



POORNIMA

INSTITUTE OF ENGINEERING & TECHNOLOGY

Affiliated to RTU, Kota • Approved by AICTE & UGC under 2(f) • Accredited by NAAC and NBA

A

Workshop

Report

On

“Importance & Application of IS Codes for Material Testing & Concrete Mix Design”



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 main objective of this workshop to selecting suitable ingredients of concrete and determining their relative amounts with the objective of producing a concrete of the required, strength, durability, and workability as economically as possible, is termed the concrete mix design.

❖ **About The Workshop**

The workshop titled “**Importance & Application of IS Codes for Material Testing & Concrete Mix Design**” was organized for B.Tech VII Sem on 29/7/2019 to 31/07/2019. The workshop was divided into two modules as following:

Module-I : - Importance & Application of IS Codes for Material Testing

Module-I : - Quiz Test

Module-II : - Concrete Mix Design

Module-II : - Exercise on Mix Design

Venue- BB-26

Time – 8 :00 am -3.00 pm

Date - 16th to 20th Nov 2018

Resource Person- Mr. Ravi Kumar Sharma

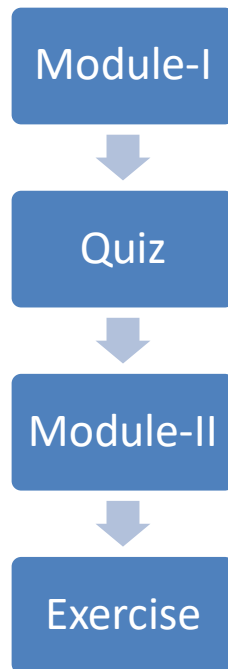
Total Number of Participants-45



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❖ Module I

Module I was taken by Mr. Manoj Dhaker on “**Importance & Application of IS Codes for Material Testing**”. He covered many topics in the LECTURE and they are as follows:

- Introduction of Construction Materials
 - Concrete
 - Aggregate
 - Cement
 - Water
 - Steel
 - Soil
 - Bricks
 - Tiles



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- IS Codes
 - IS 383-1970
 - IS:2386 Part I,II,III,IV
 - IS: 4031
 - IS : 3025 & Relevant Parts
 - IS : 10500 (For Drinking Water)
 - IS : 1786
 - IS : 2720
 - IS : 1077
 - IS : 3495

❖ Module II

The module was taken by Mr. Manoj Dhaker on “**Concrete Mix Design**”. In this lecture, he discussed about the following:

- Scope
- Introduction
- Mix Design
- Differences b/w IS10262:1982 and 10262:2009
- Exercise



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❖ Schedule of workshop

Date	Module	Topic	Venue
29-7-2019	Module-I	Importance & Application of IS Codes for Material Testing	BB-31
30-7-2019	Module-I	Importance & Application of IS Codes for Material Testing Quiz Test	BB-31
31-7-2019	Module-II	Concrete Mix Design	BB-31
31-7-2019	Module-II	Exercise on Mix Design	BB-31



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❖ Conclusion: -

The main purpose of workshop is to bring the knowledge of importance Indian standards in construction and Mix design of concrete as per updated Indian standards.

In module-I, students got the knowledge about the importance of IS codes and application in construction. Therefore all the codes related to material testing in civil engineering are discussed with example of site.

In module-II, students were taught the design procedure which usually follow in making concrete in construction industry. Discussion on the differences between old and new IS-Code especially for workability.

This was initiative by the department for 7th semester students, for enhancing their skills for being a civil engineer.



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POORNIMA INSTITUTION OF ENGINEERING & TECHNOLOGY, JAIPUR

EXERCISE ON WORKSHOP ON IMPORATANCE & APPLICATION OF IS CODES FOR MATERIAL TESTING EXAMINATION (2019-20)

Timing:-30 minute

Maximum Marks:-20

Attempts all the questions

Q. 1 to 10, 1 Marks and Q. 11 to 15, 2 Marks

(Give your answer in 3 to 4 lines)

Q.1 Describe various types of concretes?

Q. 2 Describe Factors which directly affect the compressive strength of concrete?

Q.3 Explain acceptance criteria of concrete as per IS: 456?

