



# Dr.T. THIMMAIAH INSTITUTE OF TECHNOLOGY

(Estd. 1986) Oorgaum, Kolar Gold Fields, Karnataka – 563120

(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)

## INDEX

2.2.1 The institution assesses the learning levels of the students and organizes special program's for advanced learners and slow learners

Activities for Slow learners and Advanced (Fast) learners.

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**Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY**  
Oorgaam, Kolar Gold Fields, Karnataka – 563120  
(Affiliated to VTU, Belgaum, Approved by AICTE - New Delhi)

F.No:DrTTIT/IQAC/2020-21/072P

**Department of Mining Engineering**  
**CATEGORY OF STUDENTS BASED ON PREVIOUS SEM RESULTS**  
**Scheme 2017**

**Academic Year: 2020-21**

**Semester: VII**

SLOW LEARNERS		
SL.NO	USN	STUDENT NAME
1	1GV15MI073	SURYA A
2	1GV16MI014	HEMASUNDER
3	1GV16MI027	SHANTH KUMAR
4	1GV16MI037	WILLIAM
5	1GV16MI039	MURALIDHAR M R
6	1GV16MI040	MADHAN B S
7	1GV17MI001	JOHNSON LOURDU XAVIER
8	1GV17MI002	MADHALAI TITUS
9	1GV17MI007	GUNTA MADUGU CHANDU
10	1GV17MI008	CHENNA KESHAVAN
11	1GV17MI028	VENU K G
12	1GV18MI400	ARUN E
13	1GV18MI403	NAGARAJ NAYAK
14	1GV18MI405	SHIVANANDA
15	1GV18MI406	SURESH KULLUR

ADVANCED LEARNERS		
SL.NO	USN	STUDENT NAME
1	1GV15MI024	NAVIN PRASAD
2	1GV15MI067	SATHYNARAYAN
3	1GV16MI030	SUBARAJGURU
4	1GV17MI003	THEN TAMILAN
5	1GV17MI004	ARUN KUMAR B K
6	1GV17MI005	AURANGAZIB A
7	1GV17MI006	CHARAN P M
8	1GV17MI009	ARAVIND L
9	1GV17MI010	RAJESH
10	1GV17MI011	MANOJ SEEMAN S
11	1GV17MI014	PARASHURAMU PRASAD K
12	1GV17MI015	SHIVA P N
13	1GV17MI016	PRAVEEN KUMAR Y
14	1GV17MI017	REVANTH API K A
15	1GV17MI019	SAKTHIVEL D
16	1GV17MI020	SHEIKSULAIMANSATE
17	1GV17MI021	SHREEPATH R C
18	1GV17MI022	SHRISHAIL RAMAPPA KADIWAL
19	1GV17MI024	K SRINIVAS
20	1GV17MI029	VINITH KUMAR P V
21	1GV17MI032	NISHATH FATHIMA
22	1GV18MI401	GANESH
23	1GV18MI402	KRISHNARAJ S
24	1GV18MI404	PAVAN REDDY R V
25	1GV18MI407	VINAY SELVANATHAN

**Selection Criteria**

Slow learners	Percentage $\leq 60\%$
Advanced Learners	Percentage $> 60\%$

*HE*  
20/10/20  
CLASS CO-ORDINATOR

*20/10/20*  
HOD

*1/10/21*  
PRINCIPAL  
Dr. T. Thimmaiah Institute of Technology  
Oorgaam, K.G.F. - 563 120.



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F.No:DTTIT/QAC/2020-21/071AL

