

**ACFGY**

Register No.

**2018**

**GEOLOGY**

Duration : 3 Hours

Max. Marks : 300

*General Instructions to the Applicants :*

- i) This Question Paper is descriptive type in Degree Standard.
- ii) There is no reservation of marks for neatness of execution and correctness of spelling in respect of this paper.

TNPSC SPECIMEN

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# GEOLOGY

## PART — A

**Note :** i) Answer not exceeding 50 words each.

ii) Each question carries three marks.

iii) Answer any thirty questions only out of thirty five Questions.

(30 × 3 = 90)

1. Define submarine Canyon.
2. Define Littoral and Rip currents.
3. What is juvenile water?
4. Define secondary or 'S' waves.
5. What is Craton?
6. Define Stratigraphy.
7. List out mega floral assemblages of Gonewana system in India.
8. Can A sharp contrast in the degree of induration indicate unconformity? Explain.
9. Describe the Brunton compass setup.
10. Explain the following structures
  - (a) Diamond shaped out crop
  - (b) Hour glass shaped out crop

11. Give brief on Pallial line in lamellibranchs.
12. What is fusiform in gasteropoda?
13. List the name of suture line in cephalopod shells.
14. What is living fossils?
15. Write a short note on symmetry elements of normal class of Isometric system.
16. Mention any six orthorhombic minerals.
17. What are the elements of a crystal?
18. What are the diagnostic features of zircon?
19. Define Refractive Index.
20. What is total internal reflection?
21. Define Polarisation.
22. What are crystallites in igneous petrology?
23. Define devitrification. Discuss the controlling factors of devitrification.

24. Define magmatic differentiation.
25. Distinguish between porphyritic and poikilitic textures.
26. Elucidate the term porosity.
27. Narrate the origin of coal.
28. Define maculose structure.
29. Write a short note on sublimation deposits.
30. Write a short note on Pegmatitic deposits.
31. What are Gossans?
32. Give brief note on Air drilling.
33. What is over break of Tunnels?
34. Explain Solifluction.
35. State the term Trenching in mining.

## PART — B

- Note :**
- i) Answer not exceeding 100 words each.
  - ii) Each question carries eight marks.
  - iii) Answer any fifteen questions only out of eighteen Questions.

(15 × 8 = 120)

36. Describe the Geomorphologic processes.
37. Give a short note on structure of Cuddapah system with neat sketch.
38. Describe Dalmiapuram Formation.
39. Illustrate the recumbent fold.
40. Describe the importance of unconformities.
41. List the detail note on Preservation of fossils.
42. Write the uses of foraminifera in oil exploration.
43. Give an account on the axial diagram, symmetry of normal class and minerals of Tetragonal system.
44. Give an account on the types of twins with necessary diagrams.

45. Describe the important minerals of Garnet group.
46. Define Cleavage. How is the quality of cleavage described?
47. How is a columnar structure formed?
48. Write the petrological descriptions of the following rocks.
- (a) Syenite
  - (b) Gabbro
49. Describe the origin of evaporites.
50. Describe various types of placer deposits.
51. Discuss briefly the distribution of coal in India.
52. Explain the uses of plane table survey in the geological field.
53. Explain the applications of Remote sensing in Geology.

## PART — C

- Note :**
- i) Answer not exceeding 200 words each.
  - ii) Each question carries fifteen marks.
  - iii) Answer any six questions only out of nine questions.

(6 × 15 = 90)

54. Discuss causes and effects of Earthquakes.
55. Explain principles of stratigraphy and add note on stratigraphic correlation.
56. How to measure the attitude of beds using Clino-Compass. Add a note on the parts of Clino - Compass?
57. Describe the geological distribution and Morphological features of graptolites.
58. Write the physical properties and chemical composition of Pyroxene group of minerals.
59. Write the Petrographic description of the following rock types.
  - (a) Granite
  - (b) Dolerite
  - (c) Pyroxenite
60. Write an essay on different kinds of metamorphism and agents of metamorphism.
61. Write an essay on Mineral Wealth of Tamilnadu.
62. Describe the various causes and prevention methods of Landslides.