Q.3 Explain Coarse & Fine aggregate & also their gradation requirements as per IS: 383?

Q.5 Explain deleterious material in aggregate and permissible value?

Q.6 Describe various mechanical properties of aggregate?

Q.7 what is the permissible value of crushing value of aggregate for wearing & Non wearing Surfaces?

Q.8 what is the permissible limits of initial & final setting time of cement? (IS: 8112)

Q.9 what is the Maximum permissible value of Magnesia (% by mass) in cement? (IS: 8112)

Q. 10 what is the maximum permissible value of soundness of cement by Le-chat & Autoclave Expansion? (IS: 8112)

(Give your answer in 8 to 10 lines)

Q.11 State various Physical Properties of Structural steel (Reinforcement)?

Q.12 State the requirements of Physical Properties of Fe-415, Fe-500, Fe 550 as per IS: 1786?

Q.13 Differentiate yield (proof) stress & Ultimate Stress?

Q.12 write down expression for Net Ultimate Bearing Capacity of Soil as per IS 6403?

Q.13 Explain settlement criteria for various types of soils & foundation as per IS: 8009 Part I?

Q.14 Describe in short Core Recovery & RQD?



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Evaluation Sheet

S.No	Reg.No.	Name of Student	Max Marks 20
1	PIET16CV028	GARIMA KHANDELWAL .	15
2	PIET16CV029	GHANSHYAM MEENA .	16
3	PIET16CV030	GIRISH KUMAR SINGH .	11
4	PIET16CV031	GURUVENDRA SINGH KABAWAT .	13
5	PIET16CV066	JATIN KUMAR .	17
6	PIET16CV032	JYOTI ROY .	18
7	PIET16CV033	KAPIL SHARMA .	16
8	PIET16CV035	KHUSHBOO MEENA .	14
9	PIET16CV036	LOKESH MEENA .	10
10	PIET16CV037	LUCKY JAISWAL .	8
11	PIET16CV039	MANISH KUMAR .	9
12	PIET16CV040	MANISH SINGH .	7
13	PIET16CV103	MD. FAHMY .	16
14	PIET16CV042	MOHD. FAISHAL QURESHI	15
15	PIET16CV034	MOHIT KUMAWAT .	14
16	PIET16CV043	MOHIT MEENA .	9
17	PIET16CV045	NAITIK JANGIR .	8
18	PIET16CV044	NAMRATA GUPTA .	12
19	PIET16CV046	NIKHIL GOYAL .	16
20	PIET16CV047	NIKHIL KUMAR RAIKAROT .	15
21	PIET16CV048	NIKHIL KUMAR SINGHAL .	14
22	PIET16CV084	SURESH KUMAR CHOUDHARY .	13
23	PIET16CV086	TANISHA PUNJABI .	12
24	PIET16CV087	TARUN KUMAR MEENA .	18
25	PIET16CV095	UMESH ARYA	16
26	PIET16CV088	UTKARSH ARUN .	12
27	PIET16CV089	VASIM AKRAM .	10
28	PIET16CV090	VIDHANSHU JAISWAL .	16
29	PIET16CV091	VIJENDRA KUMAR MEENA .	12
30	PIET16CV092	VIKASH KUMAR MEENA .	11
31	PIET16CV093	VIMAL MEENA .	14
32	PIET16CV094	VISHNU NAMA .	19



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33	PIET16CV026	VISHNU SHARMA .	17
34	PIET16CV101	VIVEK KUMAR MEENA	13
35	PIET16CV096	YASH GAUTAM .	12
36	PIET16CV097	YASH KUMAR SAINI .	15
37	PIET16CV098	YASHWANT MAHALA .	16
38	PIET16CV099	YATENDER .	16
39	PIET16CV100	YOGESH KUMAR MEENA .	14
40	PIET16CV077	SHUBHAM JAGARAWAL .	12
41	PIET16CV078	SHUBHAM JUNWAL .	16
42	PIET16CV079	SHUBHAM TATAWAT .	18
43	PIET16CV080	SIDDHARTH SINGH .	13
44	PIET16CV081	SOMESH KUMAR MEENA .	12
45	PIET16CV082	SURENDRA DIDEL .	10