Department of Mining Engineering  
 Tutorial Class Attendance 2020-2021

Academic Year 2020-21

Course Name Mine System Engineering

Semester 7<sup>th</sup>

Course Code: 17MN751

SL NO.	USN	NAME OF THE STUDENT	DATES															
			27/10	3/11	10/11	01/12	8/12	15/12	5/1/21									
			NO. OF CLASSES															
1.	16V15MI073	Surya.A	1	2	3	4	5	6	7									
2.	16V16MJ014	Hemansudh	1	2	AB	3	4	5	6									
3.	16MI027	Shreshth Kumar	1	2	AB	3	AB	3	4									
4.	16MI037	William	1	2	AB	3	4	5	6									
5.	16MJ039	Muzalihtox.M.R	1	2	AB	3	4	5	6									
6.	16MI040	Madhuan.B.S	1	2	AB	3	4	5	6									
7.	17MI001	Johnson Louisa Xavier	1	2	3	4	5	6	7									
8.	17MI002	Madhurai Titus	1	2	AB	3	4	5	6									
9.	17MI007	Gunata Madhugu Chandra	1	2	3	4	5	6	7									
10.	17MI008	Chandra Kusarao	1	2	3	4	5	6	7									
11.	17MI028	Veeru.K.G	1	2	3	4	5	6	7									
12.	18MI400	Arun.F	1	2	3	4	5	6	7									
13.	18MI403	Nagaraj Jayak	1	2	3	4	5	6	7									
14.	18MI405	Shibnarada	1	2	3	4	5	6	7									
15.	18MI406	Suresh Kulkas	1	2	3	4	5	6	7									

*[Signature]*  
 PRINCIPAL

Dr. T. Thimmiah Institute of Technology  
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*[Signature]*

Course Instructor

2008/10/2021  
 HOD





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F.No:DrTTIT/IQAC/2020-21/C2/ZD/05B

Department of Mining Engineering  
Scheme 2017

Tutorial Class Time Table

Academic Year: 2020-21

Sl No.	Sub Code	Subject	Name of the faculty	Date	Timings	Faculty Signature
1	17MN72	Ground Control	Prof Raja S	Monday	3:00 PM to 4:00 PM	 24/10/20
2	17MN751	Mine System Engineering	Prof. Mahendran J	Tuesday	3:00 PM to 4:00 PM	 24/10/20

Semester: VII

  
24/10/2020

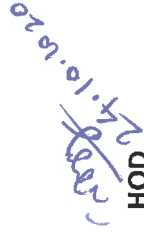
Time Table Coordinator

for



Dr. T. Thimmiah Institute of Technology  
Oorgaam, K.G.F. - 563 120.

HOD

  
24/10/2020



**VTU QUESTION PAPER**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

**CBCS SCHEME**

Roll No. \_\_\_\_\_

Page No. \_\_\_\_\_

**Third Semester B.E. Degree Examination, Jan./Feb. 2021  
Digital System Design**

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

**Module-1**

- 1 a. Define the following terms with example:  
i) Lateral ii) Minterm iii) Sumterm iv) Product of sum v) Canonical sum of products (05 Marks)
- b. Reduce the following function using K-map technique and implement using NAND gates only:  
 $f_1(P, Q, R, S) = \sum m(0, 1, 4, 7, 8, 9, 10) + d(2, 3, 11)$   
 $f_2(A, B, C, D) = \sum m(0, 2, 4, 10, 11, 14, 15)$  (10 Marks)
- c. Reduce the following function using K-map and implement using NOR gate only:  
 $f_1(A, B, C, D) = \sum m(0, 5, 7, 8, 10, 13) + d(2, 4, 14, 15)$  (05 Marks)

**OR**

2. Reduce the following function using Quine - McClusky method and shall all the tables including Reduced prime implicant table.  
 $Q_1 = f(a, b, c, d, e) = \sum (1, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 23, 26, 27)$  (10 Marks)

**Module-2**

- 3 a. Implement the following multi-output function using single 74LS138 (3 to 8 decoder) and external gates.  
 $F_1(A, B, C) = \overline{AB} + \overline{ABC} + AC$   
 $F_2(A, B, C) = \sum m(2, 3, 6, 7)$  (04 Marks)
- b. Implement the following function:  
i)  $f_1(A, B, C, D) = \sum m(0, 2, 6, 10, 11, 12, 13) + d(3, 8, 14)$  using 74LS151 (8 to 1 MUX) considering lower order inputs as select inputs. (04 Marks)
- ii)  $f_2(A, B, C, D) = \sum m(0, 2, 3, 4, 6, 7, 9, 11, 13, 15)$  using 74LS151 (4 to 16 MUX) considering higher order inputs as select inputs. (06 Marks)
- c. Develop the following combinational logic:  
i) Construct full subtractor using 74LS153  
ii) Construct 4-to-16 decoder using 2-to-4 decoders only. (08 Marks)

**OR**

- 4 a. Draw the full Adder ckt from truth table. Construct a four bit adder and explain it. (06 Marks)
- b. Draw a 1 bit comparator and explain. (04 Marks)
- c. Develop a look ahead carry adder from full adder. Draw the complete structure including look ahead carry generator and final Adder. (10 Marks)

