

**ACTIVITY CODE: 1903108031**

**B.Sc. 6<sup>th</sup> Semester (Honours) Examination, October 2020**

**GEOLOGY**

**Course ID: 62027**

**Course Code: SHGEL-604DSE-4(P)**

**Course Title: Geodynamics Lab**

**Time: 2 Hours**

**Full Marks: 15**

*The figures in the right hand side margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

Answer the following questions:

1. From the following hypothetical Apparent Polar Wandering path (APWP) shown in Fig.1 for the African and Indian continents during the period from Cambrian to Jurassic (cm – Cambrian, d – Devonian, ca – Carboniferous, p – Permian, t – Triassic, j – Jurassic), discuss with reasons about the break-up of India from Africa. 5

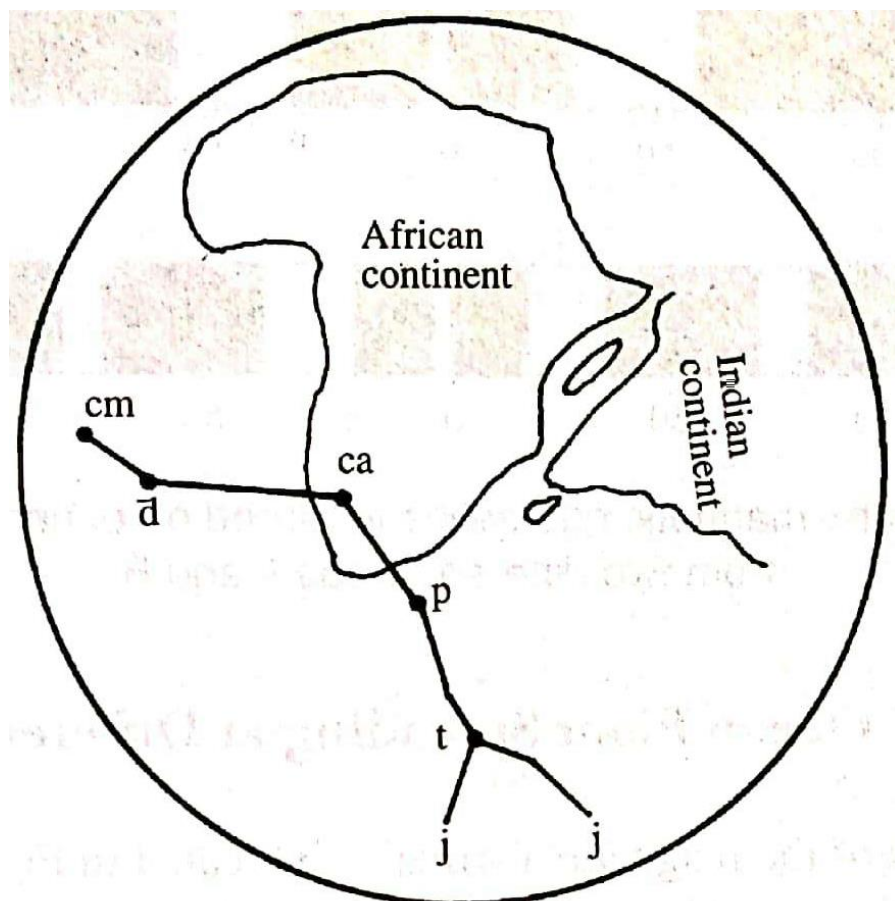


Fig. 1

2. The following table (Table-1) shows the numbers of the magnetic anomalies indicated in Fig. 2, along with the age of the anomalies in millions of years. The width of each band of magnetic anomalies is also given. Calculate the rate of spreading of the ocean floor at different ages and enter the values in the corresponding column in the given Table-1. 5

Table-1: Marine magnetic anomalies across the Mid-Atlantic Ridge.

Band of magnetic anomalies	Width of band (km)	Age (million years)	Rate of spreading (cm/year)
31-25	250	72-63	?
25-5	550	63-9	?
5-0	120	9-0	?

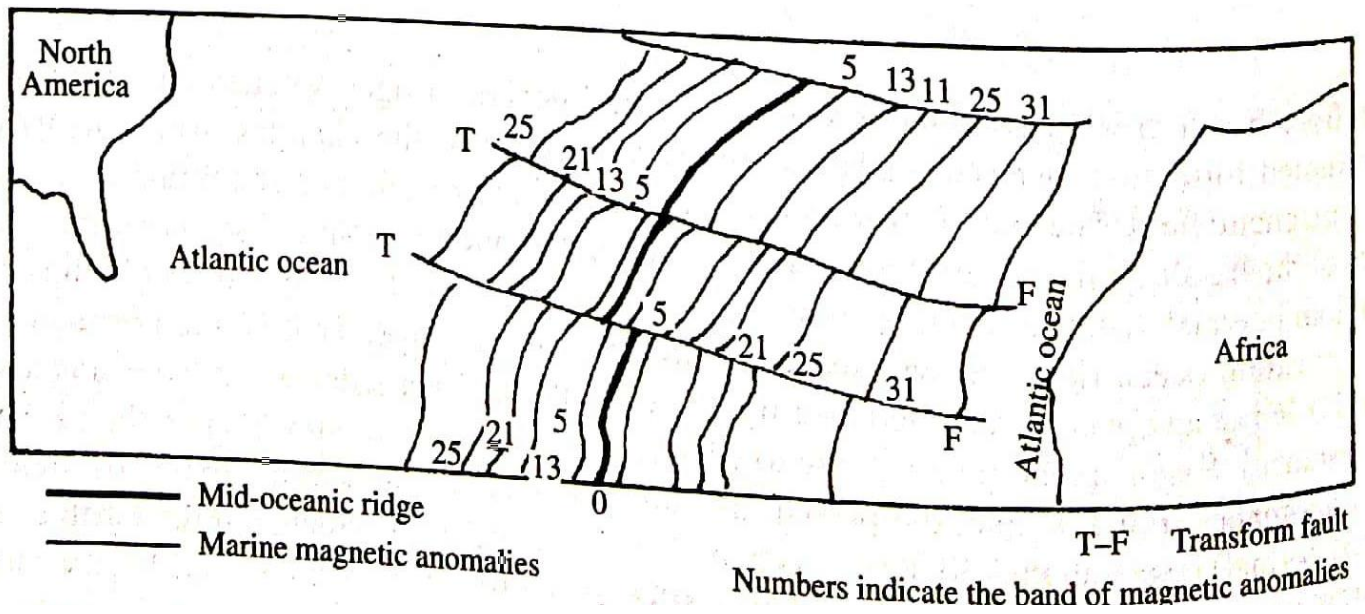


Fig. 2: A diagrammatic sketch of marine magnetic anomalies across the Mid-Atlantic ridge.

3. Viva voce