

Total No. of Printed Pages—4

1 SEM TDC GEO M 1

2 0 1 5

(November)

GEOLOGY

(Major)

Course : 101

(**General Geology**)

Full Marks : 80

Pass Marks : 32 (Backlog) / 24 (2014 onwards)

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—1.1

(**Introduction to Geology**)

(*Marks : 15*)

1. Fill in the blanks : 1×2=2

(a) Viscosity of acidic lava is — than that
of basic lava.

(b) Mesozoic era came to an end about —
million years ago.

2. Define micropaleontology and palynology. Write briefly on their applications. 3
3. What is rock cycle? Write on igneous, sedimentary and metamorphic rocks giving suitable examples (*five* for each). 10

Or

Describe the different modes of formation of fossils. Write on application of fossil in geology. 6+4=10

UNIT—1.2

(**Physical Geology**)

(*Marks : 25*)

4. Fill in the blanks : 1×3=3
- (a) Igneous activities are characteristic of — geosyncline.
- (b) According to the theory of continental drift, initially there was only one continent named — and one ocean named —.
- (c) Mohorovicic discontinuity (Moho) lies in between — and —.
5. Write short note on any *one* of the following : 4
- (a) Orogeny and epirogeny
- (b) Vulcanian and Visuvian types of volcanic eruption

6. Define radioactivity. Write on the principal radioactive methods of determination of age of the earth. 2+7=9

Or

What do you mean by plate tectonics? Explain how the hypothesis of seafloor spreading helped in establishment of plate tectonics theory. 4+5=9

7. Write on different causes of earthquake. How are intensity and magnitude of earthquakes expressed? 5+4=9

UNIT—1.3

(**Geomorphology**)

(Marks : 25)

8. Fill in the blanks : 1×3=3
- (a) The process of chemical weathering where kaoline is formed from feldspar is called —.
- (b) Breaching of a natural level during flood result in deposition of — —.
- (c) Elongated sinuous glacial deposits showing stratification are called —.
9. Describe the geomorphic features developed in either eolian or coastal environment. 9

10. Define drainage pattern. Describe with neat sketches the basic drainage patterns. Add a note on relationships between drainage patterns and geological structures. 1+5+3=9
11. Write short note on any *one* of the following : 4
- (a) An ideal soil profile
 - (b) Geomorphology of the Brahmaputra Valley

UNIT—1.4

(Principles of Geochemistry)

(Marks : 15)

12. Fill in the blanks : 1
- The most abundant element in the earth's crust is — followed next by —.
13. Write short note on any *one* of the following : 4
- (a) Composition of meteorites
 - (b) Geochemical environment
14. Write on geochemical classification and association of elements. 5+5=10

Or

Write on Goldsmith's rule of substitution of elements. 10
