



POORNIMA

INSTITUTE OF ENGINEERING & TECHNOLOGY

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A
Workshop
Report
On
Civil Engineering Material & Equipment



Organized by

DEPARTMENT OF CIVIL ENGINEERING, PIET

Dr. Divya Prakash
Event Co-ordinator

Dr. Pran Nath Dadhich
(HOD Department of Civil)



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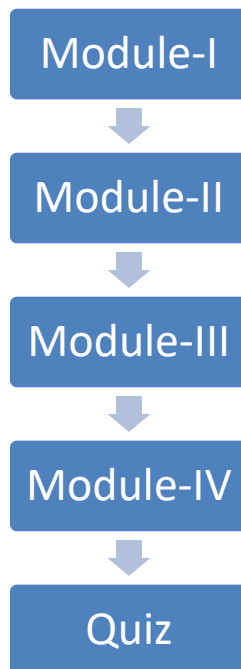
❖ OBJECTIVE

The **objective of the workshop** was to provide exposure to the faculty and students of Department of **Civil Engineering** about the current industry expectations from fresh **civil Engineers**.

❖ **About the Workshop**

The workshop titled Civil Engineering Materials and Equipments (CEME-2019) was organized for B.Tech II year/ III Sem from 11/09/2019 to 13/09/2019. The workshop was divided into four modules as following. In this workshop **44** students are participate.

- Module-I** :- Construction materials and equipments
- Module-II** :- Specification of architectural & Structural drawing
- Module-III** :- Introduction of bonds in bricks masonry
- Module-IV** :- Construction of Bricks wall
- Assessment** :- Exam on the basis of Modules





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❖ Module I

Module I was taken by Mr. Sumit Kumar Sharma on “**Construction materials and Equipments**”. He covered many topics in the LECTURE and they are as follows:

➤ **Construction Materials**

In this topic he briefly discussed about construction materials and their market prices (present at this time) and local availability of materials locally in Rajasthan like: Sand, Gravel-20mm and 40mm, Cement and its type (OPC and PPC), Stones, Chokat, frames, Bricks and Steel.

➤ **Equipments used in construction**

Construction industry is using much type of equipments and they are as follows:
Vibrators, Mixers, Cutters, Hammers, Level Pipe, Saval and Tape.

➤ **Finishing Materials**

Wooden work
Aluminium work
Glazing work
ACP work
Stone cladding work
Floor tiles and wall tiles
CP Fitting
Bathroom accessories
POP
Fall ceiling
BIRLA white
Paint and its type



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❖ Module II

The module was taken by Mr. Sumit Kumar Sharma on “**Specification of architectural & Structural drawing**”. In this two hour lecture, he discussed about the following:

- Requirement to execute the project
- About buildings
- Sequencing of work
- Building components
- Types of drawing
- IS codes
- General notes and drawing reading

❖ Module III

The third module was on “**Introduction of bonds in bricks masonry**”. The module was taken by Mr. Sumit Kumar Sharma. The various brick bonds were demonstrated to the students and were also made to perform. The brick bonds are as follows:

- Header Bond
- Stretcher Bond
- English Bond
 - 1 Brick
 - $1\frac{1}{2}$ Brick
 - 2 Brick
 - $2\frac{1}{2}$ Brick
- Single Flemish Bond- $1\frac{1}{2}$ Brick
- Double Flemish Bond
 - $1\frac{1}{2}$ Brick
 - 2 Brick
 - $2\frac{1}{2}$ Brick

❖ Module IV



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In module IV, a brick wall was constructed. The mortar was made in the ratio of 1:6. Six walls were constructed as follows:

- Header Bond
- English Bond
 - $1\frac{1}{2}$ Brick
 - 2 Brick
- Single Flemish Bond- $1\frac{1}{2}$ Brick
- Double Flemish Bond
 - $1\frac{1}{2}$ Brick
 - 2 Brick

❖ Schedule of workshop

Module	Topic	Venue
Module-I	Construction materials and equipments	BB-34
Module-II	Specification of architectural & Structural drawing	BB-34
Module-I	Construction materials and equipments	BB-34
Module-II	Specification of architectural & Structural drawing	BB-34
Test	Module-I & II	BB-34
Module-III	Introduction of bonds in bricks masonry	Backyard
Module-IV	Construction of Bricks wall	Backyard



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Different bonds in bricks masonry

❖ Conclusion: -

The main purpose of workshop is to bring the knowledge of field and market for the students.

