GOVERNMENT GENERAL DEGREE COLLEGE, SALBONI

ADD ON COURSE ON

Mathematics for Competitive Examination

ORGANIZED BY

DEPARTMENT OF MATHEMATICS

IN ASSOCIATION WITH

IQAC, GOVERNMENT GENERAL DEGREECOLLEGE, SALBONI

COURSE TITLE: Mathematics for Competitive Examination

COURSE DURATION: 30 HOURS   November, 2023

COURSE OFFERED BY: **Department of Mathematics,**

GGDC, SALBONI

PARTICIPATING TEACHERS:

1. **Shaoli Nandi (Assistant Professor)**

2. **Dr. Sunirmal Kundu (Assistant Professor)**

COURSE COORDINATOR: **Dr. SUNIRMAL KUNDU (8900099930)**

JOINT COURSE COORDINATOR: **SHAOLI NANDI**

SYLLABUS:

1) Numbers and reacted problems   2) HCF & LCM   3) Decimal and Fractions

4) Simplification   5) Square and Cube roots   6) Average

7) Surds and Indices   8) Problems on Ages   9) Percentage

10) Simple and Compound interest   11) Profit and Loss   12) Ratio and Proportion

13) Partnership   14) Boats and streams   15) Time and work

16) Time and distance   17) Problems on trains   18) Geometry

19) Miscellaneous

SCHEDULE OF CLASS

Date	First Half (11 A. M. to 12.30 P.M.)	Second Half (1.00 P. M. to 2.30 P.M.)
2.11.2023	Numbers and reacted problems(S. N.)	HCF & LCM (S. K.)
3.11.2023	Decimal and Fractions(S. K.)	Simplification(S. N.)
6.11.2023	Square and Cube roots(S. N.)	Average(S. K.)
7.11.2023	Surds and Indices(S. K.)	Problems on Ages(S. N.)
8.11.2023	Simple and Compound interest(S. N.)	Percentage(S. K.)
9.11.2023	Profit and Loss (S. K.)	Ratio and Proportion(S. N.)
10.11.2023	Partnership(S. K.)	Boats and streams(S. N.)
11.11.2023	Time and work(S. N.)	Geometry(S. K.)
18.11.2023	Time and distance(S. N.)	Problems on trains(S. K.)
21.11.2023	Geometry(S. N.)	Miscellaneous(S. K.)
22.11.2023	Written examination	Viva

MODULES:

UNIT- I

Fundamental mathematical operations: Percentages, Ratio and Proportion, Square roots, Averages, Interest (Simple and Compound), Profit and Loss, Discount, Partnership Business, Mixture and Allegation, Time and distance, Time and work.

UNIT- 2

Number System: Relationship between numbers, Computation of Whole Number & Decimal and Fractions.

UNIT- 3

Algebra: Basic algebraic identities of School Algebra and Elementary surds (simple problems) and Graphs of Linear Equations.

UNIT- 4

Geometry: Familiarity with elementary geometric figures and facts, Triangle and its various kinds of centers, Congruence and similarity of triangles, Circle and its chords, tangents, angles subtended by chords of a circle, common tangents to two or more circles.

PROGRAMME OUTCOME:

After completion of the course, students will be able to:

- Get equipped with skills to analyze problems, formulate a hypothesis, evaluate and validate results, and draw reasonable conclusions thereof.

- Acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethical issues in various socio-economic fields.

- Establish themselves in various good professional positions all over the country and secure a successful future.

- Create awareness to become an enlightened citizen with commitment to deliver one's responsibilities within the scope of bestowed rights and privileges.

- Assist future aspirants in preparing (personal guidance, books) for all types of competitive exams.

COURSE OUTCOME:

The objective of the course is to introduce the students:

CO-1: The basic knowledge about mathematics assuming that the students have minimal knowledge to the subject.

CO-2: Skills to be acquired in solving quantitative aptitude by simple methods (mainly based on demonstration).

CO-3: The ability of being engaged in pair work during class time.

CO-4: The main focus of the students will be on quantitative aptitude in short span of time.

CO-5: A platform for building the fundamentals of basic mathematics for competitive examinations preparation strategy.

CO-6: A way to establish a framework to acquire knowledge and expertise necessary to secure employment opportunities in the Government sector.

MODE OF EVALUATION:

After the completion of course, Written examination will be taken for 60 Marks, and Viva (20 Marks) will be conducted. On the basis of marks obtained in written examination, viva and attendance (20) the results will be prepared on the full marks 100.