FEDERAL PUBLIC SERVICE COMMISSION

COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BS-17
UNDER THE FEDERAL GOVERNMENT, 2014

GEOLOGY, PAPER-I

Roll Number

TIME ALLOWED:	**(PART-I MCQs)**	**30 MINUTES**	**MAXIMUM MARKS: 20**
THREE HOURS	**(PART-II)**	**2 HOURS & 30 MINUTES**	**MAXIMUM MARKS: 80**

NOTE:**(i)** **Part-II** is to be attempted on the separate **Answer Book.**

(ii) Attempt **ONLY FOUR** questions from **PART-II. ALL questions carry EQUAL marks.**

(iii) Candidate must write **Q. No.** in the **Answer Book** in accordance with **Q. No.** in the **Q. Paper.**

(iv) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.

(v) Extra attempt of any question or any part of the attempted question will not be considered.

PART-II

Q. No. 2. How orthopyroxenes can be differentiated from clinopyroxenes under polarizing microscope? Name the members of ortho-and clinopyroxenes. Write all optical properties of orthopyroxenes. **(20)**

Q. No. 3. With the help of a diagram give the classification of sandstones proposed by Dott or Folk. Describe the composition of each class. **(20)**

Q. No. 4. What are Deltas, how they are formed? Describe deltaic landforms and give the characteristics of deltaic sediments. **(20)**

Q. No. 5. What are volcanoes, how they are formed? Discuss their relationship with orogeny and plate tectonics. Also describe the types of eruptions related with various types of volcanoes. **(20)**

Q. No. 6. What do you understand with palaeocurrent analysis? What are the tools used for this analysis? How palaeocurrent direction is determined using a Rose diagram or a Vector Diagram? **(20)**

Q. No. 7. Differentiate between Chronostratigraphic and Lithostratigraphic units. Which of these units are essentially synchronous and why? Write the stratigraphic succession of Bara Nala Section of Sindh. **(20)**

Q. No. 8. Write short NOTES on the following: **(5 each)** **(20)**

(a) Interference figure **(b)** Metamophic facies

(c) Types of fold **(d)** Suture in Cephalopods

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COMPETITIVE EXAMINATION FOR
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GEOLOGY, PAPER-II

Roll Number

TIME ALLOWED:	**(PART-I MCQs)**	**30 MINUTES**	**MAXIMUM MARKS: 20**
THREE HOURS	**(PART-II)**	**2 HOURS & 30 MINUTES**	**MAXIMUM MARKS: 80**

NOTE:**(i)** **Part-II** is to be attempted on the separate **Answer Book.**
(ii) Attempt **ONLY FOUR** questions from **PART-II. ALL questions carry EQUAL marks.**
(iii) Candidate must write **Q. No.** in the **Answer Book** in accordance with **Q. No.** in the **Q. Paper.**
(iv) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
(v) Extra attempt of any question or any part of the attempted question will not be considered.

PART-II

Q. No. 2. Discuss those geotechnical properties which are considered essential for the selection of durable building material. **(20)**

Q. No. 3. Describe genesis and metallogeny of Muslim Bagh chromite deposits. **(20)**

Q. No. 4. What are the possible causes of water logging and salinity in Pakistan? Discuss some remedial measures for the reclamation of such soil. **(20)**

Q. No. 5. Evaluate Thar coal deposits for power generation. Describe major constrain in this regard. **(20)**

Q. No. 6. Discuss different geophysical techniques used to prospect hydrocarbon deposit in an area. **(20)**

Q. No. 7. Describe formation and occurrences of salt deposits of Salt Range area and its utilization in various industries. **(20)**

Q. No. 8. Write NOTES on any **TWO** of the following. **(10 each)** **(20)**

(a) Geothermal energy

(b) Drilling mud

(c) Land slides

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