FIELD VISIT REPORT

NANDHA MEDICAL COLLEGE
AND HOSPITAL, ERODE

10.03.2024

DEPARTMENT OF CIVIL ENGINEERING

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About NMCH

Nandha Medical College and Hospital is an excellent well-equipped hospital that offers high quality medical care to men, women and children. An impressive state-of-the-art building houses their medical centre well backed by the best of medical infrastructure and medical professionals.

Roof slab - Reinforcement

Roof slab reinforcement work was being done on the day of visit. Electrical fittings were also done simultaneously. The type of slab used in a building project depends on various factors including the span, load requirements, architectural design, and available materials. The most common types of slabs are

Both one way and two way slabs were reinforced on the day of visit. Students were able to differentiate tension and compression reinforcement. The conditions which demand extra reinforcement were also discussed.

Tension reinforcement:

Tension reinforcement is essential for ensuring the safe and efficient performance of concrete structures, as it helps control cracking, increase load-carrying capacity, and improve overall structural stability.

Torsion reinforcement:

Torsion reinforcement is essential in concrete structures subjected to twisting or torsional forces. These forces can occur in various structural elements, such as beams, slabs, and columns, due to factors like eccentric loading, seismic activity, or wind loads.

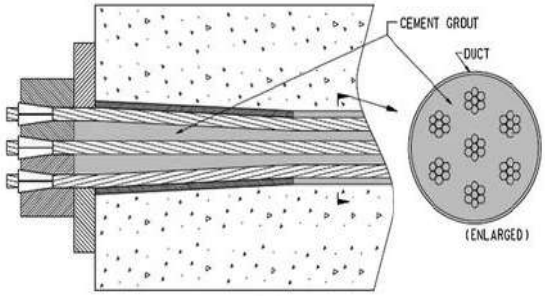
Shuttering:

Shuttering refers to the temporary formwork or molds used to support and shape concrete until it sets or cures. The purpose of shuttering is to provide the necessary support and containment for the concrete while it gains sufficient strength to support its own weight and any additional loads it will bear once the structure is complete. Once the concrete has hardened, the shuttering is removed, leaving behind the desired shape of the concrete element.

PT (Post Tensioned) Beams

Post tensioned beams are used in the roof. A post-tensioned beam is a structural element commonly used in building construction to support loads and span distances. It is a reinforced concrete beam that has been pre stressed using high-strength steel tendons or cables that are tensioned after the concrete has cured. Post-tensioned beams offer several advantages over traditional reinforced concrete beams, including:

- Increased Strength and Efficiency
- Reduced Cracking
- Flexibility in Design
- Construction Speed



III year Civil Engineering students at NMCH on 10.03.2024

Outcome:

At the end of the visit, students were able to gain knowledge on

(i) The types of reinforcement in RCC elements
(ii) Shuttering techniques
(iii) PT (Post Tensioned) beams with tendons

POs & PSOs Mapped:

PO1, PO5, PO6, PO7, PO11, PO12 ***PSO3, PSO4***