



**FEDERAL PUBLIC SERVICE COMMISSION**  
**COMPETITIVE EXAMINATION-2019**  
**FOR RECRUITMENT TO POSTS IN BS-17**  
**UNDER THE FEDERAL GOVERNMENT**

Roll Number

**GEOLOGY**

<b>TIME ALLOWED: THREE HOURS</b>	<b>PART-I (MCQS)</b>	<b>MAXIMUM MARKS = 20</b>
<b>PART-I(MCQS): MAXIMUM 30 MINUTES</b>	<b>PART-II</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) 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 question will not be considered.</b>		

**PART – II**  
**SECTION – I**

- Q. No. 2.** What characteristics a sedimentary strata should contain to be designated as a “Formation”? How the formation is divided into sub-units? Describe the characters of Salt Range Formation. **(20)**
- Q. No. 3.** Elaborate the Plagioclase Series of Feldspar group of rock forming minerals. Describe the physical and optical characteristics of the series. **(20)**
- Q. No. 4.** What is Pull-apart basin? Describe the characteristics of transform movement between two continental blocks. Where you find similar features in Pakistan? **(20)**
- Q. No. 5.** What are Pegmatites? Discuss the texture and mineralogical composition of pegmatites. What precious minerals are associated with acidic pegmatites? **(20)**

**SECTION-II**

- Q. No. 6.** What methods of geophysical exploration are used for metallic ore deposits? What instruments are used for acquisition and interpretation of data? **(20)**
- Q. No. 7.** Differentiate between volcanic and fissure eruptions. Describe types of materials exhaled by volcanoes. How these materials are hazardous to men and environment? **(20)**
- Q. No. 8.** Write short notes on any TWO of the following: **(10 each) (20)**  
**(a)** Source sediments of petroleum.  
**(b)** Site investigation for highway construction.  
**(c)** Site investigation for tunnel construction.

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