



NATIONAL OFFICERS ACADEMY
Mock-8 for CSS2024
January 2024
GENERAL KNOWLEDGE-I
GENERAL SCIENCE AND ABILITY

TIME ALLOWED: THREE HOURS

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. Discuss key features of COP-28 held in UAE in Nov-Dec.2023 in context of Loss and Damage fund and some other financial issues of developing countries.
- b. What is Solid Waste Management? Discuss different methods.
- c. Write a note on Balanced diet.
- d. Discuss any three renewable energy resources under CPEC.

Q. No. 3

- a. Discuss different parts of eye. How far-sightedness & short-sightedness can be corrected?
- b. How does a Kidney work? Explain with diagram.
- c. How Black Holes are formed?
- d. What are isotopes, isobars and isotones? Give examples of isotopes of Hydrogen.

Q. No. 4

- a. How earthquakes are generated? Distinguish with Tsunami.
- b. What is Coriolis force? How Hurricanes are generated?
- c. Distinguish Solar & Lunar Eclipses.
- d. What is doping in Semi-Conductors. Discuss different types of Ceramics.

Q. No. 5

- a. Distinguish between RAM and ROM. Also define Nibble and USB.
- b. How AI has revolutionized the world? Justify.
- c. How does an optical fiber work? Write some of its advantages.
- d. What is critical speed of a Satellite? Differentiate Geo-Stationary and Polar Satellites.

SECTION-II

Q. No. 6

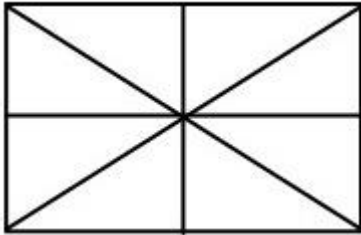
- a. Five years ago age of father was thrice the age of son. If son is 30 years old now .What is current age of father?
- b. Mean of 10, 30, Y, and 50 is 50. What is value of Y?
- c. Find the missing terms:
 - i. 2,6,18,54,_____.
 - ii. 3125,256,_____,4,1.
- d. If the product of two numbers is 320 and their ratio is 1:5. What is the difference between the squares of these two numbers?

Q. No. 7

- a. A woman sold two scooties for 96000 each. In the sale of the first scooty, he got 20% profit and in the sale of the second, he got 20% loss. What is the gain or loss percentage in total?
- b. 195 men working 10 hours a day can finish a job in 20 days. How many men are employed to finish the job in 15 days if they work 13 hours a day?
- c. If $A = \{a, e, i, o, u\}$, $U = \{a, b, c, \dots, z\}$. Find A' .
- d. A square pyramid has volume of 372 cm^3 & height is 3km., determine the perimeter of its base.

Q. No. 8

- a. A crow travels south 5km, and then 3km west, and then 4km north. Finally travels 2km south-east. How far is the crow from initial point?
- b. A pizza is divided into 8 slices in which 3slices contain raisin in it; Shiza picks a slice, what is the probability that she will pick a slice with raisin?
- c. Find the number of triangles in the following figure:



- d. Discuss the factors which can affect IQ.

***** *Good Luck for CSS2024******