

ANNEXURE-III

SCHEME AND SYLLABUS FOR THE POST OF FOREST BEAT OFFICERS IN FOREST DEPARTMENT (EFS&T)

Scheme of Examination

Written Examination (Objective Type)	No. of Questions	Duration (Minutes)	Maximum Marks
Paper. I. General Knowledge	100	90	100
Paper. II. General Mathematics	100	90	100
		Total	200

Syllabus

Paper. I: General Knowledge (SSC Std.)

- 1. Current affairs.
- 2. General Science in everyday life.
- 3. Environmental Issues and Disaster Management.
- 4. Geography and Economy of India and Telangana.
- 5. Indian Constitution: Salient Features.
- 6. Indian Political System and Government.
- 7. Modern Indian History with a focus on Indian National Movement.
- 8. History of Telangana and Telangana Movement.
- 9. Society, Culture, Heritage, Arts and Literature of Telangana.
- 10. Policies of Telangana State.
- 11. Ethics, Sensitivity to Gender and weaker sections, social awareness

Paper.II: GENERAL MATHEMATICS (SSC Std.,)

ARITHMETIC: Number System-Natural numbers, Integers, Rational and Real numbers, Fundamental operations, addition, subtraction, multiplication, division, Square roots, Decimal fractions.

Unitary method-time and distance, time and work, percentages, applications to simple and compound interest, profit and loss, ratio and proportion, variation.

Elementary Number Theory – Division algorithm. Prime and composite numbers. Tests of divisibility by 2,3,4,5,9 and 11. Multiples and factors. Factorisation Thorem. H.C.F. and L.C.M. Euclidean algorithm. Logarithms to base 10, laws of logarithms, use of logarithmic tables.

ALGEBRA: Basic Operations, simple factors, Remainder Theorem, H.C.F., L.C.M. Theory of polynomials, solutions of quadratic equations, relation between its roots and coefficients (Only real roots to be considered). Simultaneous linear equations in two unknowns – analytical and Graphical solutions. Simultaneous linear inequations in two variables and their solutions. Practical problems leading to two simultaneous linear equations or inequations in two variables or quadratic equations in one variable and their solutions. Set language and set notation, Rational expressions and conditional identities, laws of indices.

TRIGONOMETRY: Sine x , Cosine x , Tangent x when $0^\circ < x < 90^\circ$ values of $\sin x$, $\cos x$ and $\tan x$, for $x = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90° .

Simple trigonometric identities.

Use of trigonometric tables.

Simple cases of heights and distances.

GEOMETRY: Lines and angles, Plane and plane figures, Theorems on (i) Properties of angles at a point, (ii) Parallel lines, (iii) Sides and angles of a triangle, (iv) Congruency of triangles, (v) Similar triangles, (vi) Concurrence of medians and altitudes, (vii) Properties of angles, sides and diagonals of a parallelogram, rectangle and square, (viii) Circles and its properties including tangents and normals, (ix) Loci.

MENSURATION: Areas of squares, rectangles, parallelograms, triangle and circle. Areas of figures which can be split up into these figures (Field Book), Surface area and volume of cuboids, lateral surface and volume of right circular cones and cylinders, surface area and volume of spheres.

STATISTICS: Collection and tabulation of statistical data, Graphical representation frequency polygons, histograms, bar charts, pie charts etc. Measures of central tendency.