



2. JEE+EO+EEEO EdhEi+EE% nme |E|xEEEO =KE% E+V% :- 16
- (+) माजासाठी कारणीभूत असणाऱ्या संप्रेरक, जीवनसत्त्व आणि क्षार यांच्या कार्याची SSES Eo.
- (E) EdjE' E aEEEOSE OEEEO xEE' EEEnEiE +EEbiEO Edf +EEhE EiESaE iEjESaE OEEaEE E'EO E+V%.
- (EO) EdjE' E @EEESaE (B.+EaE.) EE(E%OE` +EEhE EdjE' E @EEExEaE@SE |EEhaEEEO हाताळणी याविषयी शेतकऱ्यांना कशाप्रकारे ज्ञान देता येईल.
3. JEE+EO+EEEO EdhEi+EE% nme |E|xEEEO =KE% E+V% :- 16
- (+) E3aE |EVExE OEEES ESO OESUo xEO] aEa EO xEE' EEEnEiE +EEbiEO Edf.
- (E) EdjE' E @EEESaE (B.+EaE.) (ErüOE EE(E%aEiE aEE% EME3j=(EEoEmE, iEEEO ExEVaiEOE@EEEO MEWE +EEhE (ErüE.
- (EO) ME<C+EEhE "MEOSaE "EEVEiEO+ EEEhE jEO O(E')o Eo.
4. OEE'OE% E+V% (EdhEi+EE% nme) :- 16
- (+) xEEaEAE `aEhaESa E% E+V%. EdjE' E @EEESaE (B.+EaE.) ExEaxE2aE xEEaEAE E'EO E+V%.
- (E) OEEEOE@EEESa (GaV(ObME) jaaEa +EEhE iEa
- (EO) B+E.BxE. 2 E+Eo
5. E]EE E+V% (EdhEi+EE% SE%) :- 16
- (+) {E%Oo÷
- (E) O]h
- (EO) xEEiMEEO jO3yEhaESa jaaEa
- (b) OjEO EEEhbEaE
- (<) OE'ECOE.
6. JEE+EO+EEEO EdhEi+EE% nme |E|xEEEO =KE% E+V% :- 16
- (+) ME<SaE |EVExE OEEES ESO OESUo xEO] aEa EO xEE' EEEnEiE +EEbiEO Edf.
- (E) MEaEaE E3aE Eo]AE Ed EoEEiE ? (ErüE E'EEnu Eo.
- (EO) EdjE' E @EEESaE (B.+EaE.) (ErüEOSE ](aE] (aEa EEE%EO E+V%.

**FROZEN SEMEN TECHNOLOGY (THEORY-III)***Instructions:—All questions are compulsory.***Marks**

1. (a) Fill in the blanks (any *five*) :— 5
- (i) The temperature of Artificial vagina should be .....
  - (ii) Buffalo bull is castrated with the help of .....
  - (iii) The most important instrument in AI is .....
  - (iv) The main work of vasa-deferentia is .....
  - (v) Graffian follicle bursts at the time of .....
  - (vi) ..... examination is the best in cow and buffalo for pregnancy diagnosis.
- (b) State *true* or *false* (any *five*) :— 5
- (i) Scrotal sac is of no importance for thermoregulation.
  - (ii) The penis is covered with a skin called as prepuse.
  - (iii) One good quality bull can reproduced even after his death with AI.
  - (iv) The uterus of goat has two uterine horns.
  - (v) One should not use hand gloves during PD since it gives wrong results.
  - (vi) AV is a great tool in semen collection.
- (c) Give relevant answer (any *five*) :— 5
- |                     |              |                  |
|---------------------|--------------|------------------|
| (i) S-shape         | (ii) Y-shape | (iii) OS pennies |
| (iv) Presence of CL | (v) CL       | (vi) FSH.        |
- (d) Match the following pairs (any *five*) :— 5
- | ‘A’ Group                | ‘B’ Group         |
|--------------------------|-------------------|
| (i) Puberty              | (a) Prolactin     |
| (ii) Oestrogen           | (b) Oxitocin      |
| (iii) Pregnancy hormone  | (c) FSH           |
| (iv) Male hormone        | (d) Progesteron   |
| (v) Milk bed             | (e) Ovulation     |
| (vi) Lating down of milk | (f) Testosterone. |
2. Attempt any *two* of the following :— 16
- (a) Discuss the roll of different hormones, vitamins and minerals responsible for heat.
  - (b) Draw a neat well labeled diagram of artificial vagina and write about buity of its technique.
  - (c) How will you educate the farmer for AI and post AI animal handling.

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CON 235

**Marks**

3. Attempt any *two* of the following :— 16
- (a) Draw a neat well labeled diagram of male reproductive system of cow bull.
  - (b) Write Components of AI and their need and procedure of sterilization.
  - (c) Differentiate between symptoms of heat in cow and buffalo.
4. Give brief answers (any *two*) :— 16
- (a) Importance of record keeping. Discuss various records in AI.
  - (b) Advantages and disadvantages of crossbreeding.
  - (c) LN2 Cylinder.
5. Short notes (any *four*) :— 16
- (a) Pure breed
  - (b) Straw
  - (c) Advantages of natural service
  - (d) Ovaries
  - (e) Cervix.
6. Attempt any *two* of the following :— 16
- (a) Draw a neat well labeled diagram of female reproductive system of cow.
  - (b) Why castration is done in cow bull ? Describe the procedure.
  - (c) Give stepwise AI procedure in detail.
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