8. (a) Importance of herd recording.

(b) "By-products from slaughter houses are not the wastes but rich source of income." Substantiate the statement.

(c) Discuss the public health, animal health and economic importance of water pollution with emphasis on sources along with strategies to control. 15+15+15=45

1(CCE.M)2

Animal Husbandry and Veterinary Science—II

(02)

Time : Three Hours]   [Maximum Marks : 300

INSTRUCTIONS

(i) Answers must be written in English.

(ii) The number of marks carried by each question is indicated at the end of the question.

(iii) The answer to each question or part thereof should begin on a fresh page.

(iv) Your answer should be precise and coherent.

(v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.

(vi) Candidates should attempt question nos. **1** and **5** which are compulsory and any **four** more out of the remaining questions, selecting at least **one** from each section.

(vii) If you encounter any typographical error, please read it as it appears in the text-book.

(viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.

(ix) No continuation sheets shall be provided to any candidate under any circumstances.

(x) Candidates shall put a cross (×) on blank pages of Answer Script.

(xi) No blank page be left in between answer to various questions.

(xii) No programmable Calculator is allowed.

(xiii) No stencil (with different markings) is allowed.

SECTION–A

1. Write short notes of the following questions in about 200 words each.

   (a) Discuss the merits and demerits of different methods of estimating heritability.

   (b) What is crossing of inbred lines for commercial production ?

   (c) Mutations, their types and methods of detecting.

   (d) Inbreeding, upgrading and cross-breeding.

   15+15+15+15=60

2. Define Hardy-Weinberg law. List processes responsible for changes in gene frequency. Describe the changes in gene frequency under migration, mutation and selection against the recessive gene in single locus and two allele cases with complete dominance.

   5+10+10+10+10=45

3. Define Inbreeding. What are the consequences of inbreeding ? Discuss various uses of inbreeding.   45

4. (a) Enumerate the factors affecting milk composition.

   (b) Discuss the role of dairying in rural agriculture. What is the scope and future of dairying in Indian agriculture ?

   (c) Give a detailed description of Operation Flood.

   15+15+15=45

SECTION–B

5. (a) Discuss the public health, animal health and economic importance of air pollution with emphasis on sources and strategies to control.

   (b) Discuss the economic and public health aspects of milk and milk product borne zoonoses including the microbial and non-microbial diseases with antibiotics, plant toxins and toxic chemicals.

   (c) Of late the zoonotic diseases all over the world are increased. Discuss the reasons with their effect on public health and economy, national and state administrative policies.

   (d) Enlist a few existing, emerging and re-emerging zoonotic diseases and their effect on human health and economic conditions and national progress. Discuss briefly.

   (e) What is "one health one hygiene concept" ? What are the problems leading to failure ? What recommendation do you suggest for the well being of public and nation ?

   12+12+12+12+12=60

6. What do you understand by commercial dairy farming ? How does dairy farming in India differ from the advanced countries ?   45

7. (a) Discuss the different conventional and advanced methods adopted to identify the fraudulent meat, problems arising out of this practice and rules and regulations under meat inspection jurisprudence.

   (b) Discuss the strategies adopted for the effective treatments, processing and disposal with an emphasis on public health and economic utilization of slaughter house wastes and by-products.

   22.50+22.50=45