

**B.Sc Sem.-5 Examination****CC 303****Geology****Time : 2-30 Hours]****November-2024****[Max. Marks : 70**

**Instructions:** (i) Draw neat diagrams whenever necessary.  
 (ii) Write proper answer number.

**Q-1** Explain morphological characters, geological time range and Indian horizon (14) of typical terebratula fossil shell.

**OR**

**Q-1** (a) Draw a labeled sketch of typical dibranch fossil. (07)  
 (b) Geological distribution of bivalves and cephalopods. (07)

**Q-2** Discuss multi- proxy evidence for an arid shift in climate with case studies. (14)

**OR**

**Q-2** (a) Concept of uniformitarianism and its significance. (07)  
 (b) Relevance of geological and palaeoecological studies. (07)

**Q-3** Discuss genesis, classification and types of sedimentary deposits. (14)

**OR**

**Q-3** (a) Sedimentary structures with examples from Gujarat. (07)  
 (b) Genesis of Gujarat laterite and coal. (07)

**Q-4** Write detail account on dynamics of fluvial, lacustrine and deep -sea (14) environments.

**OR**

**Q-4** (a) Diagenesis of chemical sediments. (07)  
 (b) Concept of sedimentary facies (07)

**Q-5** **Attempt any seven questions out of twelve.** (14)

- (i) Mention four types of suture lines observed in mollusks with examples.
- (ii) Write at least four types of dentitions in bivalve with examples.
- (iii) Draw a labeled sketch of pallial sinus.
- (iv) Define paleobotany and mention its importance.
- (v) What is paleoecology?
- (vi) Explain the significance of palaeoecological studies.
- (vii) Explain near shore environments.
- (viii) What is photic zone and intertidal zone?
- (ix) Name the detrital sedimentary deposits of Kachchh and Rajasthan.
- (x) Name four calcareous deposits of chemical origin.
- (xi) Mention two characteristics of aeolian environments.
- (xii) Give details of diagenesis of terrigenous sediments.