PUNJAB PUBLIC SERVICE COMMISSION

COMBINED COMPETITIVE EXAMINATION FOR RECRUITMENT TO THE POSTS OF PROVINCIAL MANAGEMENT SERVICE -2020

SUBJECT: GEOLOGY (PAPER-I)

TIME ALLOWED: THREE HOURS **MAXIMUM MARKS: 100**

NOTE:

i. All the parts (if any) of each Question must be attempted at one place instead of at different places.
ii. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
iii. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
iv. Extra attempt of any question or any part of the question will not be considered.

Attempt FIVE Questions in all. Attempt in Urdu or English.

Where necessary, use neat sketches to elaborate the answers.

Q No.1: Discuss the different hypotheses and theories explaining the origin of the Earth and the Solar System. **(20 Marks)**

Q No.2: Discuss the major classifications of folds and what are the two types of geologic structures involved in creating mountains like the Himalayas? **(20 Marks)**

Q No.3: Briefly discuss the various Taphonomic and Diagenetic Processes with examples. **(20 Marks)**

Q No.4: How does the theory of Plate Tectonics explain the formation and deformation of the Earth's surface? Also discuss where crust is being created, destroyed, or remains unchanged. **(20 Marks)**

Q No.5: Discuss the various physical and chemical weathering processes involved in the formation of sedimentary rocks. **(20 Marks)**

Q No.6: Why Salt Range of Pakistan is called field museum of geology? Also Explain Permian and Mesozoic rocks exposed in the Salt Range area with their characteristic features. **(20 Marks)**

Q No.7: Discuss the various physical and chemical properties of minerals. **(20 Marks)**

Q No.8: **Write a short note on the following:** **(4x5=20 Marks)**

a) Bowen's Reaction Series (BRS)
b) Micro and Macro Evolution
c) Plutonic Rocks
d) Geochemical Cycles

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COMBINED COMPETITIVE EXAMINATION FOR RECRUITMENT TO THE POSTS OF PROVINCIAL MANAGEMENT SERVICE -2020

SUBJECT: GEOLOGY (PAPER-II)

TIME ALLOWED: THREE HOURS **MAXIMUM MARKS: 100**

NOTE:

i. All the parts (if any) of each Question must be attempted at one place instead of at different places.
ii. Write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.
iii. No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
iv. Extra attempt of any question or any part of the question will not be considered.

Attempt FIVE Questions in all. Attempt in Urdu or English.

Q No. 1: Describe the theories regarding the Origin of Earth, also describe the Internal Structure of the Earth. **(20 Marks)**

Q No. 2: Define Drainage Pattern and discuss different types of drainage patterns. **(20 Marks)**

Q No.3: Describe the followings, **(20 Marks)**
a) Earth Satellite Systems for remote sensing
b) Principals of Stratigraphy

Q No. 4: Describe the scientific reasons for climate changing phenomenon and discuss the theories regarding climate change. **(20 Marks)**

Q No. 5: Describe fossil, fossilization and discuss the modes of fossil preservation. **(20 Marks)**

Q No. 6: Differentiate between fracture and joint, and describe the Genetic Classification of Joints. **(20 Marks)**

Q No.7: Define Igneous Rocks and describe the classification of Igneous Rocks, with examples, on the basis of chemical composition. **(20 Marks)**

Q No. 8: Write notes on the followings:- **(4x5=20 Marks)**
a) Dam site investigation
b) Uranium and Strategic metals
c) Clastic Sedimentary Rocks
d) Geothermal Energy