UPPSC Mines Inspector Syllabus 2023 & Exam Pattern

UPPSC Mines Inspector Syllabus For General Hindi

- विलोम
- तत्सम एवं तद्भव शब्द
- विशेष्य और विशेषण
- उपसर्ग-प्रत्यय
- वचन
- लिंग
- प्रत्यय
- संधि
- समास
- रस
- पर्यायवाची शब्द
- मुहावरे एवं लोकोक्तियाँ
- वाक्य एवं वर्तनी-शुद्धि
- पर्यायवाची शब्द
- सन्धि एवं समास
- अनेक शब्दों (वाक्यांश) के लिए एक शब्द

UPPSC Mines Inspector Syllabus For General Study

- History of India
- Indian Agriculture, Commerce & Trade
- Logic & Reasoning based on General Intelligence
- General Science (High School Standard)
- Indian National Movement
- Indian Polity, Economy & Culture
- World Geography & Indian Geography & Natural resources of India
- Current National and International Important events
- Elementary Mathematics up to 8th level:- Arithmetic, Algebra and Geometry
- Ecology and Environment
- Specific knowledge regarding Education, Culture, Agriculture, Industry Trade, Living & Social Traditions of Uttar Pradesh

UPPSC Mines Inspector Syllabus For Mining Engineering

Mining Geology and Economic Geology

- Structural geology: Dip and strike, folds, faults, joints, joint sets.
- Stratigraphy: Geologic time scale, classification of Indian rock formations, fossils and their uses.

- Economic geology: Origin of coal, classification of Indian coals.
- Physical Geology: Constitution of earth's interior, earthquake and volcano, weathering.
- Mineralogy: Physical properties of minerals, identification of minerals, Mohs scale of hardness.
- Petrology: Basics of igneous, sedimentary and metamorphic rocks.
- Indian coal deposits, classification of ore deposits, Indian mineral wealth, mineral prospecting, and sampling methods.

Mine Surveying

- Principles of surveying
- Distance measurement techniques
- Superelevation
- Chain surveying
- Computation of area and volume
- Underground surveying principles
- Curve fitting
- Correlation surveying
- Levelling instrumentation and techniques
- Theodolite-principle, construction, surveying methods

Mining Technology

- Modes of entry to the surface and underground mines
- Methods of mining of coal and metalliferous deposits
- Roof support- Types and techniques, systematic support rules
- Shaft sinking- methods, shaft lining
- Drilling and blasting-Drilling techniques, cut holes, explosives, detonators, blasting practices, blasting accessories, misfire and its handling
- Mine lighting-Cap lamp, lamp room, electric lamps, mine lighting techniques

Mine Transport and Machinery

- Transportation systems in opencast and underground mines
- Mine pumps
- Opencast and underground mines machineries-characteristic features and applicability

Rock mechanics and ground control

- Mine subsidence parameters and their significance
- Ground control-Stowing methods
- Pit slope- parameters and stability
- Physico-mechanical properties of rocks and their estimation
- Rock Mass Classification

Heat and Humidity

- Dry-bulb and wet-bulb temperatures (DBT and WBT)
- Sources of heat in underground mines
- Terminologies related to humidity
- Effect of heat and humidity. Effect of air velocity

Surface Mine Environment

- Mine noise-Terminology, effects of noise, sources of noise generation and control, noise standards
- Water pollution-Classification of waste, biochemical oxygen demand (BOD), chemical oxygen demand (COD)
- Surface mine fires
- Basics of EIA and EMP
- Air pollution-Primary/secondary air pollutants, acid rain, global warming, greenhouse effect, ozone layer depletion

Underground Mine Environment and Ventilation

- Mine gases- Properties and detection, mine damps
- Flame safety lamps-Constructional features, safety features, application
- Mine explosions-Causes and precautions against firedamp and coal dust explosions, Cowards diagram
- Natural ventilation-Causes, NVP
- Underground mine fires- Causes, prevention & control, detection of the spontaneous heating, incubation period.
- Mechanical ventilation-Axial-flow/centrifugal fans, forcing/exhaust fans, auxiliary/booster fans
- Splitting of air current
- Laws of airflow, airpower, my characteristic curve
- Standards of ventilation
- Ventilation survey-Instrumentation and procedure
- Ventilation control devices, air-crossing, volumetric efficiency quotient (VEQ)

Mine Rescue and Recovery

- Mine rescue-Apparatus and operation. Rescue rules
- Mine recovery-Procedure

Mine Legislation and Safety

- Mine legislation-Mines Act, Mines Rules, Coal Mines Regulations, Workmen's Compensation Act
- Mine safety-Accidents in mines and their prevention. Occupational diseases

UPPSC Mines Inspector Exam Pattern 2023 Prelims and Mains

The UPPSC Mines Inspector selection is based on Prelims Exam, Mains Exam and Interview. Exam patterns for the prelims and mains exams are given below.

Prelims Exam Pattern

- Total Question: 150
- Total Marks: 300
- Total Time: 02 Hours
- Correct Answer: 02 Marks
- Negative Marking: Yes(1/3 Marks)

Sub	Que/ Marks
General Studies	25/50
General Hindi	25/50
Mining Engineering	100/200
Total	**150/300**

Mains Exam Pattern

- Total Question: 08
- Total Marks: 200
- Total Time: 03 Hours
- Correct Answer: 40 Marks
- प्रश्न संख्या 1 अनिवार्य होगा और प्रत्येक खंड के लिए 2 प्रश्नों का प्रयास करना भी अनिवार्य होगा। 5 प्रश्नों का प्रयास करना अनिवार्य है।