



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

**Roll Number**

**GEOLOGY**

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

**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

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