LEGENDS TO TABLES

CHAPTER - I

Table 1.1  World wide average concentrations of some elements in river and sea water 8
Table 1.2  Average speed (cm sec\(^{-1}\)) and direction (True North) of water flow in February, 1983 9
Table 1.3  Tidal variations of salinity with respect to depth 10

CHAPTER - II

Table 2.1  List of different chemicals used during the research with the quality specifications 21-24

CHAPTER - III

Table 3.1  Seasonal changes of surface water and air temperatures 33
Table 3.2  Differences in air and surface water temperatures (T\(^\circ\)C) at different stations 34
Table 3.3  Seasonal variations of chlorinity 35
Table 3.4  Salinity values during pre and post Farakka barrage construction at different points in the estuary 36
Table 3.5  Seasonal variations of average values of salinity and fresh water fraction at different stations 37
Table 3.6  Computations of flushing time 38
Table 3.7  Seasonal variations of dissolved oxygen at different stations 39
Table 3.8  Variations of saturation anomaly with respect to dissolved oxygen 40
Table 3.9  Diel variations of Temperature, Salinity and Dissolved oxygen at St.3 (Monsoon) 41
Legends to Tables (Contd.)

**Table 3.10** Diel variations of Temperature, Salinity and Dissolved oxygen at St.3 (Post monsoon) 42

**Table 3.11** Diel variations of Temperature, Salinity and Dissolved oxygen at St.1 (Monsoon) 43

**Table 3.12** Diel variations of Temperature, Salinity and Dissolved oxygen at St.1 (Post monsoon) 44

**Table 3.13** Diel variations of Temperature, Salinity and Dissolved oxygen at St.1 (Early pre monsoon) 45

**CHAPTER - IV**

**Table 4.a** Seasonal variations of fluoride at different stations 58

**Table 4.1** World wide average river and sea water concentrations of different elements 59

**Table 4.2** Permissible limit of fluoride and chloride ion concentration in drinking water 59

**Table 4.3** Seasonal variations of calcium at different stations 60

**Table 4.4** Seasonal variations of magnesium at different stations 61

**Table 4.5** Regressions equations and percentage of addition and removal of calcium and magnesium 62

**Table 4.6** Values of distribution co-efficient at different chlorinity 63

**Table 4.7** Seasonal variations of free and total boron at different stations 64

**CHAPTER - V**

**Table 5.1** Average concentrations of nutrients 70

**Table 5.2** Monthly variations of phosphate 71
Legends of Tables (Contd.)

Table 5.3  Monthly variations of Nitrate  
Table 5.4  Monthly variations of Silicate  
Table 5.5  Variation of N/P ratio with chlorinity  
Table 5.6  Monthly variations of Si/N ratio in the estuary  
Table 5.7  Variations of average nutrient concentration in the estuarine water during the last 15 years

CHAPTER - VI

Table 6.1  Monthly variations of bicarbonate ion concentration at different station  
Table 6.2  Monthly variations of carbonate ion concentrations at different stations  
Table 6.3  Monthly variations of total carbon dioxide at different stations  
Table 6.4  Monthly variations of total alkalinity at different stations  
Table 6.5  Values of Apparent Oxygen Utilization (AOU) and addition/removal of CO₂ at different chlorinity  
Table 6.6  Values of experimental and calculated parameters based on the observation of pH  
Table 6.7  Stationwise variations of pH in different scales (Mean ± SD)  
Table 6.8  Comparison of f_H and f_H with literature values  
Table 6.9  Solubility product values of Teredo sp. (Calcite) at different salinity and temperature  
Table 6.10  Solubility product values of Macoma sp. (aragonite) at different salinity and temperature
### Table 6.11
Comparison of $pK'_\text{sp}$ values obtained from experiment with literature for Calcite and Aragonite form of $\text{CaCO}_3$.

**Page no.** 110

### Table 6.12
Heat of solution in the temperature range of 5 to 40°C and at different salinity for biogenous $\text{CaCO}_3$.

**Page no.** 111

### Table 6.13
Values of Non Lithogenous Fraction (NLF) of $\text{CaCO}_3$ in the sediment at different stations.

**Page no.** 112