



**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2017
FOR RECRUITMENT TO POSTS IN BS-17
UNDER THE FEDERAL GOVERNMENT**

Roll Number

GEOLOGY

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|---|----------------------|---------------------------|
| TIME ALLOWED: THREE HOURS | PART-I (MCQS) | MAXIMUM MARKS = 20 |
| PART-I(MCQS): MAXIMUM 30 MINUTES | PART-II | MAXIMUM MARKS = 80 |
| NOTE: (i) Part-II is to be attempted on the separate Answer Book. | | |
| (ii) Attempt ONLY FOUR questions from PART-II by selecting TWO questions from EACH SECTION. ALL questions carry EQUAL marks. | | |
| (iii) All the parts (if any) of each Question must be attempted at one place instead of at different places. | | |
| (iv) Candidate must write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper. | | |
| (v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed. | | |
| (vi) Extra attempt of any question or any part of the attempted question will not be considered. | | |

PART-II
SECTION-I

- Q. No. 2.** Describe structure of neso silicates. Also draw its sketch. Narrate physical and optical properties of olivine group of minerals. **(20)**
- Q. No. 3.** Describe development of different types of metamorphic facies during subduction process. With the help of temperature-pressure diagram, elaborate regimes of metamorphic facies. **(20)**
- Q. No. 4.** What categories of information we depict from the fossils found in sedimentary strata? Give examples. Describe some of common processes of fossilization. **(20)**
- Q. No. 5.** Outline important events of Indian Plate drift and subsequent tectonics from Mesozoic onwards in Pakistan region. Draw sketches. **(20)**

SECTION-II

- Q. No. 6.** Enlist methods of surface and near surface prospecting methods of oil and gas. Describe implementation details of any two methods, leading to successful discovery of hydrocarbon in a region. **(20)**
- Q. No. 7.** Discuss the geological conditions that normally trigger land sliding in northern Pakistan. Describe some of the measures to mitigate its effects. **(20)**
- Q. No. 8.** Write notes on any **TWO** of the following: **(10 each) (20)**
- a.** Polarizing microscope
 - b.** Paleobotany
 - c.** Geothermal energy
