



National Officers Academy
Mock Exams for CSS-2021
October Mocks
GENERAL KNOWLEDGE-I
(GENERAL SCIENCE AND ABILITY)

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

SUBJECTIVE PART — PART-II
SECTION-I

Q No. 02

- a. What is global warming? How is the current pandemic scenario affecting it?
- b. Differentiate between the following:
 1. Haze and Smog
 2. Covid-19 and SARS-CoV-2
 3. Renewable energy resources and non-renewable energy resources
- c. Explain the structure of an eye.
- d. Vitamins are one of the essential nutrients for human growth. Discuss various types of Vitamins and their benefits.

Q No. 03

- a. What is an acid rain? Discuss the cause of its formation and impacts.
- b. What do you mean by Ceramics? Briefly explain the usage and applications of ceramics.
- c. Discuss the difference between an animal and a plant cell?
- d. Explain the structure of Proteins.

Q No. 04

- a. Which city of the world first established the solid waste removal system? What are the modern techniques of municipal solid waste management?
- b. Define Chemical Bonding. Draw a comparison between covalent bond and a coordinate covalent bond.
- c. What is Fibre Optics? State different types of Optical fibres and the principles incorporated in their working.
- d. What is an avalanche? Discuss its types.

Q No. 05

- a. What is an Artificial intelligence Network? What are the ethical dilemmas/challenges associated with AI?
- b. Explain the formation of Solar and Lunar Eclipse.
- c. What are the different types of a network? Explain each briefly.
- d. Discuss the importance of preservatives and anti-oxidants.

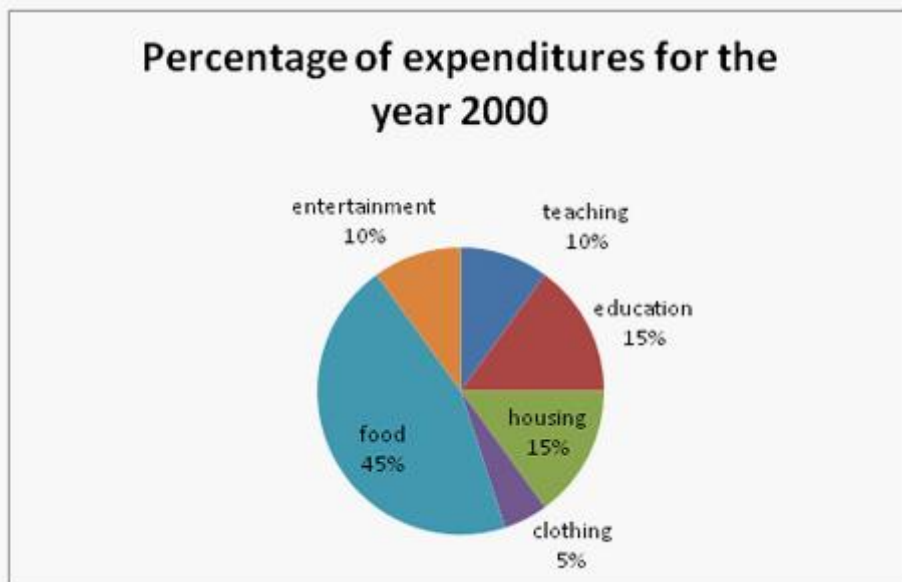
SECTION-II

Q. No. 6

- (A) A bike cost \$200 but is reduced by 30% in a sale. How much is the bike reduced by? What does it cost in the sale?
- (B) A woman dies leaving a husband, a son, and three daughters. She also leaves a bequest consisting of $\frac{1}{8} + \frac{1}{7}$ of her estate to a stranger. She leaves \$224,000. Calculate the shares of her estate that go to each of her beneficiaries under Islamic Law.
- (C) 3 men or 4 women can finish a task in 43 days. How long will 7 men and 5 women take to finish the same task?
- (D) A child is looking for his father. He went 90 meters in the East before turning to his right. He went 20 meters before turning to his right again to look for his father at his uncle's place 30 meters from this point. His father was not there. From here he went 100 meters to the North before meeting his father in a street. What is the smallest distance between the starting point and his father's position?

Q. No. 7

The breakdown of average monthly expenditure for a family is given in the following figure:



- (A) If the total amount that was spent in the year 2000 was Rs. 50000, how much amount was spent on food?
- (B) If the family spends Rs. 8000 on teaching, how much in the family's total expenditure?
- (C) Entertainment comprises of trips, movies and sports activities in the ratio of 3 : 4 : 1. Calculate how much family spends on movies each month if the monthly income is Rs. 70,000.
- (D) Approximately what fraction of the family's monthly expenditure do 'food', 'housing' and 'clothing' represent?

Q. No. 8

- (A) T, Q, R, W and E are sitting in a straight line. T sits between Q and R. W do not sit in the middle and is the immediate left of E. Q and E occupy the extreme positions. Find the position of W with reference to R.
- (B) In a triangle ABC, angle A - angle B = 30° , angle B - angle C = 15° . Find angle A?
- (C) Look at this series: 2SCD, 4TEF, 12UGH, _____. What should fill the blank?
- (D) In a certain code language, if FRAGRANCE is written as SBHSBODFG, how will IMPOSING be written in that code language?

Best of Luck for CSS-2021