



FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION – 2022 FOR RECRUITMENT TO
POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT

Roll Number

GEOLOGY

TIME ALLOWED: THREE HOURS	PART-I (MCQs) MAXIMUM MARKS: 20
PART-I (MCQs): MAXIMUM 30 MINUTES	PART-II MAXIMUM MARKS: 80
NOTE: (i) First attempt PART-I (MCQs) on separate OMR Answer Sheet which shall be taken back after 30 minutes. (ii) Overwriting/cutting of the options/answers will not be given credit. (iii) There is no negative marking. All MCQs must be attempted.	

PART – II

Q2. Describe the principle of plate tectonic with evidence. Explain the Wilson cycle in detail.

Q3. Explain the vertical stacking pattern and Para sequences set. How does the vertical stacking pattern of Para sequences allow for the recognition of systems tracts?

Q4. Explain the tectonic framework of Pakistan with an example of India-Eurasian and Indian-African plate drifting.

Q5. Describe Polarized Light Microscopy along with optical properties of opaque and non-opaque minerals? How do identify the Gout crystal Pseudo-Gout? it?

Q6. Explain different geophysical methods such as gravity, magnetic, electrical resistivity, electromagnetic and seismic. Explain the application of each method, its strength, and its limitations.

Q7. What are the merits and demerits of refraction seismology, magnetic surveying, resistivity surveying, and gravity to probe the depth of bedrock, bedrock lithology, and crustal thickness?

Q8. Write short notes on any TWO of the following:

1. Radioactivity and types of reaction
2. Hadley cell, Ferrell cell, and polar cell of air movement
3. Sedimentary Basin of Pakistan