

QUIZ - 4

T: True, F: False, See the bold text for correct answers

- 1) Juan Fernandez hotspot is located in the Atlantic plate. **F** **Marks: 1**
- 2) Kilauea is a volcano found at dormant stage. **F** **Marks: 1**
- 3) A RRR triple junction has plates A, B, and C. The ridge between plates A and B lies in a north–south direction and has a relative velocity of 60 mm/yr. The ridge between plates B and C has an azimuth of 120° with respect to the triple junction, and the ridge between plates A and C has an azimuth of 270° with respect to the triple junction. The azimuths and magnitudes of the relative velocities between plates B and C and C and A are **Marks: 4**
- a) 200° , 120mm/yr, 270° , 104mm/yr
b) 270° , 1104mm/yr, 210° , 120mm/yr
c) 180° , 120mm/yr, 360° , 104mm/yr
d) **210° , 120mm/yr, 0° , 104mm/yr**
- 4) Magnetic measurements have been made on some lavas found at 60°N , 60°W . The angle of inclination is measured to be 30° . The magnetic latitude of the location where these lavas were erupted is **Marks: 2**
- a) **16°**
b) 30°
c) 60°
d) 41°
- 5) The location of the London, U.K. is 51°N and 0°E . If the geographic and magnetic poles coincide, the inclination of the Earth's magnetic field at London, U.K. is 72° . **F** **Marks: 1**
- 6) True polar wander is related to the motion at the inner-outer core boundary. **F** **Marks: 1**
- 7) A geophysicist is writing a proposal for funding to drill a continuous core through the crust of the Lesser Himalayas. Assuming it is vertical, approximately how long would this core be? **Marks: 1**
- a) 70 kilometers
b) 60 meters
c) **50 kilometers**
d) 40 kilometres
- 8) An oceanic plate is approaching a continental margin. What type of forces the oceanic plate first encounters? **Marks: 1**
- a) Trench suction
b) **Continental resistance**
c) Slab pull
d) Mantle drag
- 9) Ridge push force arises due to **Marks: 1**
- a) Mantle Convection
b) High mantle heat flow
c) **Gravity sliding of new lithosphere**
d) Slab pull at the plate margin
- 10) Rodrigues triple junction is always stable. **T** **Marks: 1**
- 11) The line joining the Hawaiian chain of islands makes an angle with the line joining the Emperor Chain of seamounts indicating a change in direction and speed of the Atlantic plate. **F** **Marks: 1**

12) The lines joining orthogonally with the transform fault along the margin of two tectonic plates will not pass through the Euler pole. **F** **Marks: 1**

13) The reverse direction of magnetic inclination of -40° , and declination of 200° is found for a normal direction of magnetic inclination of 40° , and declination of 110° . **F** **Marks: 1**

14) Convection currents in the plastic mantle are believed to cause divergence of lithospheric plate at the Iceland Hot Spot. **T** **Marks: 1**

15) The palaeomagnetic event associated with the Jaramillo creek is of normal polarity. **T** **Marks: 1**

16) The oldest polarity chron in the sequence of Late Cretaceous is C33 which is equivalent to the age of 85 Ma. **F** **Marks: 1**

17) Choose the lithospheric plate(s) for which ridge push force is not important. **Marks: 1**
a) Capricorn plate
b) Nazca plate
c) **Philippines plate**
d) Cocos plate

18) Alps Mountain is a geologic feature abruptly terminated in the ocean, and reappears at the coasts of Norway. **F** **Marks: 1**
a) **Transform fault**
b) Transcurrent fault
c) Thrust fault
d) Normal fault

19) Mammal-like reptiles were found in abundance in South Africa, South America, Asia and Antarctica. **T** **Marks: 1**

20) Which one of the following belongs to the Quaternary geologic period? **Marks: 1**
a) Pliocene
b) **Pleistocene**
c) Miocene
d) Oligocene

21) Folded mountain ranges at the Cape of Good Hope was continued upto Argentina. **T** **Marks: 1**

22) Glossopteris and Gangamopteris flora were flourished in South America, South Africa, Antarctica, India, Australia and Arabia. **F** **Marks: 1**