

Paper-107,M. Sc. Zoology3rd SemesterF.M-70.

Answer Q1 and Q2 is compulsory  
and answer any three from Gr-B.

Q1 :: Choose the correct answer

1x10=10

- (a) In ethology reward is related to  
 (i) Imprinting (ii) Habituation  
 (iii) Learning (iv) Reflex action
- (b) A stimulus that triggers a fixed action pattern is called -  
 (i) a goal or accomplishment  
 (ii) A releaser or Sign stimulus  
 (iii) Imprinting (iv) Reflex arc
- (c) Experiments on Conditioned Reflex were performed by -  
 (i) Lorenz & Tinbergen (ii) Ivan Pavlov  
 (iii) Darwin (iv) Skinner
- (d) The tobacco mosaic virus (TMV) is a  
 approximately \_\_\_\_\_ in size.  
 (i)  $30 \times 18 \text{ nm}$  (ii)  $3000 \times 5 \text{ mm}$   
 (iii)  $800 \times 10 \text{ mm}$  (iv)  $700 \times 30 \text{ mm}$
- (e) vaccination was invented by  
 (i) Jenner (ii) Pasteur (iii) Watson (iv) Crick
- (f) The non living characteristics of all viruses is  
 ability to undergo mutation  
 (i) ability to undergo mutation  
 (ii) ability to cause diseases in the host  
 (iii) ability to multiply ~~only~~ inside the host  
 (iv) ability to

(j) Finest ~~Best~~ genomic substances were cloned in Set 3  
2  
(i) Plasmid (ii) Bacteria (iii) Human (iv) Plants

(h) Cosmid vectors are used for -

(i) cloning small fragments of DNA

(ii) cloning large fragments of DNA

(iii) cloning prokaryotic DNA only

(iv) cloning Eukaryotic DNA only

(i) Which one of the following enzymes is present in the bacteriophage

(i) Succinic dehydrogenase

(ii) Lysozyme (iii) Protease (iv) Urease

(f) The portion of the growth curve where a rapid growth of bacteria is observed is known as

Q2. (i) Lag phase (ii) Logarithmic phase

(iii) Stationary phase (iv) Decline phase

Q2. Write short notes on any three - 5X3  
= 15

(i) Pandemic

(ii) Antigens & Antibodies

(iii) AIDS

(iv) Vaccine

(v) Echo-location -

(vi) Kinesis

(vii) Wagging Dance of Honey bees

(viii) Innate behavior

Gr-B.

Qo. What do you understand by Transgenics. Explain with the evidence that Transgenic Animals are advance form of Animals

Q1. What do you understand by P.C.R.

Explain its mechanism & application  
(Polymerase chain reaction)

(15)

Q5. How do plasmids vectors differ from Phage vectors in their structure and utility.

Q6. What methods do you advise to control COVID-19 in your society. What precautionary measures may be taken to control it.

Q7. Explain ~~Microbial~~ Microbial growth especially in prokaryotic cells. Explain also Growth Curve.

Q8. Describe the structure, mode of infection of HIV virus - Explain AIDS

### Objective Answers

- |           |          |
|-----------|----------|
| (a) (i)   | (g) (i)  |
| (b) (iv)  | (h) (ii) |
| (c) (iii) | (i) (ii) |
| (d) (i)   | (j) (ii) |
| (e) (i)   |          |
| (f) (iv)  |          |

Dr. S.B. Lal  
HOD  
Zoology