

CSM – 5/21
Compulsory Paper – V
General Studies – II

Time : 3 hours

Full Marks : 300

The figures in the right-hand margin indicate marks.

*Answer **all** questions.*

Answer the following questions in about **150** words each :

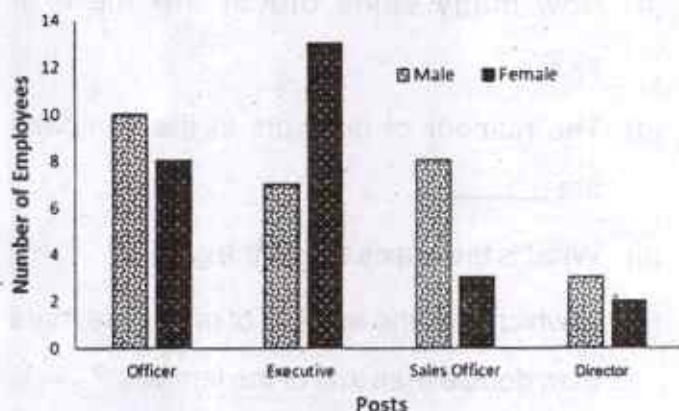
1. Justify India's neutrality over the Ukraine invasion by Soviet Russia. 10
2. Examine the Nuclear Energy Policy of India. 10
3. Discuss the structure and functions of World Trade Organisation (WTO). What is the dispute settlement mechanism under WTO? 10

4. Justify the replacement of the erstwhile Planning Commission by the NITI Aayog by the Government of India. To what extent has the NITI Aayog been successful ? 10
5. Examine the consequences of Russian-Ukraine war on worldwide economy. 10
6. Discuss the conventional and advisory jurisdictions of the International Court of Justice (ICJ). 10
7. What do you mean by Stealth Technology ? How it can be a support to our defense system ? 10
8. With a significant description of Nano fluid, mention why it is used as heat exchanger for new technologies to enhance heat transfer. 10
9. In a sample study about the coffee habits in two towns, the following data are observed : 10
Town A : 55% people are males, 40% are coffee drinkers and 28% are male coffee drinkers.

Town B : 65% people are males, 45% are coffee drinkers and 35% are male coffee drinkers.

Tabulate the above observations.

10. Look at the graph provided below. It pertains to the number of males and females working in a company in different posts :



Try to answer the following questions based on the graph drawn above : $1 \times 10 = 10$

- (a) What is the name of this diagram ?
- (b) In which post the number of females are more than the males ?

- (c) Which are the posts in which more than six males are working ?
- (d) In which post the females are more than 50 percent of the corresponding males ?
- (e) What is the number of female officers ?
- (f) How many sales officer are there in all ?
- (g) The number of directors in the company are _____.
- (h) What is the Y-axis title of the graph ?
- (i) In which post the number of males are more than double than that of the females ?
- (j) Exactly 10 number of employees is in which post and for which gender ?

Answer the following questions in about **250** words each :

11. Discuss the challenges faced by India to its territorial integrity. 20

12. Explain the opportunities before India as leader of G-20. 20
13. Give a brief outline of Odisha's macroeconomic performance in terms of growth of GSDP in the post reform period. Comment on the distributional aspect of the growth across regions. 20
14. What is a Free Trade Agreement (FTA) ? How many FTAs is India part of and who are the partners ? Discuss the major issues relating to India's FTAs. 20
15. Highlight the Indo-US relations in the changing geo-political scenario. Discuss the nuances between the relation of two countries. 20
16. How does India see its place in the economic space of rising natural resource rich Africa ? Discuss. 20
17. How biogas energy source alleviates two major environmental problems simultaneously ? With a

short note, describe the working of a biogas plant mentioning various steps followed for generation of the electricity. 20

18. With unique inheritance characteristics and general working of a laser, enumerate its application in communication technology for the present digital era. 20

19. Consider the data provided below. Construct the frequency table for the data and find the number of observations in the data set which is less than 50. Also, draw the frequency polygon of the frequency table (use a graph paper): 20

76, 96, 26, 97, 88, 89, 27, 15, 17, 29, 66, 43, 89, 56, 20, 80, 94, 86, 26, 24, 85, 94, 20, 29, 71, 33, 84, 15, 25, 52, 46, 43, 29, 93, 66, 36, 83, 98, 27, 94, 15, 35, 23, 89, 70, 57, 75, 73, 57, 89, 98, 85, 25, 19, 27, 96, 76, 30, 89, 84, 28, 57, 93.

20. In calculating the premium payable for life insurance policies, the insurance company uses the following mortality table : 20

Age in years	No. of persons surviving
0	1000
25	958
45	905
65	608
75	550

Find the probability that a person of age 25 will :

- (a) Attain the age of 45 years
- (b) Not attain the age of 75 years
- (c) Die before completion of 45 years
- (d) Live more than 65 years
- (e) Shall die between 65 to 75 years