**Module-3**

- 5 a. Analyze the application of SRFF as switch debouncer with waveforms. (04 Marks)
- b. Explain the working principles of gated SR latch with truth table next state table, excitation table and characteristic equation. (06 Marks)
- c. Draw the Master - Slave JK flip-flop and explain its working. Draw the truth table, what is race around condition? How it can overcome? (08 Marks)

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### MODULE WISE QUESTION BANK

3rd Semester

Subject Name: Discrete Mathematical Structures

Subject code: 18CS36

#### Question Bank

##### Module 1

1. Define the following with an example for each: (i) Proposition (ii) Tautology (iii) Contradiction (iv) Duality principle

2. Justify the following using laws of logic:

$$(p \rightarrow q) \wedge [\neg q \wedge (r \vee \neg q)] \text{ equivalent to } \neg(q \vee p)$$

3. Determine the truth value for the following, if p, q, r have the 0, 0 and 1 as truth values:

$$p \rightarrow (q \wedge r)$$

$$p \rightarrow (q \rightarrow \neg r)$$

4. Show that

$$i) \{(p \vee q) \rightarrow r\} \leftrightarrow \{\neg r \rightarrow \neg(p \vee q)\} \text{ is tautology or contradiction}$$

5. Prove using laws of logic

$$p \rightarrow (q \rightarrow r) \text{ biconditional } (p \wedge q) \rightarrow r$$

$$p \rightarrow (q \wedge r) \text{ biconditional } (p \rightarrow q) \wedge (p \rightarrow r)$$

6. Test the validity of the foll:

$$(p \rightarrow q) \wedge (q \rightarrow (r \wedge s)) \wedge (\neg r \rightarrow (\neg t \vee u)) \wedge (p \wedge t) \text{ therefore } u$$

7. Prove if k and l are odd numbers, then k+l is even

8. Explain Quantifiers and open statement with example

9. Using Inference rules, prove the following

$$\text{For all } x, (p(x) \vee q(x))$$

$$\text{For all } x, (\neg q(x) \vee r(x))$$

$$\text{For all } x, (s(x) \rightarrow \neg r(x))$$

Therefore,  $\neg p(x)$  therefore there exists,  $\neg s(x)$

10. Define dual of a logical statement. Verify the principle of duality for.

$$[\neg(p \wedge q) \rightarrow \neg p \vee (\neg p \vee q)] \text{ equivalent to } (\neg p \vee q)$$

11. Show that  $(p \vee q) \wedge \{(p \rightarrow r) \wedge (q \rightarrow r)\} \rightarrow r$  is tautology or contradiction

12. Test the validity of the foll:

$$((\neg p \vee q) \rightarrow r) \wedge (\neg s \wedge \neg u) \wedge (r \rightarrow (s \vee t)) \wedge (\neg u \rightarrow \neg t)$$

therefore p

13. Find the negation of the following quantified statement.

$$(i) \quad x, y, [(p(x,y) \wedge q(x,y)) \rightarrow r(x,y)]$$

$$(ii) \quad x, y, [(x < y) \rightarrow ((x-y) > 0)]$$

  
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**DEPARTMENT OF MINING ENGINEERING**

**UNIVERSITY RANK HOLDERS**



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.**  
**VTU GOLD MEDALISTS**  
**VTU 20<sup>TH</sup> ANNUAL CONVOCATION - APRIL 2021**  
**BACHELOR OF ENGINEERING AND BACHELOR OF TECHNOLOGY**

