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SEAT No. _____

[17A]

Sardar Patel University

Ty B.Sc. Sixth Semester examination-2017

Subject-Genetics

Date: 08/04/2017

Course-US06CGEN05:Animal Biotechnology

Time :10am to 1pm

Total Marks-70

Q1 Multiple Choice Questions (one mark each). Attempt all

[10]

- 1 Report of First Artificial insemination in India at Mysore was in
A)1939 B) 1998 C) 1987 D) 1949
- 2 Superovulation is done in ____ animal
A)Donor B) Recipient C) Both A and B D) None of above
- 3 _____pronucleus is large in size in zygote
A) Female B) Male C) Both A and B D) None of above
- 4 Enzymes used in tissue disaggregation are -----
A) Trypsin B) Collagenase C) Both A and B D) DNase
- 5 Full form of RPMI is _____ memorial Institute
A) Rosewell park B) Roselin Park C) Roman Park D) None of above
- 6 Substrate is required by cells in _____
A)Cell line B) Primary cell culture C) Both A and B D) All of above
- 7 _____ which help cells to attach with substrate in animal cell culture
A)Transferrin B) Fibronectin C) Albumin D) All of above
- 8 Ovulation takes place in cow after____ of onset of estrus
A) 1hr B) 14days C) 14hrs D) 48days
- 9 _____ phase is absent in initial mitosis in embryonic development
A)G1 B) G2 C) Both A and B D) S
- 10 In transgenic sheep Genes transferred for quality wool was
A)Met E and Met M B)Cys E and Cys M C) Both a and b D) None of above

Q2 Short questions : attempt any ten

[20]

- 1 Give history of animal cell cultures
- 2 Write about transgenic mice
- 3 Enlist advantages of ETT.
- 4 Define superovulation and synchronization
- 5 Write applications of animal cell culture

C12

(PTO)

- 6 What is skin regeneration?
- 7 Write about in vitro fertilization
- 8 Define transformation and transfection
- 9 Give brief about Selection of recipient
- 10 Write advantages of cryopreservation of animal germ plasm
- 11 Write about Cell viability and Toxicity
- 12 Enlist different types of medium for animal cell culture

- Q.3 a. Discuss enzymatic disaggregation for animal tissue culture [05]
b. Give advantages and disadvantages of serum free media [05]

OR

- Q.3 a. Discuss evolution of cell line in animal cell culture [05]
b. Give advantages and disadvantages of serum containing media [05]

- Q.4 Write a detail note on artificial insemination with importance and limitations [10]

OR

- Q.4 a. Discuss grading of embryos and its cryopreservation [06]
b. Give brief account of mammalian embryonic development. [04]

- Q.5 Explain in detail Superovulation and Synchronization of estrus in animals [10]

OR

- Q.5 a. Discuss embryo collection and Transfer in recipients. [7]
b. Write a brief note on hormones used for ETT programme [3]

- Q.6 Discuss any four methods of transfection [10]

OR

- Q.6 Discuss about transgenic animals- Sheep, Pigs, Goats, and Cows [10]

****ALL THE BEST ****