SELF ASSESSMENT REPORT

submitted to

NATIONAL BOARD OF ACCREDITATION,NEW DELHI

By

NAME OF THE PROGRAMMME:

Diploma in Civil Engineering

Dr. B.B.A.GOVT.POLYTECHNIC ,
Karad(D.P.),
Madhuban Dam Road,
U.T. OF DADRA & NAGAR HAVELI-396240
Department of Technical Education,
Administration of Dadra & Nagar Haveli(U.T.),
GOVT.OF INDIA

Approved by All India Council for Technical Education

Affiliated to Gujarat Technological University, Ahmedabad

SAR CONTENTS

PART A: Institutional Information

1.Name and Address of the Institution: Dr. B.B.A. Government Polytechnic,
Address: Karad(D.P.), Madhuban Dam Road,
Behind Electric Sub Station, U.T. of Dadra & Nagar Haveli, Pin:396240,INDIA

2.Name and Address of the Directorate of Technical Education: Director of Technical Education,
PWD Complex, Silvassa, U.T. of Dadra & Nagar Haveli,Pin-396230

3.Year of Establishment: 1994

4.Type of Institution:

University	☐
Deemed University	☐
Autonomous	☐
Affiliated	☑
Any other(please specify)	☐

5. **Ownership status**

Central Government	☑
State Government	☐
Government Aided	☐
Self financing	☐
Trust	☐
Society	☐
Section 25 Company	☐
Any other(Please specify)	☐

Provide Details:

6.**Other Academic Institutions of the Trust/Society/etc., if any:** Not applicable

Name of the Institution	Year of Establishment	Programs of study	Location
---	----	-----	-----

Note: Add rows as required

7.**Details of all the programs being offered by the Institution under consideration:**

Sl. No.	Program Name	Year of Commencement	Intake Capacity	Increase in Intake, if any	Year of Increase	AICTE Approval	Accreditation Status
1	Diploma in Mechanical Engg.	1994	60	90	2011	Yes	Applying First time
2	Diploma in Electrical Engg.	1994	60	90	2011	Yes	Applying First time
3	Diploma in Civil Engg.	1994	60	60	-----	Yes	Applying First time

. Write appropriate option from the list:

. Applying first time (√ **)**

.Granted provisional accreditation for two years for the period(specify period)

. Granted provisional accreditation for five years for the period(specify period)

.Not accredited (Specify visit dates, year)

. .Withdrawn(Specify visit dates, year)

.Not eligible for accreditation

.Eligible for accreditation

.Eligible but not applied

8.Programs to be considered for accreditation vide this application:

S.No.	Program Name
1	Diploma in Mechanical Engineering
2	Diploma in Electrical Engineering
3	Diploma in Civil Engineering

9.Total Number of Employees:

A. Regular *Faculty and Staff:

Items		CAY(2016-17)		CAYm1(2015-16)		CAYm2(2014-15)	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering & Technology	M	10	10	11	11	11	11
	F	02	02	02	02	02	02
Faculty in Science & Humanities	M	01	01	01	01	01	01
	F	01	01	01	01	01	01
Non Teaching staff	M	13	13	13	13	13	13
	F	02	02	02	02	02	02

B. Contractual Staff (Not covered in Table 9.A)

Items		CAY(2016-17)		CAYm1(2015-16)		CAYm2(2014-15)	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering & Technology	M	10	10	10	10	10	10
	F	04	04	04	04	04	04
Faculty in Science & Humanities	M	02	02	02	02	02	02
	F	01	01	01	01	01	01
Non Teaching staff	M	12	12	12	12	01	01
	F	01	01	01	01	01	01

10.Total Number of students:

Items	CAY(2016-17)	CAY m1(2015-16)	CAY m2(2014-15)
Total no. of Boys	645	612	640
Total no. of girls	104	86	80
Total no. of students	749	698	720

11.Contact Information of the Institution and NBA Coordinator:

I. Head of the Institution:

Name: Priyanka Kumari (DANICS)

Designation: Principal, Dr. B.B.A. Govt. Polytechnic, Karad(D.P.), U.T. of Dadra & Nagar Haveli

Mobile No: +91-7069198485

Email id:pksonulal@gmail.com

II. NBA Coordinator, if designated:

Name: Dr. Bikram Keshori Dandapat

Designation: Lecturer (Selection Grade) & HOD, Mechanical Engineering Department

Dr. B.B.A. Govt. Polytechnic, Karad(D.P.), U.T. of Dadra & Nagar Haveli

Mobile No.: +91-8460259963

Email Id: bikramkeshori_d@yahoo.com

LIST OF EMPLOYEES WORKING IN THE DR. B.B.A. GOVERNMENT POLYTECHNIC, KARAD (D.P.) during Academic Years:2014-2016

