BIOLOGY

THIRUVANANTHAPURAM EDUCATIONAL DISTRICT

Standard X

8. The Paths Traversed by Life

Answerkey

- **1. a.** The theory of chemical evolution states that life originated as a result of the changes that occurred in the chemical substances in seawater, under specific conditions in primitive earth.
 - **b.** A. I. Oparin & J. B. S. Haldane.
 - c. Hydrogen, Nitrogen, Carbon dioxide, Methane, Ammonia, Water vapour, Hydrogen sulphide etc.
 - d. Thunder and lightning, Ultraviolet radiations, Volcanic eruptions.
 - e. (i) Monosaccharide

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- (iv) Polysaccharide
- (ii) Nitrogen bases
- (iii) Fatty acids, etc
- (v) Nucleotides
- (vi) Nucleic acids, lipid layer
- **2. a.** The differences in the beaks.
 - b. Variations occured due to the different feeding habits. Accumulation of these variations result in the Origin of new species.
 - c. Thomas Robert Malthus.
 - d. "Origin of Species by Means of Natural Selection."
- **3. A** Struggle for existence.
 - **B** Those with favourable variations.
 - **C** Destroyed.
 - **D** Survive.
 - **E** Favourable variations are transferred to the next generation.
 - **F** Accumulation of variations inherited through generation.