

# FEDERAL PUBLIC SERVICE COMMISSION



**COMPETITIVE EXAMINATION FOR  
RECRUITMENT TO POSTS IN BS-17  
UNDER THE FEDERAL GOVERNMENT, 2012  
GENERAL KNOWLEDGE, PAPER-I  
(EVERYDAY SCIENCE)**

Roll Number

<b>TIME ALLOWED:</b>	<b>(PART-I MCQs)</b>	<b>80 MINUTES</b>	<b>MAXIMUM MARKS: 50</b>
<b>THREE HOURS</b>	<b>(PART-II)</b>	<b>100 MINUTES</b>	<b>MAXIMUM MARKS: 50</b>
<b>NOTE: (i) Candidate must write Q. No. in the Answer Book in accordance with Q. No. in the Q. Paper.</b>			
<b>(ii) Overwriting/cutting of the options/answers will not be given credit.</b>			

## PART-II

**NOTE: (i) PART-II is to be attempted on separate Answer Book.**  
**(ii) Attempt ONLY FIVE questions from PART-II. All questions carry EQUAL marks.**  
**(iii) Extra attempt of any question or any part of the attempted question will not be considered.**

- Q. 2.** Write briefly about two or more major achievements of each of the following two famous Muslim scientists: **5x 2=10**
- (a) Abu Abdullah Mohammad Bin Musa Al Khwarizmi  
(b) Abu Ali Al Hassan ibn Al Hassan Al Haytham
- Q. 3.** (a) List four or more physical characteristics of the Earth. **(05)**  
(b) Briefly explain how Seasons and Ocean Tides are produced on the Earth? **(05)**
- Q. 4.** (a) Very briefly explain the difference between Earthquakes, Volcanic eruptions, Floods and Tsunamis. **(05)**  
(b) Briefly explain the difference between Sedimentary and Metamorphic rocks. **(05)**
- Q. 5.** (a) Very briefly explain the difference between an Insulator, a Conductor, a Semiconductor and a Superconductor. **(05)**  
(b) Briefly explain the difference between a Laser and a Photovoltaic Cell. **(05)**
- Q. 6.** (a) Briefly explain the difference between an Antibiotic, an Antiviral Drug, a Pesticide and a Vaccine. **(05)**  
(b) List any two of the three things that the MMR vaccine protects against. List any two other vaccines given to children. **(05)**
- Q. 7.** (a) Briefly explain how Photosynthesis works. **(05)**  
(b) Briefly explain the Nitrogen Cycle in nature. **(05)**
- Q. 8.** (a) Differentiate between the following: **(05)**  
Deoxyribonucleic Acids (DNA)  
Messenger Ribonucleic Acids (mRNA)  
Proteins  
(b) Explain how DNA, mRNA and Proteins are interrelated to each other. **(05)**
- Q. 9.** (a) Explain what is meant by a balanced diet? **(05)**  
(b) Give the major function of the following micronutrients: **(05)**  
Vitamin A  
Vitamin C  
Iron  
Calcium  
Iodine

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