

# FEDERAL PUBLIC SERVICE COMMISSION



## COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2012

Roll Number

### GEOLOGY, PAPER-I

<b>TIME ALLOWED:</b>	<b>(PART-I MCQs)</b>	<b>30 MINUTES</b>	<b>MAXIMUM MARKS: 20</b>
<b>THREE HOURS</b>	<b>(PART-II)</b>	<b>2 HOURS &amp; 30 MINUTES</b>	<b>MAXIMUM MARKS: 80</b>
<b>NOTE: (i)</b> Candidate must write <b>Q. No.</b> in the <b>Answer Book</b> in accordance with <b>Q. No.</b> in the <b>Q. Paper.</b> <b>(ii)</b> Attempt <b>ONLY FOUR</b> questions. <b>ALL</b> questions carry <b>EQUAL</b> marks. <b>(iii)</b> Extra attempt of any question or any part of the attempted question will not be considered.			

### PART-II

- Q. 2.** Discuss the internal structure of the earth in the light of seismic velocities. (20)
- Q. 3.** Briefly describe the theory of plate tectonic. Also comment on Indian-Eurasian collision and formation of Himalayas. (20)
- Q. 4.** Discuss the physical properties of minerals dependant on light. (20)
- Q. 5.** Discuss the process of fossilization in detail. (20)
- Q. 6.** Discuss the six general shapes of unit cell. (20)
- Q. 7.** Describe the stratigraphy of Khewra Gorge. (20)
- Q. 8.** Discuss the regional metamorphism with relation to Indian plate margin in Pakistan. (20)

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## COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2012

Roll Number

### GEOLOGY, PAPER-II

<b>TIME ALLOWED:</b>	<b>(PART-I MCQs)</b>	<b>30 MINUTES</b>	<b>MAXIMUM MARKS: 20</b>
<b>THREE HOURS</b>	<b>(PART-II)</b>	<b>2 HOURS &amp; 30 MINUTES</b>	<b>MAXIMUM MARKS: 80</b>
<b>NOTE: (i)</b> Candidate must write <b>Q. No.</b> in the <b>Answer Book</b> in accordance with <b>Q. No.</b> in the <b>Q. Paper.</b> <b>(ii)</b> Attempt <b>ONLY FOUR</b> questions. <b>ALL</b> questions carry <b>EQUAL</b> marks. <b>(iii)</b> Extra attempt of any question or any part of the attempted question will not be considered.			

### PART-II

- Q. 2.** Discuss the mineralization associated with pegmatites. (20)
- Q. 3.** Discuss the genesis of primary kaolin deposits of Pakistan. Also describe the different end uses of this commodity. (20)
- Q. 4.** Describe the theories regarding the origin of hydrocarbons. Also discuss the primary migration of hydrocarbons. (20)
- Q. 5.** Discuss the occurrence, stratigraphy and reserves of coal deposits in Salt range (Cis and Trans Indus). (20)
- Q. 6.** Discuss the different types of slope failure and their stability techniques. (20)
- Q. 7.** Discuss the different geochemical prospection techniques. (20)
- Q. 8.** Write notes on the following: (10)
- (a) Hydrological cycle (10)
- (b) Aquifer types (10)

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