FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2025 FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT
ENVIRONMENTAL SCIENCE

Roll Number

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. Which country hosted the COP28 conference in 2023?
(A) Egypt (B) Brazil (C) Dubai (D) None of these

2. Which of the following activities is a major contributor to the increase in greenhouse gas emissions?
(A) Planting trees (B) Burning fossil fuels (C) Recycling plastic (D) None of these

3. Bioaccumulation is the buildup of pollutants in:
(A) Living Organs (B) Non-living matter (C) Living organisms (D) None of these

4. What does 100 parts per billion (ppb) equal to?
(A) 0.1% (B) 0.001% (C) 0.01% (D) None of these

5. Which gas is primarily responsible for the depletion of the ozone layer?
(A) Nitrogen oxide (B) Carbon dioxide (C) Chlorofluorocarbons (D) None of these

6. Which country has been actively involved in advocating for addressing loss and damage at COP27, especially considering its vulnerability to climate change impacts?
(A) Maldives (B) Pakistan (C) Brazil (D) None of these

7. What is biomagnification?
(A) Increase in the concentration of a substance in tissues at higher trophic levels
(B) If the rate of chemical intake exceeds the rate of excretion
(C) Increase in reproductive rates of a population (D) None of these

8. Which term refers to the variety of life forms on Earth?
(A) Ecosystem (B) Biomass (C) Biodiversity (D) None of these

9. What is the primary factor influencing groundwater chemistry?
(A) Rock composition (B) Precipitation (C) Temperature (D) None of these

10. Which biome is characterized by low temperatures, permafrost, and a lack of trees?
(A) Grassland (B) Tropical rainforest (C) Tundra (D) None of these

11. Which type of aquifer is highly vulnerable to pollution?
(A) Artesian aquifer (B) Unconfined aquifer (C) Confined aquifer (D) None of these

12. Which of the following is NOT the primary mechanism of heat transfer in the atmosphere?
(A) Advection (B) Convection (C) Conduction (D) None of these

13. What is the term for the loss of biodiversity due to human activities?
(A) Extinction (B) Erosion (C) Desertification (D) None of these

14. Which type of remote sensing is commonly used for studying vegetation health?
(A) Infrared sensing (B) UV sensing (C) Microwave sensing (D) None of these

15. NEQS stands for:
(A) National Energy Quality Standards (B) National Environmental Quality Standards
(C) National Environmental Quick Solutions (D) None of these

16. Which factor is an essential component in understanding disaster risk?
(A) Recovery (B) Preparedness (C) Probability (D) None of these

17. A country is considered water-stressed when per capita water supplies drop below cubic meters (m^3).
(A) 1700 (B) 1000 (C) 700 (D) None of these

18. Which gas is released by incomplete combustion?
(A) Methane (B) Carbon monoxide (C) Nitrogen (D) None of these

19. The boundary between the Stratosphere and the Mesosphere is known as the:
(A) Stratopause (B) Tropopause (C) Thermopause (D) None of these

20. The term EIA stands for:
(A) Environmental Impact Assessment (B) Environmental Impact Analysis
(C) Ecological Investigation Agency (D) None of these

PART-II

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) 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.

Q. No. 2. How have the industrial and agricultural revolutions contributed to environmental challenges. What lessons can be learned to promote sustainable development? **(20)**

Q. No. 3. How does population growth exacerbate poverty, biodiversity loss, and energy insecurity? What strategies can ensure sustainable development in rapidly urbanizing regions? **(20)**

Q. No. 4. How can advancements in environmental biotechnology, physics, and chemistry impact the mitigation of pollutants in ecosystems and what will be its impacts on human health? **(20)**

Q. No. 5. Discuss the causes and consequences of the air pollution problem in Pakistan. **(20)**

Q. No. 6. How different climate types are formed in the world? Discuss tropical, polar, and dry categories of climate. Write down their characteristics. How will they respond to climate change, and what are the key indicators that highlight these changes? **(20)**

Q. No. 7. Evaluate the effectiveness of the Pakistan Environmental Protection Act of 1997 and Pak EPA Regulations 2000 in addressing environmental governance and pollution control. **(20)**

Q. No. 8. How do global frameworks like the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Montreal Protocol align with Pakistan's environmental goals, particularly in addressing climate change and ozone layer depletion? **(20)**

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