



NATIONAL OFFICERS ACADEMY
E-Mock Exams CSS-2022
April 2021 (Mock-I)
GENERAL KNOWLEDGE-I
GENERAL SCIENCE AND ABILITY

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. Describe different methods to estimate the age of the Universe.
- b. Explain the terms Dark Energy and Dark matter.
- c. Define the term Black Hole. What's expected inside it?
- d. Explain the formation of Lunar Eclipse.

Q. No. 3

- a. What are pesticides? Explain their different types; why persistent pesticides are more lethal for mankind?
- b. What are carbohydrates? Classify and give detail of each along with examples. Why are they harmful for human health?
- c. Discuss different methods of food preservation. Why is it an emerging field in biotechnology?
- d. Where and how fiber optics are made? Also write down their advantages & disadvantages.

Q. No. 4

- a. What is the importance of forests in the economy of a country?
- b. Give a brief account of biotechnology mentioning it as an emerging field.
- c. Do the mammals always lay eggs? If yes, where in the world do they live? Write the name of some of them.
- d. How can the sun have such a strong gravitational field if it's made of gases?

Q. No. 5

- a. Write a note, how data is stored on a 'Hard Disk'.
- b. How an 'Optical Fiber' is conducted? How is it helpful in transmitting the Electromagnetic radiations?
- c. Write a comprehensive note on 'Balanced Diet'.
- d. What is 'Artificial Intelligence'? How it is helpful for humanity?

SECTION-II

Q. No. 6

- a. It takes 3 liters of paint to cover an area of 24 square meters. What percentage increase in the quantity of paint would be required to cover an area of 50.4 square meters?
- b. An automobile travels 3 km towards South, 4 km towards west, 5 km towards north & 2 km towards south-east. How far is it from its starting position?
- c. Rizwan started a business with a capital of Rs.15,000. After 5 months Umar also joined him with an investment of Rs.30,000. At the start of 9th month, Usman joined them by investing Rs.45,000. At the end of the year they earned a profit of Rs.406,000. Find the share of each one.

- d. A man left his property of Rs.640,000. A debt of Rs.40,000 was due to him and Rs.5000 was spent on his burial. Distribute the amount between his widow, one daughter and two sons according to Islamic values.

Q. No. 7

- a. Tariq can do a tailoring job in 6hours.Sajid does the same job in 4hours. Sajid leaves after two hours and Irfan replaces him. How long would it take to complete the work?
- b. There are seven students in a group having ages 17,17,18,18,18,19,19. Calculate mean, median, mode and range of their ages. Also define the mentioned items.
- c. How does mental ability scales differ from IQ test?
- d. What are social skills? Describe four causes of weak social skills.

Q. No. 8

- a. Moiz and Mair share a lottery win of Rs.2000 in the ratio of 1:4. Moiz then share this part between himself, his wife and their son in the ratio 4:5:1. How much more does his wife get over his son?
- b. A farmer keeps hens and rabbits on his form. One day he counted the total of 70 heads and 196 legs. How many more hens than rabbits does he have?
- c. What is a polygon? Describe different types of regular polygon.
- d. In a certain code computer is written as FRUVQNPC. How will medicine be written in code language?

We wish you good luck for CSS-2022 !