Sr. No.	Name & Designation
Group "A"	
01	Shri C.S. Rao, Lect. in Mech. Engg.
02	Dr. B.K. Dandapat, Lect. in Mech. Engg.
03	Shri Swapnil S.Shrawge, Lect. in Mech. Engg.
04	Shri B. Moharana, Lect. in Mech. Engg.
05	Shri P.V. Gadge, Lect. in Prod. Engg.
06	Shri D.L. Sahu, Lect. in Civil Engg.
06	Dr. B. Jha, Lect. in Civil Engg.
08	Shri K.B. Patel, Lect. in Civil Engg.
09	Shri R.N.D. Sarma, Lect. in Civil Engg.
10	Shri S. Mishra, Lect. in Electrical Engg.
11	Smt. C.N. Desai, Lect. in Electrical Engg.
12	Shri A.K. Swain, Lect. in Electrical Engg.
13	Smt. M.G. Desai, Lect. in Electronics
14	Shri S. Chennappa, Lect. in Computer Engg.
15	Dr. J.B. Rana, Lect. in Chemistry
16	Shri D.N. Shinde, Lect. in Maths
Group "B"	
17	Shri P.N. Parmar, Office Superintendant
Group "C"	
18	Shri B.H. Chauhan, Sr. Store Keeper
19	Shri P.U. Vyas, Accountant
20	Shri Tonny L. Naronha, Jr. Steno
21	Shri A.L. Dhodi, UDC
22	Shri A.M. Harijan, LDC
23	Smt M.S. Desai, Asstt. Librarian
24	Shri M.B. Rohit, W.I
25	Shri B.S. Korda, W.I
26	Shri S.C. Patel, W.I
Group "D"	
27	Shri V.L. Patel, Laboratory Attendant
28	Shri R.J. Varli, Mali
29	Shri C.N. Harijan, Sweeper
30	Smt. S.V. Egde, Peon
31	Shri A.N. Solanki, Watchman

Sr. No.	Name & Designation
Contract Lecturers	
32	Shri A. D. Desai, Lect. in Physics
33	Shri S. M. Chavan, Lect. in English
34	Shri M. S. Billiwala, Lect. in Civil Engg.
35	Smt K. R. Jadeja , Lect. in Electrical Engg.
36	Shri J. K. Rohit, Lect. in Electrical Engg.
37	Shri Vishal Dhoke, Lect. in Mechanical Engg.
38	Shri Dipan Patel, Lect. in Mechanical Engg.
39	Smt H. H. Parmar, Lect. in E&C Engg.
40	Smt A. N. Patel, Lect. in E&C Engg.
41	Shri S. S. Mecwan, Lect. in Computer Engg.
42	Shri S. N. Solanki, Lect. in Computer Engg.
43	Shri A. A. Patil, Lect. in Computer Engg.
44	Shri B. K. Doshi, Lect. in I.T.
45	Smt U. C. Patel, Lect. in I.T.
Short Term Contract Multi Tasking Staff	
46	Ms. Nisha M. Shingda, MTS
47	Shri Ajay S. Patel, MTS
Short Term Contract Lab. Assistant / Lab. Technician	
48	Shri Suraj Mahala, Lab. Assistant
49	Shri Vad Ritesh B., Lab. Technician
50	Shri Bij Prakash B., Lab. Technician
Short Term Contract Workshop Instructor (Turner)	
51	Shri Dalu Nadge, W.I. (Turner)
Short Term Contract Lab. Attendant	
52	Shri Akshay Solanki, Lab. Attendant
53	Shri Patel Anilbhai M., Lab. Attendant
54	Shri Dodia Shailesh, Lab. Attendant
55	Shri Kamdi Kalpesh, Lab. Attendant
56	Shri Santoshbhai Gangoda, Lab. Attendant
57	Shri Bij Jitubhai, Lab. Attendant
58	Shri Mali Vikram, Lab. Attendant

Part B

CRITERION 1	**Vision ,Mission and Program Educational Objectives**	**50**

1.1 Vision and Mission (List and articulate the vision and mission statements of the institute and department)

The vision of Dr.B.BA.Govt.Polytechnic is:

The establishment of Dr. B.B.A. Govt. Polytechnic, at Dadra and Nagar Haveli will help the UT Administration to meet its man power needs and also in development of tribal regions. