### SECTION A (30 marks)

1. a) Guernsey
   - Friesian
   - Ayrshires
   - Jersey;
   
   $(1 \times \square \text{mark})$ $(\square \text{mark})$

   b) Sahiwal;
   - Red poll;
   - Simmental;
   
   $(1 \times \square \text{mark})$ $(\square \text{mark})$

   c) Romney mash;
   - Carridale;
   - Hampshire Down;
   
   $(1 \times \square \text{mark})$ $(\square \text{mark})$

   d) Angora;
   
   $(\square \text{mark})$

2. Blood spots;
   - Hair cracks;
   - Excessively porous shell;
   - Fertilized eggs;
   - Small size of air space;
   - Meat sports;
   
   $(4 \times \square \text{mark})$ $(2 \text{ marks})$

3. Expand inherited potential of the animal;
   - Increase productivity;
   - Environmental adaptability;
   - Satisfy consumers’ tastes;
   - For increased growth rates for early maturity;
   
   $(4 \times \square \text{mark})$ $(2 \text{ marks})$

4. Prevent lameness;
   - Control foot rot disease;
   - Prevent injury during mating;
   
   $(2 \times \square \text{mark})$ $(1 \text{ mark})$

5. Swollen underside of the body;
   - Fever;
   - Blood stained faeces and milk;
   - Tar like watery blood discharge from orifices;
   - Lack of rigor mortis in carcass;
   - Blood does not clot quickly;
   
   $(4 \times \square \text{mark})$ $(2 \text{ marks})$
6. 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 □ mark) (2 marks)

7. 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 □ mark) (2 marks)

8. Free from contagious diseases;  
- Physically clean;  
- Wears white overall when milking and handling milk;  
- Short finger nails;  
- Covered hair;  

(4 x □ mark) (2 marks)

9. 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 □ mark) (2 marks)

10. Produce high quality carcass;  
- Is highly prolific;  
- Grows fast and matures early;  
- Adapted to hot and dry areas;  

(4 x □ mark) (2 marks)

11. Bush clearing to destroy breeding grounds;  
- Spraying breeding grounds with insecticides;  
- Use of fly trap impregnated nets;  
- Sterilization;  

(4 x □ mark) (2 marks)

12. a) Using clinical/veterinary thermometer inserted in the rectum;  
□ mark
b) Using a respirometer; observing and counting the rate of inspiration/expiration per minute;  
□ mark
c) Place a finger or thumb on an artery passing on a bone or on the lower edge of the animal jaw;  
□ mark

13. a) 270 – 285 days;  
□ mark  

b) 113 – 117 days;  
□ mark  
c) 150 days;  
□ mark  
d) 28 – 32 days;  
□ mark
14. - Long and large;
   - White with blue body spots;
   - Broad and dished snout;
   - Upright ears;  
   
   \[(4 \times \square \text{mark})\] \[\text{(2 marks)}\]

15. - 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;  
   \[(4 \times \square \text{mark})\] \[\text{(2 marks)}\]

16. - 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;  
   \[(3 \times \square \text{mark})\] \[\text{(1 \square \text{mark})}\]

**SECTION B (20 marks)**

17. a) **E** – open ended spanner;  
    **H** – Steel float;  
    \[\text{(1 mark)}\]  

    b) **F** – Loosening and tightening specific sized nuts and bolts;  
    **G** – Digging and collecting manure/trash;  
    \[\text{(1 mark)}\]  

    c) **F** – provides a more firm grip on nuts and bolts;  
    – can work on nuts/bolts in depressions;  
    \[\text{(1 mark)}\]

18. a) **Tick**;  
    \[\text{(1 mark)}\]

    b) – **Larvae**;
    - **Nymph**;  
    \[\text{(2 \times \square \text{mark})}\] \[\text{(1 mark)}\]

    c) – **East Coast fever**;
    - **Anaplasmosis**;
    - **Heart water**;  
    \[\text{(2 \times \square \text{mark})}\] \[\text{(1 mark)}\]

    d) - **Ploughing pastures**;
    - **Burning pastures**;
    - **Top dressing using lime or acaricides**;  
    \[\text{(2 \times 1 \text{mark})}\] \[\text{(2 marks)}\]

19. a) **J** – Inlet;  
    **K** – Spillway / overflow pipe;  
    \[\text{(1 mark)}\]  

    b) Drain the pond during harvesting/cropping;  
    \[\text{(1 mark)}\]

    c) Provide breeding ground for fish;  
    \[\text{(1 mark)}\]
<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>20. a) M – Normal presentation;</td>
<td>(1 mark)</td>
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<tr>
<td>N – Breech/mal-presentation;</td>
<td>(1 mark)</td>
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<tr>
<td>b) N - Breech presentation;</td>
<td>(1 mark)</td>
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<tr>
<td>c) - Enlarged and swollen;</td>
<td>(2 marks)</td>
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<td>- Clear mucus discharge; (2 x 1 mark)</td>
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<td><strong>SECTION C (40 marks)</strong></td>
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<tr>
<td>21. a) - Combs and wattles are large, warm, waxy and red;</td>
<td>(10 marks)</td>
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<tr>
<td>- Bright orange and alert eyes;</td>
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<td>- Pale beak;</td>
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<td>- Oral, moist and reddish vent;</td>
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<tr>
<td>- Soft, pliable and wide abdomen;</td>
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<td>- Space between the keel &amp; pelvic bone is wide i.e. fits 3 -4 fingers;</td>
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<td>- Alert and active in temperament;</td>
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<td>- Dry and rugged plumages;</td>
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<td>- Late moulting;</td>
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<td>- Pale shanks;</td>
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<td>- Broodiness is rare;</td>
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<td></td>
<td>(10 x 1 mark)</td>
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<tr>
<td>b) (i)</td>
<td></td>
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<tr>
<td>- milking materials and equipment should be availed and within reach of milkman;</td>
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<tr>
<td>- Put the cow in the milking palour;</td>
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<tr>
<td>- Restrain the cow;</td>
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<tr>
<td>- Give food;</td>
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<td>- Wash the udder and dry it with separation towels;</td>
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<td>- Check for mastitis infection;</td>
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<td>(4 x 1 mark)</td>
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<td>ii.</td>
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<tr>
<td>- Tightly grasp the teat at its base between the thumb and forefinger; to prevent back flow of milk into the gland cistern;</td>
<td></td>
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<tr>
<td>- 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)</td>
<td></td>
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<tr>
<td>22. a) (i) Brucella abortus; bacteria;</td>
<td>(1 mark)</td>
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<tr>
<td>(ii)</td>
<td></td>
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<tr>
<td>- Premature birth occurs;</td>
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<td>- Retained placenta;</td>
<td></td>
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<td>- Infertility;</td>
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<td>- Inflamed tests with low libido in bulls;</td>
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<td>- Yellowish, brown slimy odourless discharge from the vulva at abortion;</td>
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<td></td>
<td>(4 x 1 mark)</td>
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</tbody>
</table>
iii.
- 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;

(5 x 1 mark)  (5 marks)

b)
- 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;

(5 x 1 mark)  (5 marks)

c)
- 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;

(5 x 1 mark)  (5 marks)

23. a)
- Anaemia;
- Irritation;
- Emaciation;
- Poor feeding;
- Loss of hair;
- Wounds/scratches on the skin;

(5 x 1 mark)  (5 marks)

b)
- 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;

(5 x 1 mark)  (5 marks)
c) - 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;

(5 x 1 mark)

<table>
<thead>
<tr>
<th>d)</th>
<th><strong>Diesel</strong></th>
<th><strong>Petrol</strong></th>
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<tbody>
<tr>
<td></td>
<td>- Uses diesel fuel</td>
<td>- Uses petrol;</td>
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<td></td>
<td>- Has injection pump</td>
<td>- Has a carburetor;</td>
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<td></td>
<td>- Fuel &amp; air mixed within the cylinder</td>
<td>- Mixed in the carburetor before it gets into engine</td>
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<tr>
<td></td>
<td>- Fuel ignited by compression of air-fuel mixture</td>
<td>- Ignited by an electric spark;</td>
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<tr>
<td></td>
<td>- Produces a lot of smoke</td>
<td>- Produces less smoke;</td>
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<tr>
<td></td>
<td>- Heavy in weight and suited for heavy duties</td>
<td>- Light and suited for light duties;</td>
</tr>
</tbody>
</table>

(5 x 1 mark)

(5 marks)