method of harvesting used • Time of harvesting eg day / night) • Maturity of the honey at the time of harvesting • Processing method employed • Source of Nector used in making honey	$4 \times \frac{1}{2}$	2 marks
9.	Ways of stimulating milk let-down in a dairy cow • Appearance of the Calf where natural feeding is practiced • Appearance of the milkman • Massaging of the udder with warm water • Rattling sound of milking buckets • Suckling by the calf • Putting feeds on the feed troughs	$4 \times \frac{1}{2}$	2 marks
10.	Advantages of using a spray race • Less labour is required • Animals cannot swallow the dip wash • Suitable for sick, pregnant and young animals • Avoids wastage of Acaricides • It's faster	$4 \times \frac{1}{2}$	2 marks
11.	Qualities considered when choosing eggs for incubation • Fertilised • Clean • Free from abnormalities • Free from cracks • Should be fresh • Medium size • Smooth shell • Oval shape	$4 \times \frac{1}{2}$	2 marks
12.	Cropping / Harvesting Distinction • Cropping – This is the removal of marketable size fish from the pond • Harvesting – This is the removal of all the fish in the pond	$2 \times \frac{1}{2}$	1 mark
13.	Why bees are fed with syrup • To maintain bee colony • To encourage multiplication • To supplement what the bees get from flowers	$2 \times \frac{1}{2}$	1 mark
14.	Disadvantages of a tractor as a source of power • Expensive to buy • Require skilled personnel • Their use is limited in certain areas • Expensive to maintain • It requires support services	$4 \times \frac{1}{2}$	2 marks
15.	Features of Large White breed of pig • Upright ears • Broad & slightly dished snout • White with blue body spots • A long body	$4 \times \frac{1}{2}$	2 marks

16.	Conditions under which disc plough can be used instead of mouldboard • Fields with stones • Sticky clay soils • Soils with many roots & stumps • Hard dry soils	$4 \times \frac{1}{2}$	2 marks
	<u>SECTION B</u>		
17.	a) ○ J – Inlet ○ L – outlet b) ○ To prevent the fish from escaping ○ To prevent entry of new fish species or predators into the pond c) ○ Cut back all grass & weeds around the fish pond to remove hiding places for predators ○ Repair any leakages on the walls ○ Fence properly to keep off fish predators ○ Plant grasses on the walls to prevent erosion	2×1 1×1 2×1	2 marks 1 mark 2 marks
18.	Feed Formulation (Pearson's Square) Maize 10% 20 parts of maize  Fish meal 40% 10 parts of fish meal 30 total parts $maize = \frac{20}{30} \times 5000$ $= 3333.3 \text{ kg}$ $Fish \text{ meal} = \frac{10}{30} \times 5000$ $= 1666.7 \text{ kg}$		5 marks
19.	a) ○ B – Chicks move away from heat source due to high temperatures ○ D – Chicks overcrowded at one side of a brooder due to draught / cold winds from one direction b) ○ To prevent cannibalism ○ To prevent blinding of chicks c) To prevent the chicks from overcrowding / huddling together which would result to suffocation and crushing one another	2×1 2×1 1×1	2 marks 2 marks 2 marks

20.	a) Parts ○ R – Handle ○ U – Trigger control ○ S – Lance ○ T – Nozzle b) Maintenance practices of the equipment: ○ Unblock blocked nozzles ○ Wash thoroughly and dry it after use ○ Replace or repair worn-out parts ○ Grease movable parts ○ Tighten any loose parts c) Disadvantages of using the equipment: ○ Cannot be operated by one person ○ Spray small number of animals ○ Wastes the chemicals ○ All the hidden areas of the ticks may not reached by the chemicals after spray	$4 \times \frac{1}{2}$ 2 marks 2×1 2 marks 1×1 1 mark
	<u>SECTION C</u>	
21.	a) Advantages of A.I. ○ There is economical use of semen ○ Controls transmission of breeding diseases ○ Sires that are unable to serve cow due to heavy weight can produce semen to serve cow ○ Prevent large bulls from injuring small cows ○ Reduces the expenses of keeping a bull in the farm ○ Small scale farmers who cannot afford to buy a superior bull can have the cow served at a low cost ○ Semen can be stored for a long time even in the death of the bull ○ Helps to control inbreeding ○ Makes research work easier b) Importance of keeping livestock Healthy. ○ To grow faster ○ To give high-quality products ○ To control spread of diseases to other livestock & man ○ To produce more yields ○ To breed more regularly ○ To reduce cost of treating animals c) Essentials of clean milk production: ○ Healthy milking herd – should be free from milk-borne diseases such as brucellosis which is easily transmitted to man ○ Clean milking shed – Milking parlour should be free from dust or odours ○ Clean milking utensils – Wash with clean hot soapy water, rinse & sterilize ○ Filtering milk – to remove solid impurities / hairs ○ Healthy milk man – milking man should be free from disease ○ Long hairs on the flanks and udder should be clipped off regularly to avoid milk contamination ○ Avoid flavours in milk by avoiding feeds like Mexican Marigold, Onions, pineapple waste ○ Avoid use of utensils made of copper or iron which may bring oxidation ○ Have cooling / Refrigeration to slow down bacterial multiplication ○ Proper storage to avoid multiplication of bacteria	5×1 5×1 5×2 20 marks

22.	a) Procedure of training calf to take milk from a bucket - Well measured milk is put in a calf bucket - Index finger is inserted into the mouth of the calf - Lower the finger slowly until it is submerged in milk as the calf sucks. This allows the calf to drink milk - The finger is withdrawn slowly as the calf continues to drink from the bucket - Steps above are repeated until the calf gets to learn how drink milk from a bucket without any assistance b) Reasons why indigenous cattle breed are well adapted to arid areas. - Ability to tolerate high temperatures - Resistance to tropical diseases & parasites - They walk for long distance in search of water & pastures - They have humps that stores fat which metabolized to produce water & energy - Ability to forage on poor pastures c) Ideal features of a calf pen. - Should be spacious to provide room for feeding & exercise - Should be housed singly – to prevent them from licking each other causing formation of hair ball in the rumen - Should have concrete floor for easy cleaning or slatted floors for easy removal of urines & droppings - Should be well ventilated – for free air circulation - Free from draught to prevent wind that might dispose to infections like pneumonia - Properly drained to prevent dampness in the pen - Well lit – for synthesis of vitamin D	5 × 1 5 × 1 5 × 2 20 marks
23.	a) Causes of low production in layers. - Inadequate feeds - Parasite infestation - Old age - Broodiness - Inadequate waterers & feeders - Inadequate laying boxes - Presence of predators in layers houses - Sudden noise - Sudden change of feeds - Disease infestation - Sudden changes of weather e.g. to cold conditions b) Foot & Mouth Disease. (i) Causal organism - Viruses / Virus type O, A, C (ii) Livestock species attacked - Cattle, Sheep, Pigs, Goats (iii) Symptoms of Attack - Profuse salivation - Emaciation - Blisters with a painful wound on mouth & feet leading to lameness - High fever - Reduced milk production - Anorexia due to inflamed mouth (iv) Control measures - Imposing quarantine - Vaccination every 6 months - Slaughter & dispose off affected animals well - Treat hooves with suitable disinfectants	10 × 1 1 × 1 2 × 1 4 × 1 3 × 1 20 marks