SL.No	USN	STUDENT NAME	COURSE NAME	COLLEGE	CGPA
1	1M16AB096	SHEREEN KAAZ	Aeronautical Engineering	M.V.J. Bengaluru	9.07
2	1AY16AU042	UJWAL H C	Automobile Engineering	Acharya Inst. Bengaluru	8.52
3	2KL16BM006	NAVYA KRUSHNADAS BHAT	Bio-Medical Engineering	KLBCET, Belgum	8.04
4	1MV16BT013	K PREKSHA MADHAIYA	Biotechnology	SMVT, Bengaluru	9.04
5	1M16CH046	SURASHREE S	Chemical Engineering	M.V.J. Bengaluru	9.25
6	1VI16CS091	SANNIDHI A	Computer Science & Engineering	Venka Inst. Bengaluru	9.27
7	1OK16CT013	PRUVTI MAHABHESHWAR KARKI	Construction Technology and Management	Oxford Collge, Bengaluru	8.17
8	4SF16CV015	ASMAITH SHARMEEN T S	Civil Engineering	Sahyadri, Mangaluru	9.42
9	1MV16DC030	GAGANA T REDDY	Electronics & Communication Engineering	SMVT, Bengaluru	9.40
10	4VY16ED002	APOORNA H R	Electrical & Electronics Engineering	VVCE, Mysuru	9.34
11	1BK16E0020	SERMA R NEGOS	Electronics & Instrumentation Engineering	BIT, Bengaluru	8.94
12	1BN16EM025	NITIKA JAIN	Industrial Engineering & Management	BIT, Bengaluru	9.12
13	4UB16EP005	AKHEES FATIHA	Industrial & Production Engineering	UBDT, Davangere	8.12
14	1RN16ES061	P YUKTHA	Information Science & Engineering	RNS Inst, Bengaluru	9.10
15	1BY16ES010	ARUN D	Mechanical Engineering	BMS Inst, Bengaluru	9.49
16	1GV16EP020	SIBTH S	Mining Engineering	Dr. TITC KGF	8.92
17	1M16GL005	KAVENI S HEBBAL	Medical Electronics	M.V.J. Bengaluru	8.55
18	4MR16HR010	CHARJITH SHIVAJI H PRABHU	Marine Engineering	Mangalore Marine, Mangaluru	9.10
19	1AY16MS017	VASHNAVI B J	Manufacturing Science & Engineering	Acharya Inst, Bengaluru	8.09
20	4MT16MT022	MUBASHIR P	Mechatronics Engineering	MITE, Mondalbidri	8.81
21	4SN16N010	JUNEED KHAN	Nanotechnology	Sriarava Inst Mangaluru	9.73
22	1BY16TS029	HEBA R	Telecommunication Engineering	BMS Inst, Bengaluru	9.25
23	1SK17TX008	SHWETA IRANNA BAGALJODY	Textile Technology	Govt.SKSJT, Bengaluru	8.52

**BACHELOR OF ARCHITECTURE**

SL.No	USN	STUDENT NAME	COURSE NAME	COLLEGE	CGPA
1	1BQ15AT013	ARSHITA RAVINDRANATHAN	Architecture	BMS School of Arch.	8.81

**MASTER OF ARCHITECTURE**

SL.No	USN	STUDENT NAME	COURSE NAME	COLLEGE	CGPA
1	1CF18AHD10	ROHINI HENGAR	Habitat design	BMS Coll. of Arch.	8.87
2	1BK18AU/D01	AVNI GOR	Urban design	BMS School of Arch.	8.05
3	1JA18CPM06	HANJU C	Construction & Project Management	SJB School of Arch.	9.26

**MASTER OF BUSINESS ADMINISTRATION**

SL.No	USN	STUDENT NAME	COURSE NAME	COLLEGE	CGPA
1	1BG18MBA16	BHOONIKA KM	MBA	BHM Inst., Bengaluru	8.89

**MASTER OF COMPUTER APPLICATIONS**

SL.No	USN	STUDENT NAME	COURSE NAME	COLLEGE	CGPA
1	4SO17MCA07	DEEVA EIONA DANIEL	MCA	St.JEC Mangaluru	9.01



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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION

### INDUSTRIAL VISIT FOR ADVANCED LEARNERS



*An Industrial Visit was organized to ISRO – ISAC, Bangalore for the 6th Semester students on 9th April 2018. The visit was coordinated by Mrs. Jenitha A, Associate Prof. The students were accompanied by Mrs. Vijayalakshmi G V, Associate Prof. ECE, Mrs. Mamatha V, Mr. Shashikiran S, Mrs. Manjushree K Chavan, Assistant Professors, ECE.*



*Students of Second and Final Year visited BEML Limited, KGF on 23rd March 2019 organized by Mrs. Manjushree K Chavan, Assistant Professor accompanied by Ms. Kanimozhi S, Assistant Professor, Mr. Srinivas Babu, Assistant Professor Mr. Shashikiran, Asst. Professor and Mr. Rajesh Kumar Kaushal Asst. Professor. Students were taken to various Departments in BEML and exposed to the industrial environment.*

