Q.1. Select the best option/answer and fill in the appropriate box on the Answer Sheet. (20)

(i) The earth's inner core is composed mostly of:
   (a) solid simatic rock  (b) solid iron and nickel
   (c) liquid iron and nickel  (d) None of these

(ii) Katabatic winds are produced by:
   (a) Pressure gradient  (b) gravity
   (c) adiabatic cooling of ascending air  (d) None of these

(iii) The distinguishing difference between the asthenosphere and lithosphere is their:
   (a) density  (b) degree of rigidity
   (c) chemical composition  (d) None of these

(iv) The mean velocity of the earth in its orbit is about:
   (a) 50,000 mi per hour  (b) 66,600 mi per hour
   (c) 95,000 mi per hour  (d) None of these

(v) The mean distance between the earth and sun is about:
   (a) 90 million miles  (b) 93 million miles
   (c) 95 million miles  (d) None of these

(vi) The prime meridian is referred to as the:
   (a) Meridian of Greenwich  (b) Meridian of East
   (c) Meridian of west  (d) None of these

(vii) The equatorial Mercator is the only one of all known projections on which all Rhumb lines are true:
   (a) straight lines  (b) semi-circles
   (c) triangles  (d) None of these

(viii) The Arctic Circle is at:
   (a) 23° N lat  (b) 45° N lat
   (c) 66° N lat  (d) None of these

(ix) The vernal equinox occurs on:
   (a) March 20  (b) June 21
   (c) September 23  (d) None of these

(x) The percentage of radiant energy reflected back by a surface is termed the:
   (a) Albedo  (b) Al-Nino
   (c) La-Nino  (d) None of these

(xi) Over the equatorial bough of low pressure lying roughly between 5°N and 5°S latitude is the equatorial belt of variable winds and calms, or the:
   (a) Cyclone  (b) Doldrums
   (c) Westerlies  (d) None of these

(xii) The term humidity simply refers to the degree to which water vapour is present in the:
   (a) ground  (b) air
   (c) vegetation  (d) None of these
Q.2. Describe the factors contributing to the origin of ocean currents. Also describe the Ocean Currents of the Atlantic Ocean bringing about their effect on the surrounding areas. (20)

Q.3. Describe the internal structure of the earth in detail giving dimensions, mineral composition and physical properties. What type of evidence is used to obtain this information? What temperatures and pressures may be expected at the earth’s center? (20)

Q.4. Write in detail on the action of the river in its youth, maturity and old age. (20)

Q.5. Write an essay on earthquakes. (20)

Q.6. ‘Wind produces a variety of interesting sequential landforms both erosional and depositional’. Discuss. (20)

Q.7. In what way does the wet, monsoon – dominated climate of southern Asiatic coasts (Am) differ from that close to the equator (Aj). Discuss in detail. (20)

Q.8. What is the distinction between large – scale, medium – scale and small – scale maps? Explain by giving examples. (20)

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