FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2024 FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT
GEOLOGY

Roll Number [redacted]

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-I (MCQs)(COMPULSORY)

Q.1. (i) Select the best option/answer and fill in the appropriate Box ■ on the OMR Answer Sheet.(20x1=20)
(ii) Answers given anywhere else, other than OMR Answer Sheet, will not be considered.

1. **The maturity of a rock is a measure of its _____ in terms of hydrocarbon generation.**
(A) Density (B) Temperature (C) State (D) Pressure
2. **Oil derived from coal, oil shales or tar sands is called:**
(A) Natural gas (B) Biomass (C) Syn-crude (D) None of these
3. **Which of the following rock types would most likely be the best oil reservoir?**
(A) Granite (B) Shale (C) Sandstone (D) Salt
4. **A trap formed by varying permeability within the layers of rocks is a:**
(A) Stratigraphic trap (B) Angular traps (C) Structural trap (D) Physical trap
5. **The process of sea rising to cover the land is called:**
(A) Weathering (B) Regression (C) Transgression (D) Erosion
6. **Energy resources derived from natural organic materials are called:**
(A) Geothermal energy (B) Biomass (C) Fossil Fuel (D) All of these
7. **Which shape of earth is used for Geographic Coordinate System?**
(A) Ellipsoid (B) Circle (C) Flat plane (D) Geoid
8. **In case of R.F. the denominator of the fraction shows the:**
(A) Map Distance (B) Ground distance (C) Scale (D) Number
9. **Latitudes and longitudes refer to:**
(A) Relative location (B) Absolute location (C) Topology (D) Projection
10. **Quartzite is metamorphosed from:**
(A) Shale (B) Limestone (C) Both (A) & (B) (D) Sandstone
11. **A sedimentary rock composed of rounded gravel is called a:**
(A) Boulder (B) Cobble (C) Breccia (D) Conglomerate
12. **Black coloured soil indicates abundant of:**
(A) Sandstone (B) Iron content (C) Clay content (D) Organic content
13. **Which of the following process shows chemical weathering?**
(A) Spheroidal weathering (B) Hydrolysis and hydration
(C) Thermal expansion (D) Frost heaving
14. **The sea breeze blows during:**
(A) Day from land to sea (B) Day from sea to land
(C) Night from land to sea (D) Night from sea to land
15. **The reason behind the drifting away of continents is:**
(A) Volcanic eruptions (B) Tectonic activities (C) Folding and faulting (D) Change in landform
16. **Which of the following process are involved in the formation of sedimentary rocks?**
(A) Fractional crystallization (B) Lithification (C) Weathering (D) Mountain building
17. **The study of movement inside earth is called:**
(A) Plate Tectonics (B) Seismology (C) Geodesy (D) Structure Geology
18. **Ox-bow lakes are formed due to:**
(A) Flooding (B) Intense meandering (C) Erosion (D) Flow of water
19. **A stretch of land surrounded by water on all sides is called:**
(A) An island (B) A strait (C) A peninsula (D) A bay
20. **Core of the Earth is the:**
(A) Innermost layer (B) Outer zone (C) Atmosphere over the layers (D) Middle zone

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PART-II

NOTE: (i) Part-II is to be attempted on the separate Answer Book.
(ii) Attempt **ONLY FOUR** questions from PART-II by selecting **TWO** questions from **EACH SECTION. ALL** questions carry **EQUAL** marks.
(iii) All the parts (if any) of each Question must be attempted at one place instead of at different places.
(iv) Write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper.
(v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
(vi) Extra attempt of any question or any part of the question will not be considered.

SECTION-A

Q. No. 2. What is the difference between fracture and joints? Discuss importance of fracture and joint analysis. **(20)**

Q. No. 3. Discuss in detail the concept and terminology of faults. Discuss criteria for identification of faults. **(20)**

Q. No. 4. What are igneous rocks? Give in short, the mineralogical and textural classification of igneous rocks. **(20)**

Q. No. 5. Write briefly an overview of the major tectonics features of Pakistan. **(20)**

SECTION-B

Q. No. 6. Describe characteristic features for occurrence of Petroleum System in any Basin. **(20)**

Q. No. 7. Write in detail types, occurrence and uses of economic mineral deposits of Punjab. **(20)**

Q. No. 8. What is a landslide? Explain the types of slides and the factors that trigger landslides. **(20)**

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