

4.16.2 Agriculture Paper 2 (443/2)

SECTION A (30 marks)

1.	<ul style="list-style-type: none"> a) – Guernsey - Friesian - Ayrshires - Jersey; <p style="text-align: right;">(1 x <input type="checkbox"/> mark)</p>	<input type="checkbox"/> mark)
	<ul style="list-style-type: none"> b) - Sahiwal; - Red poll; - Simmental; <p style="text-align: right;">(1 x <input type="checkbox"/> mark)</p>	<input type="checkbox"/> mark)
	<ul style="list-style-type: none"> c) - Romney mash; - Carridale; - Hampshire Down; <p style="text-align: right;">(1 x <input type="checkbox"/> mark)</p>	<input type="checkbox"/> mark)
	<ul style="list-style-type: none"> d) Angora; 	<input type="checkbox"/> mark)
2.	<ul style="list-style-type: none"> - Blood spots; - Hair cracks; - Excessively porous shell; - Fertilized eggs; - Small size of air space; - Meat sports; <p style="text-align: right;">(4 x <input type="checkbox"/> mark)</p>	(2 marks)
3.	<ul style="list-style-type: none"> - Expand inherited potential of the animal; - Increase productivity; - Environmental adaptability; - Satisfy consumers' tastes; - For increased growth rates for early maturity; <p style="text-align: right;">(4 x <input type="checkbox"/> mark)</p>	(2 marks)
4.	<ul style="list-style-type: none"> - Prevent lameness; - Control foot rot disease; - Prevent injury during mating; <p style="text-align: right;">(2 x <input type="checkbox"/> mark)</p>	(1 mark)
5.	<ul style="list-style-type: none"> - Swollen underside of the body; - Fever; - Blood stained faeces and milk; - Tar like watery blood discharge from orifices; - Lack of <i>rigor mortis</i> in carcass; - Blood does not clot quickly; <p style="text-align: right;">(4 x <input type="checkbox"/> mark)</p>	(2 marks)



6.	<ul style="list-style-type: none"> - Use of dehorning wire/saw; - Use caustic potash stick (Potassium hydroxide); - Use of disbudding iron; - Use of rubber ring and elastrator; - Use of dehorning collodion; 	(4 x <input type="checkbox"/> mark)	(2 marks)
7.	<ul style="list-style-type: none"> - Healthy animals grow fast and reach maturity early; - Provide a long economic and productive life; - To maximize production/performance; - To produce good quality products; - To prevent spread of diseases; - Healthy animals are economical and easy to keep; 	(4 x <input type="checkbox"/> mark)	(2 marks)
8.	<ul style="list-style-type: none"> - Free from contagious diseases; - Physically clean; - Wears white overall when milking and handling milk; - Short finger nails; - Covered hair; 	(4 x <input type="checkbox"/> mark)	(2 marks)
9.	<ul style="list-style-type: none"> - Straighten loose or sagging wires using a wire strainer; - Broken wires should be spliced; - Worn out posts should be replaced; - Broken brace posts and droppers should be replaced; 	(4 x <input type="checkbox"/> mark)	(2 marks)
10.	<ul style="list-style-type: none"> - Produce high quality carcass; - Is highly prolific; - Grows fast and matures early; - Adapted to hot and dry areas; 	(4 x <input type="checkbox"/> mark)	(2 marks)
11.	<ul style="list-style-type: none"> - Bush clearing to destroy breeding grounds; - Spraying breeding grounds with insecticides; - Use of fly trap impregnated nets; - Sterilization; 	(4 x <input type="checkbox"/> mark)	(2 marks)
12.	<ul style="list-style-type: none"> a) Using clinical/veterinary thermometer inserted in the rectum; b) Using a respirometer; observing and counting the rate of inspiration/expiration per minute; c) Place a finger or thumb on an artery passing on a bone or on the lower edge of the animal jaw; 		<input type="checkbox"/> mark)
13.	a) 270 – 285 days;		<input type="checkbox"/> mark)
	b) 113 – 117 days;		<input type="checkbox"/> mark)
	c) 150 days;		<input type="checkbox"/> mark)
	d) 28 – 32 days;		<input type="checkbox"/> mark)



14.	<ul style="list-style-type: none"> - Long and large; - White with blue body spots; - Broad and dished snout; - Upright ears; 	(4 x □ mark)	(2 marks)
15.	<ul style="list-style-type: none"> - Feed the queen, drones and brood; - Protect the hive from intruders; - Collect nectar, pollen, tree nashis, gums, water etc; - Build combs; - Seal cracks and crevices on the hive; - Clean the hive; - Make honey and bees wax; 	(4 x □ mark)	(2 marks)
16.	<ul style="list-style-type: none"> - Open method/surgical method;; - Implanting pellets of female sex hormone beneath the skin of the bird; - Injecting with stilbestrol hormone when they are one day old; 	(3 x □ mark)	(1□ mark)

