

FEDERAL PUBLIC SERVICE COMMISSION COMPETITIVE EXAMINATION-2022 FOR ECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT GENERAL KNOWLEDGE-I (GENERAL SCIENCE & ABILITY)

TIME ALLOWED: THREE HOURS PART-I (MCQS) MAXIMUM MARKS = 20**PART-I(MCQS): MAXIMUM 30 MINUTES PART-II** MAXIMUM MARKS = 80 NOTE: (i) Part-II is to be attempted on the separate Answer Book. Attempt ONLY FOUR questions from PART-II by selecting TWO questions from EACH SECTION. (ii) ALL questions carry EQUAL marks. All the parts (if any) of each Question must be attempted at one place instead of at different places. (iii) Write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper. (iv) **(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. (vii) Use of Calculator is not allowed. <u>PART – II</u> (SECTION – A) What do you know about Volcanoes? Discuss the causes and effects of volcanic eruptions. **O.** 2. (a) (5)Differentiate between renewable and non-renewable sources of energy. Briefly explain wind **(b)** (5) energy, solar energy and biofuels. What is a Tornado? How is it formed and what are the effects of tornadoes? Explain briefly. (5) (c) Discuss various factors which affect the variations in the climate of a place. (5)(20)(d) Q. 3. (a) Discuss Vaccination, types of Vaccines, their side-effects and effectiveness. (5) What is Polio? Discuss its symptoms, causes of spreading, prevention and vaccine. (5) **(b)** What do you understand by the DNA and RNA? (c) (5) (d) What is Solid Waste? Discuss the main issues of Solid Waste Management in our country? (5)(20) Q. 4. (a) Define the term Water Pollution. What indicators are used to measure the quality of water? (5) Write down the drinking water quality standards. What do you understand by the term Population Planning? Point out the different benefits of (5) **(b)** Population Planning. Discuss the possible negative effects that Pakistan my face due to Global Warming and (5) (c) Climate Change. What steps may be helpful to control the climatic change? What is Radioactivity? Differentiate between natural and artificial radioactivity. (5)(20)(d) Q. 5. (a) What do you understand by the term Remote Sensing? Write its basic principle. Give its (5) important applications. Explain the Optical Fiber. Explain how Fiber Optic Communication works? (5) **(b)** Briefly explain the working and structure of a Cell Phone. (5) (c) Explain Artificial Intelligence. What do you understand by the term Robotics? (5)(20)(d)

(SECTION – B)

- Q. 6. (a) For his morning walk Aslam went 110 meters towards east from his house and then turned (5) right to keep walking for 40 meters before turning right again. After continuing to walk for 50 more meters, he turned right again and kept walking for another 120 meters, before he sat down on a bench at the park. How far was the bench located from his house?
 - (b) The income of a company decreased by 10% and 15% in two successive years. What is the (5) percentage of decrease in income after two years?
 - (c) What do you understand by Mental Ability Scales? Differentiate between Aptitude and (5) Intelligence?
 - (d) Discuss the factors affecting Intelligence.

GENERAL KNOWLEDGE-I (GENERAL SCIENCE & ABILITY)

Q. 7 (a) (b)	The sum of three consecutive odd numbers is 273. What are the three odd numbers? Find the missing number in the given series. (i) 4, 16, 36, 64, ?, 144. (ii) 30,29,27,?, 20, 15 (iv) 0,2,6,12,20,30, ? (v) 48, 24, 72, 36, 108, ?	(5) (5)
(c)	Find out the correct word from the given jumbled spellings. (i) THRSI (ii) GNDREA (iii) SCHAMOT (iv) ONLNDO (v) HIODALY	(5)
(d)	Sara's mother is 6 times older than Sara, where as her brother Ali is twice as old as Sara. In three years' time the sum of their ages will be 72. How old are Sara, Ali and their mother now?	(5)(20)
Q. 8. (a)	What do you understand by Sampling? Discuss Non-Probability Sampling.	(5)
(b)	Aslam is willing to use the stylish ceramics tiles in the lounge of his under-construction house. The shape of the tile is a right triangle, having the lengths of two legs of 12 cm and 4 cm. Each tile costs Rs. 15. How much will it cost to fill the lounge of 8 meters length and 6 meters width with these tiles?	(5)
(c)	During a sale a clerk was putting new price tags on each item. On one sweater, he accidentally raised the price by 20% instead of lowering the price by 20%. As a result the price on the tag was Rs. 80 too high. What was the original price of the sweater?	(5)

(d) If in a certain language, BROTHER is written as QDGSNQA, then in the same language, (5)(20) SISTER would be written as -----?
