TIME ALLOWED: THREE HOURS	PART-I (MCQS)	MAXIMUM MARKS = 20
PART-I(MCQS): MAXIMUM 30 INUTES	PART-II	MAXIMUM MARKS = 80

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.**

PART-II
SECTION-I

Q. No. 2
  a. On 18th December 2023 Volcano was erupted in Iceland after series of small earthquakes, discuss how Volcanoes are erupted?
  b. What is Big Bang and Big Crunch? How age of the universe is determined?
  c. Discuss any five sources of Renewable Energy.
  d. 820 km of optical fiber is laid down between Khunjerab Pass and city of Rawalpindi under CPEC, how optical fibers work?

Q. No. 3
  a. 2023 was the hottest year according to Asian Development Bank. What are major hurdles in developing countries to tackle the impacts of global warming? Highlight in accordance with COP-28.
  b. Write a note on Balanced Diet.
  c. Machine learning is the subset of Artificial Intelligence. How it has revolutionized the today's world?
  d. Distinguish RAM and ROM of Computers.

Q. No. 4
  a. What are the methods employed in Solid Waste Management?
  b. How does a Human Heart work in blood circulation?
  c. What is Myopia and Hyperopia? Enlist the major parts of Human Eye.
  d. Write uses of each of the following:
     i)Microwave   ii) Ultraviolet   iii) X-Rays

Q. No. 5
  a. What are the different methods of food preservation?
  b. What is Milkyway? How Dark Matter is related to Galaxies? Give different parts of Galaxies.
  c. Distinguish Solar and Lunar eclipses.
  d. What are Nuclear Fission & Fusion? Explain ionic bond in table salt.
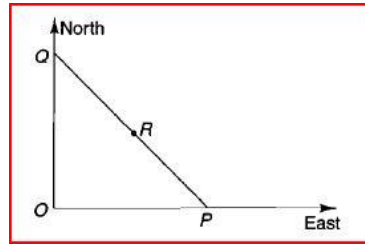
SECTION-II

Q. No. 6
  a. Three candidates contested elections in a constituency of Islamabad and received votes 15000, 10000 and 8000 respectively. What is the percentage of total votes of the winning candidate?
  b. The ratios of angles of a triangle are 3:4:5 in total distribution. Find the each angle.
  c. In a sports meet, group of boys and girls are to be formed. Each group consists of 4 boys and 6 girls. How many boys are required, if 102 girls are available for such groupings?

d. The ratio of present ages of A & B is 6:7. After 5-years this ratio would become 7:8. Find present ages of A and B.

Q. No. 7
a. In the given figure, P is 300 km eastward of O and Q is 400 km North of O, R is exactly in the middle of Q and P, Find the distance between Q and R.

b. Find the angles of perimeter of regular Pentagon with each side of 5cm.
c. How IQ is determined by the formula if mental age is 11-years and person is 9-years old?
d. The average age of three boys is 15 years if their ages are in the ratio 3:5:7.What is the age of the youngest boy?

Q. No. 8
a. The sum of three consecutive odd numbers is 273. That are the three odd numbers?
b. Find the missing number in the given series.
(i) 4, 16, 36, 64, ?, 144. (ii) 30, 29, 27, ?, 20, 15 (iii) 1, 7, 15, 25, ?, 51 (iv) 0, 2, 6, 12, 20, 30, ? (v) 48, 24, 72, 35, 108, ?
c. Find out the correct word from the given jumbled spellings.
(i) THRSI (ii) GNDREA (iii) SCHAMOT (iv) ONLNDO (v) HIODALY
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?

***** We wish you Good Luck for CSS-2024*****