

Animal behavior,
Biotechnology
Microbiology
Paper-107.

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M.Sc. ZOOLOGY.

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5.11.70.

Candidates are required to give their Set 1 answer in their own words.

Gr-A. Answer Q. NO-1 & 2 - is compulsory
and Answer any three from Gr-B

Q. Choose the correct Answer - 1x10 = (10)

- (a) The waggle dance helps bees -
(i) Communicate when they are hunger
(ii) Perfect the avoidance response
(iii) Communicate the location of food.
(iv) Sound the alarm to protect the hive
- (b) The interaction in which an individual gives up or sacrifices some of the own reproductive potential to benefit another individual is called -
(i) Agonistic (iii) Hierarchy
(ii) Territory (iv) Altruism
- (c) A spider web is an example of -
(i) Social Behavior
(ii) Instinctive Behavior
(iii) Learned behavior
(iv) Feeding behavior
- (d) Plasmid consists of -
(i) plasmid vector carrying 2 phases cos sites
(ii) plasmic vector carrying 2 attachment site
(iii) Plasmid vector carrying origin of replication & a 2 phase only
(iv) None of these
- (e) AIDS is not transmitted by
(i) Blood transfusion (ii) Cryoprecipitate
(iii) Breast milk (iv) Plasma

Economic library construction is concerned with -

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- (i) Gene isolation
- (ii) protein production
- (iii) Antibiotics
- (iv) Plasmids.

g) Polymerase used for PCR is extracted from

- (i) Escherichia coli
- (ii) Homo sapiens
- (iii) Saccharomyces
- (iv) None of these

h) Monoclonal antibody technology tumour cells that can replicate and fused with mammalian cells that produce an antibody. The result of this cell fusion is a

- (i) hybridoma
- (ii) myeloma
- (iii) Natural killer cell
- (iv) Lymphoblast

(i) vaccination was invented by

- (i) Jenner
- (ii) Pasteur
- (iii) Watson
- (iv) Crick

(j) The non living characteristic of viruses is

- (i) undergo mutation
- (ii) ability to cause disease in the host
- (iii) ability to be crystallized
- (iv) ability to multiply only inside the host

Q2. Write short notes on any three of the following -

- (i) Cloning vehicle
- (ii) Gene therapy
- (iii) DNA Ligase
- (iv) Antisense RNA
- (v) Antigens & Antibodies
- (vi) Vaccine.
- (vii) Circadian clock

Any three out of these

- Q3. What do you understand by Innate behavior? Explain difference between Innate & Learned behavior. 15
- Q4. Give a brief account of different kinds of vectors used for gene cloning. 15
- Q5. Explain how cloned genes introduced into host cells. 15
- Q6. Describe the structure, mode of infection of HIV virus - Explain AIDS. 15
- Q7. Describe the General characteristics of viruses. Explain structures of virus, TMV, Bacteriophage.
- Q8. Explain common Antibiotics and their mode of action as vaccines/injection.

Answer - Multiple choice

(a) (41) (b) (14) (c) (11) (d) (11)

(e) " (f) (1) (g) " (h) (1)

(i) (1) (j) (1)

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