In module –I, students got the knowledge about the basic civil engineering material and equipments used in construction and their market prices are beneficial for them in the current semester and next semester.

As being civil engineer we have to execute the work as per the given drawing. So in module-II, students understood about the basic sequencing of the work in field for a project and also about the drawing reading on which work is to be executed.

As well as students got the knowledge about the bonds in brick masonry and applied practically on field in module-III and module- IV.

This was initiative by the department for 3rd semester students, for enhancing their skills for being a civil engineer.

Question Paper

1. Write the name of Brick bond:
2. The compressive strength of Sandstone is:
3. A good building stone is one which does not absorb more than:
4. A stone with large percentage of Quartz is:
5. The specific gravity of stone, in any case, should not be less than:
6. Major constituent of siliceous rock is:
7. Major constituent of Argillaceous rock is:
8. Major constituent of Calcareous rock is:
9. The colour of Granite is:
10. The colour of Slate is:
11. The colour of sandstone is:



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12. The colour of Limestone is:
13. The colour of Moorum is:
14. A fine grained granite:
15. A fine grained granite:
16. late in the for of tiles is used for:
17. Marble is an example of :
18. Sandstone consists of:
19. Granite is mainly composed of:
20. Gneiss is mainly composed of:
21. Slate is composed of:
22. A siliceous sandstone which has been subjected to metamorphic action:
23. Marble is mainy composed of:
24. In order to dry the quarry sap of freshly carried stone, it should be exposed t open air for a period of:
25. The compressive strength of granite is:

Evaluation Sheet

S.No	Reg. No	Name	Max Marks 20
1	PIET18CE002	AKASH KAKARWAD	10
2	PIET18CE003	AMAR GURJAR	19
3	PIET18CE004	AMARDEEP JARWAL	15
4	PIET18CE005	APIL KUMAR MEENA	AB
5	PIET18CE007	BHIM SINGH	AB
6	PIET18CE008	DEVENDAR JETHLIYA	17
7	PIET18CE009	GAJENDRA PANWAR	18
8	PIET18CE010	HARISH KUMAR	16
9	PIET18CE012	JAYA RATHORE	15
10	PIET18CE013	KHUSHBOO MEENA	AB
11	PIET18CE014	KOMAL CHHABBARWAL	13
12	PIET18CE015	LAVISH KAMALDHWAJ	14



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13	PIET18CE016	MANISH SHARMA	11
14	PIET18CE017	MEENA SACHIN	15
15	PIET18CE018	MOHIT KUMAR MEENA	16
16	PIET18CE019	NARPAT SINGH	17
17	PIET18CE100	NAVARATAN TANWAR	18
18	PIET18CE506	NOUMAN NOOR RATHER	AB
19	PIET18CE020	PIYUSH ROAT	16
20	PIET18CE511	PRANAV KHAJURIA	14
21	PIET18CE021	PRAVEEN KUMAR SHARMA	12
22	PIET18CE022	PUNIT YOGI	13
23	PIET18CE023	RAFIQ BAHLEEM	AB
24	PIET18CE024	RAGHAV GUPTA	9
25	PIET18CE025	RAJ SHARMA	8
26	PIET18CE026	RAJAT SINGH RAJAWAT	15
27	PIET18CE027	RAKESH KUMAR BENIWAL	13
28	PIET18CE028	RAM KISHOR GODARA	10
29	PIET18CE508	RANJEET THAKUR	12
30	PIET18CE509	RITAK SINGH	9
31	PIET18CE029	RITHIK SHRIVASTAVA	15
32	PIET18CE030	ROHIT SAINI	12
33	PIET18CE031	SANJEET SEHRA	16
34	PIET18CE032	SAURABH MEENA	17
35	PIET18CE101	SHIV RATAN TANWAR	18
36	PIET18CE033	SHLOK PAREEK	13
37	PIET18CE034	SUDHANSHU TANENIA	12
38	PIET18CE035	SUMIT KANCHAN	15
39	PIET18CE036	SUNIL KUMAR KUMAWAT	AB
40	PIET18CE037	SUPRATIK KATARIA	12
41	PIET18CE038	TARIQ AHMAD	15
42	PIET18CE039	TEJ PRATAP SINGH SHEKHAWAT	15
43	PIET18CE040	VARUN FAGERIA	16
44	PIET18CE041	YUVRAJ	14