(2 ½ Hours)   **[Total marks: 75]**

N.B.: (1) All questions are compulsory
(2) Figures to the right indicate full marks
(3) Draw neat and labelled diagrams wherever necessary

Q.1   Describe the following

a)   Origin of oceans and continents   **07**
                                    OR
a)   Patterns of animal distribution – isolation and bipolarity   **07**
b)   Palearctic realm   **08**
                                    OR
b)   Means of dispersal – accidental transportation by human   **08**
          agencies

Q.2   Answer the following

a)   Site of exposure and root of exposure   **07**
                                    OR
a)   Animal models used in regulatory toxicology studies   **07**
b)   Concept of extrapolation of dose   **08**
                                    OR
b)   Snake venom and scorpion venom   **08**

Q.3   Explain the following

a)   Chi – square test and its significance   **07**
                                    OR
a)   Normal distribution – probability   **07**
b)   Simple linear regression   **08**
                                    OR
b)   Standard variation (S.D)   **08**

Q.4   Describe the following

a)   BLAST   **07**
                                    OR
a)   Bibliographic databases   **07**
b)   Multiple sequence alignment   **08**
                                    OR
b)   Different types of protein chips   **08**

Q.5   **Write short notes on:**

a)   Barriers of animal distribution – vegetative   **04**
                                            OR
a)   Nearctic realm   **04**
b)   Ethical issues in animal studies   **04**
                                            OR
b)   Local toxicity   **04**
c)   Z- transformation   **04**
                                            OR
c)   Alternate hypothesis   **04**
d)   Pharmacogenomics – target identification   **03**
                                            OR
d)   PROSITE   **03**

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