SECTION B (20 marks)

17.	a) E – open ended spanner; H – Steel float;	(1 mark)	(1 mark)
	b) F – Loosening and tightening specific sized nuts and bolts; G – Digging and collecting manure/trash;	(1 mark)	(1 mark)
	c) F – provides a more firm grip on nuts and bolts; – can work on nuts/bolts in depressions;	(1 mark)	
18.	a) Tick;	(1 mark)	
	b) – Larvae; -Nymph;	(2 x □ mark)	(1 mark)
	c) – East Coast fever; - <i>Anaplasmosis</i> ; -Heart water;	(2 x □ mark)	(1 mark)
	d) -Ploughing pastures; -Burning pastures; -Top dressing using lime or acaricides;	(2 x 1 mark)	(2 marks)
19.	a) J – Inlet; K – Spillway / overflow pipe;	(1 mark)	(1 mark)
	b) Drain the pond during harvesting/cropping;	(1 mark)	
	c) Provide breeding ground for fish;	(1 mark)	



	d) The container with fingerlings is gradually lowered into the pond and tilted for the fingerlings to swim away;	(1 mark)
20.	a) M – Normal presentation; N – Breech/mal-presentation;	(1 mark) (1 mark)
	b) N - Breech presentation;	(1 mark)
	c) - Enlarged and swollen; -Clear mucus discharge;(2 x 1 mark)	(2 marks)

SECTION C (40 marks)

21.	a) - Combs and wattles are large, warm, waxy and red; - Bright orange and alert eyes; - Pale beak; - Oral, moist and reddish vent; - Soft, pliable and wide abdomen; - Space between the keel & pelvic bone is wide i.e. fits 3 -4 fingers; - Alert and active in temperament; - Dry and rugged plumages; - Late moulting; - Pale shanks; - Broodiness is rare; (10 x 1 mark)	(10 marks)
	b) (i) - milking materials and equipment should be availed and within reach of milkman; - Put the cow in the milking palour; - Restrain the cow; - Give food; - Wash the udder and dry it with separation towels; - Check for mastitis infection; (4 x 1 mark)	(5 marks)
	ii. - Tightly grasp the teat at its base between the thumb and forefinger; to prevent back flow of milk into the gland cistern; - Close in the other three fingers; applying pressure from top to bottom; to force the teat's orifice open and drain milk out of the teat; (5 x 1 mark)	(5 marks)
22.	a) (i) Brucella abortus; bacteria; (1 x 1 mark)	(1 mark)
	(ii) - Premature birth occurs; - Retained placenta; - Infertility; - Inflamed tests with low libido in bulls; - Yellowish, brown slimy odourless discharge from the vulva at abortion; (4 x 1 mark)	(4 marks)



	<p>iii.</p> <ul style="list-style-type: none"> - Uses of A.I; - Culling/slaughter affected animals; - Vaccination; - Stockman should avoid contact with aborted foetus; - Blood test on all breeding animals to detect infected ones; - Proper hygiene; <p style="text-align: right;">(5 x 1 mark)</p>	(5 marks)
	<p>b)</p> <ul style="list-style-type: none"> - Chemical composition of the food; - Form in which the feed is offered to the animal; - Species of the animal; - Ratio of energy to protein; - Quantity of food already present in the digestive system of the animal; <p style="text-align: right;">(5 x 1 mark)</p>	(5 marks)
	<p>c)</p> <ul style="list-style-type: none"> - Litter on the floor; for insulation and absorption of moisture; - Fresh air circulation; should have holes on the wall for ventilation/ gaseous exchange; - Heat source; should be provided to maintain correct temperatures; - Feeders and waterers; should be adequate to prevent overcrowding; - Shape of the brooder should be round to prevent overcrowding that leads to suffocation; <p style="text-align: right;">(5 x 1 mark)</p>	(5 marks)
23.	<p>a)</p> <ul style="list-style-type: none"> - Anaemia; - Irritation; - Emaciation; - Poor feeding; - Loss of hair; - Wounds/scratches on the skin; <p style="text-align: right;">(5 x 1 mark)</p>	(5 marks)
	<p>b)</p> <ul style="list-style-type: none"> - Vermin proof to keep away rats; - Well ventilated to avoid dampness in the store; - Water/leak proof to prevent dampness in the store; - Easy to clean – free from cracks and crevices which harbor pests; - Constructed above the ground to prevent dampness; <p style="text-align: right;">(5 x 1 mark)</p>	(5 marks)



	<p>c)</p> <ul style="list-style-type: none"> - Lubricate the water pump regularly; - Use clean water in the radiator; - Remove trash from the fins; - Ensure all pipes are tightly fitted to avoid leakage; - Fill the radiator with clean water before each day's work; - Check the fan belt tension regularly and adjust accordingly; <p style="text-align: right;">(5 x 1 mark)</p>		(5 marks)				
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