

भर्ती परीक्षा हेतु पाठ्यक्रम
[पद-उप अभियंता (सिविल)]
लोक स्वास्थ्य यांत्रिकी विभाग

कुल अंक-100

भाग-I
सामान्य अध्ययन (अंक- 25)
कुल प्रश्न 25 प्रत्येक 01 अंक

अ. सामान्य ज्ञान

अंक- 10

1. हाई स्कूल स्तर तक का सामान्य विज्ञान
2. हाई स्कूल स्तर तक का भारत का भूगोल
3. हाई स्कूल स्तर तक का सामान्य गणित
4. सम सामायिक राष्ट्रीय महत्व के घटनाक्रम
5. खेल-राष्ट्रीय स्तर की खेल पर सामान्य प्रश्न
6. सामान्य बौद्धिक योग्यता-हाई स्कूल स्तर तक का विश्लेषण एवं तार्किक योग्यता

ब. छत्तीसगढ़ का सामान्य ज्ञान

अंक- 15

1. छत्तीसगढ़ का इतिहास, स्वतंत्रता आंदोलन में छत्तीसगढ़ का योगदान
2. छत्तीसगढ़ का भूगोल, जलवायु, जनगणना, पुरातत्विक, दार्शनिक एवं पर्यटन स्थल
3. छत्तीसगढ़ का साहित्य, कला एवं संस्कृति, मुहावरें, हाना, एवं लोकोक्तियां
4. छत्तीसगढ़ की जनजातियां, बोली/भाषा, विशेष परम्परायें तीज, व्यंजन/पकवान, पर्व एवं त्यौहार
5. छत्तीसगढ़ की अर्थव्यवस्थावन, कृषि एवं वर्षा
6. छत्तीसगढ़ का प्रशासनिक ढांचा, स्थानीय शासन एवं पंचायतीय राज तथा स्थानीय खेलकूद
7. छत्तीसगढ़ में उद्योग, उर्जा, जल एवं खनिज संसाधन
8. छत्तीसगढ़ की सम सामायिक घटनायें

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भाग-II
इंजीनियरिंग (अंक-75)
कुल प्रश्न 75 प्रत्येक 01 अंक

(1) Building Materials

Bricks:- Types, Indian standard Classification, absorption, saturation, factor. strength in masonry, influence of mortar strength on masonry strength.

Cement:- Compounds of different type, setting times, strength.

Cement Mortar:- Ingredients, proportions, water demand, mortars for plastering and masonry

Concrete:- Importance of W/C Ratio, Strength, ingredients, including admixtures, work ability, testing for strength, elasticity, non-destructive testing, mix design methods.

(2) Structural Analysis:-

Analysis of determinant structures-different methods including graphical methods, Analysis of indeterminate skeletal frames, moment distribution, slope deflection, stiffness and force methods, Muller-Breslau principle of application:

(3) Design of steel structures:

Principles of working stress method. Design of connections, simple member, Built-up section and frames, Design of industrial roofs.

(4) Design of Concrete and masonry Structures:

Working stress method of R.C. members

Principles of prestressed concrete design, materials structures.
design of simple members and determinant structure.

(5) Construction practice, planning and management:

Concreting Equipment Weight Batcher,

Mixtures, vibrator, concrete pump.

Cranes, hoists, lifting equipment.

Earth work equipment

Power shovel, hoe, dozer, dumper, trailers and rollers foot sheep foot rollers pumps

(6) Soil mechanics.

Properties of soil, Classification and interrelationship, Compaction behavior, methods, of compaction. Permeability and seepage, flow nets, inverted filters, Compressibility and consolidation shearing resistance, stresses and failure: soil testing in laboratory and Institution.

(7) Surveying

Classification of surveys, scales, accuracy, Measurement of distance direct and indirect methods: optical and electronic devices. Measurement of direction prismatic compass: local attraction, theodolites-types: measurement of elevations- Spirit and trigonometric leveling.

(8) Transportation Engineering,

Planing of Highway systems, alignment and geometric design; highway materials, highway pavements, highway construction.

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(9) Public Health Engineering: (Sanitation and Water supply)

- VIII. Topics in the current manuals on water supply and sanitation Engineering published by the central public Health Engineering and Environmental Organization government of India.
- IX. P.H.E.Department Specification and practices.
- X. Water supply and sanitation conditions in c.g. with special reference to the C.G.Government policies about urban/rural water supply/sanitation programmes.
- XI. Specials programmes in execution with the assistance of other nations and international organization, world bank etc.
- XII. Several types of drilling rigs in the department, The types of hand pumps are use in rural areas and the procedure for their maintenance.
- XIII. Government rules for maintenance of water works, practices in maintenance of water works and sewage including distribution, metering, billing, revenue collection, quality control etc

(10) General:

- VI. Survey for project preparation with special reference to chain survey, compass survey, leveling, contouring. G.T.S. bench marks, top sheet, Recording of survey data in level books, field books, etc
- VII. Provisions made in the nationalbuilding code published by the Indian Standard institution
- VIII. Standard Specification, schedule of rates enforced in the Department and estimating procedure
- IX. Quality Standard and field/laboratory testing Procedure for items like cement, sand, metal, bricks, concrete etc.
- X. P.E.R.T. and C.P.M. Techniques

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