

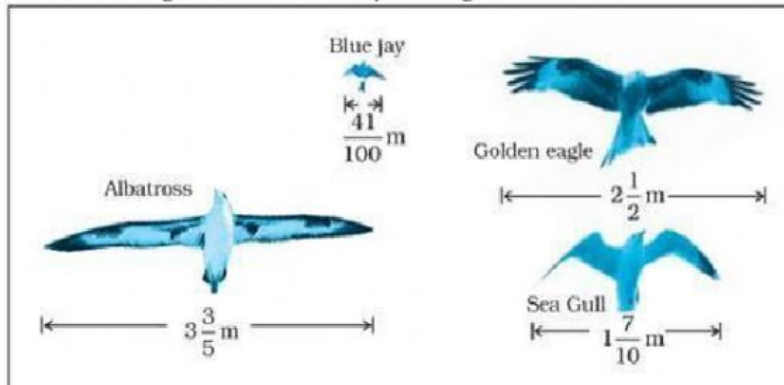
## Theme – 1

### Birds Wing span

Birds have many physical features, besides wings, that work together to enable them to fly. They need lightweight, streamlined, rigid structures for flight. The shape of a bird's wing is important for producing lift. The increased speed over a curved, larger wing area creates a longer path of air. This means the air is moving more quickly over the top surface of the wing, reducing air pressure on the top of the wing and creating lift. Also, the angle of the wing (tilted) deflects air downwards, causing a reaction force in the opposite direction and creating lift.



Larger wings produce greater lift than smaller wings. So the smaller-winged birds need to fly faster to maintain the same lift as those with larger wings. The diagram shows the wing spans of different species of birds. Use the diagram to answer the question given below:



Q1: How much longer is the wingspan of the Albatross than the wingspan of a Sea gull?

Q2: Find the ratio of the wingspan of a Golden eagle to the wingspan of a Blue jay?

Q3: As per the given information which bird can cover maximum distance in 10 minutes?

Q4: If all birds shown in the figure were made to fly at the same time, then which one will be third from last?

- A) Albatross      B) Golden Eagle      C) Sea gull      D) Blue Jay.