  
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*A visit to All India Radio, (Akashvani, AIR ) in Bangalore and Hoskote Divisions was organized for the students of Third Year and Final Year .Mrs. Manjushree K Chavan, Asst Prof. E&C organized the visit on 07/05/2019. The students were accompanied by Dr. Palaniswamy, Professor , Dr. Vijayalakshmi G V, Associate professor and Ms. Tamil Vani R , Assistant Professor . The visit was aimed at enhancing the knowledge of students about the studio and FM Transmitters along with concepts of the Base Station.*

  
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**FINANCIAL SUPPORT FOR PROJECT**

**KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

Indian Institute of Science campus, Bengaluru - 560 012  
Website: <http://www.kscst.iisc.ernet.in/spp.html> || Email: [spp@kscst.iisc.ernet.in](mailto:spp@kscst.iisc.ernet.in) || Phone: 080-23600978

**43<sup>rd</sup> Series of Student Project Programme: 2019-20**

**LIST OF STUDENT PROJECT PROPOSALS APPROVED FOR SPONSORSHIP**

**45) Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY, KOLAR**

240	43S, BE, 7383	LEAK DETECTION IN PIPE NETWORKS USING OPTIMIZATION TECHNIQUES	MECHANICAL ENGINEERING	B.E	STREAM A	M. BALASUBRAMANIAN S	Ms. S. PRADHEEP Ms. SWETHA P Ms. SHYAMLI P M Ms. SANDHYA R	5000.00
241	43S, BE, 7383	IoT BASED AUTOMATIC CONTROL OF SUN TRACKING SOLAR PANEL FOR HIGH POWER GENERATION	ELECTRONICS AND COMMUNICATION ENGINEERING	B.E	STREAM A	Prof. BUCKMANI OKAKARAN	Ms. PREVA D Ms. PAVITHRA N Ms. RAMIYA B Y Ms. CHARSHINE P	5500.00

**Note**

The sanctioned amount will be sent separately by KSCST to the College in the name of the principal by NEFT transfer. The details of transaction no. and date will be intimated.  
The evaluation of above projects will be conducted at the nodal centres in the month of May - June 2020. Participation in the evaluation process of the nodal centres is mandatory, failing to which the sanctioned project will be withdrawn from the list and sanctioned amount shall be returned to KSCST.  
Further projects will be short-listed for state-level seminar & exhibition which will be conducted during July - August 2020.  
After completion of the projects, the hard copy and soft copy (PDF format only) of the report needs to be sent to KSCST without fail.  
Any corrections with respect to the names of the guide and students should be requested at [www.kscst.iisc.ernet.in](http://www.kscst.iisc.ernet.in)

  
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**DISPLAY OF TOPPERS ON NOTICE BOARD**

S.No	Academic Year	NAME OF THE STUDENT	Marks
1	2002-2003	ISUREKA	79.3
2	2003-2004	KARTHI G	79.3
3	2004-2005	SREELAKSHMI	80.4
4	2005-2006	KRISHNARATI VENKATESHVARA REDDY	80.4
5	2006-2007	ESTHER GEORGINAAN	80.4
6	2007-2008	VARUN	80.4
7	2008-2009	AKSHATHA SHETU	80.4
8	2009-2010	VISHAL MITTAL	79.1
9	2010-2011	KRISHNA KUMAR	80.2
10	2011-2012	POONAM J	78.0
11	2012-2013	DENNIS T K	78.4
12	2013-2014	MAHAK AGGARWAL	73.57
13	2014-2015	MALINI S	78
14	2015-2016	PREETHI M	72.04
15	2016-2017	VIDYA DILIP	80.4
16	2017-2018	CHANDHINI A	79
17	2018-2019	ROSHNI A	89.30
18	2019-2020	SWETHA A	76.5
19	2003-2004	SHREYAS R.S	81.50
20	2004-2005	HEEZIBA K	75
21	2005-2006	SHAMA ANJUM	71.2
22	2006-2007	HARSHITHA R	75.4
23	2007-2008	INDHUMATHI R.S COLLEGE TUMKUR	80
24	2008-2009	SHARATHAMARHA A.R COLLEGE TUMKUR	81.10

  
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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION &  
MECHANICAL ENGINEERING**

**CASH PRIZE FOR TOPPER**



Ms Suganthi K from ECE department was presented with a cash prize of Rs. 1 Lakh at the 29<sup>th</sup> graduation Day (2018) ceremony. The award was instituted and sponsored by Dr. T Venkat Vardhan-President GVET

  
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**DEPARTMENT OF BASIC SCIENCE AND HUMANITIES**  
**PARTICIPATION IN WEBINARS/SEMINARS**



*Students Participated in Various Webinars*

*11/12/21*  
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## DEPARTMENT OF CIVIL ENGINEERING

### PAPER PUBLISHED IN CONFERENCES



#### Storm Water Harvesting in Urban Pavements by Using Pervious Concrete

<sup>1</sup>M.Manasa, <sup>2</sup>Ajith Kumar B, <sup>3</sup>John Simson J, <sup>4</sup>Sompra Stanley R, <sup>5</sup>Thilak Bala Kumar.M

Department of Civil Engineering, Dr. T. Thimmaiah Institute of Technology, Kolar gold field Karnataka.

<sup>1</sup>Associate Professor and HOD Dr. T. Thimmaiah Institute of Technology, KGF

<sup>2,3,4,5</sup> Final Year UG Students Dr. T. Thimmaiah Institute of Technology, KGF.

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**Abstract:** Due to modern urban development and improper drainage system, flooding has become common in India. Study suggests that use of pervious concrete is cost effective and eco-friendly. The use of pervious concrete consists of high permeability, low strength and high porosity when compared to the normal pavement or normal concrete. The aggregates are single size bonded with only cement paste which also omits the usage of fine aggregates thereby forming intercellular structures, which allows the storm water to seep into ground for recharge of ground water table by reducing the runoff of water on the surface. During the excess flow of storm water which cannot percolate the ground water surface enters the storage tank which is provided adjacent to the roads or beneath the surface of the footpath. The water which is stored in the storage tank can be used for external applications. However the concrete surface affects the tyres and creates noise, by using pervious concrete or exposed aggregate concrete it can be reduced.

**Keywords:** Pervious concrete, storm water, ground water recharge, storage tank, external applications.

### I. INTRODUCTION

Pervious pavements are alternatives to traditional to asphalt and concrete. They permit water to undergo soil below, reduce storm water and recharge groundwater. Pervious pavements are utilized in many parts of the planet to enhance wet weather driving safety, reduce traffic noise and manage storm water runoff. Pervious and interconnected structure pore allows that water to simply penetrate into it and convert this sort of pavement to eco-friendly pavement. Pervious concrete is homogenous mixture of cement, aggregate gravel and water where this sort of concrete is additionally called as no-fines concrete. Pervious concrete could even be a special high porosity concrete used for flat work applications that consents water from precipitation and other sources to undergo it, thereby reducing the runoff from a site and recharging spring water levels. Pervious

concrete are produced using large aggregates with little to no fine aggregates. Pervious concrete is traditionally utilized in parking areas, areas with high traffic, residential streets, pedestrian walkways, and green houses. It is an important application for sustainable construction and is one of many low impact development techniques employed by builders to protect water quality. The use of pervious concrete is recognized as best management practice by US environment protection agency for providing first flush pollution control and storm water management. High impact development within the areas of transportation infrastructure by the development of conventional concrete pavements is transforming the natural pervious ground into an impervious land cover. The development of conventional impervious pavement systems has caused two major shifts within the local environment including changes of hydrological aspects and variations within the surrounding thermal ambience. Pervious pavements with reservoir structure of concrete paving-stones offer the likelihood for a decentralized, sustainable storm water management and source control in urban areas. Runoff from streets and parking areas with low traffic densities are often infiltrated to support spring water recharge and to scale back hydraulic stress in sewer systems, receiving waters and wastewater treatment plants. Infiltration can help to return the urban water cycle to its natural condition, increasing spring water recharge and evapotranspiration. Hence by evaluating the consequences of various admixtures of pervious concrete block the strength and permeability balance is decided. The most objective is to scale back the stagnant and runoff of the water by allowing it to percolate into ground surface.

Pervious concrete has very rough an uneven appearance thanks to the consistent of cement coarse aggregate, admixtures (Fly ash or pozzolana or ground granulated furnace slag (GGBS)) with little to no fines aggregates and water.

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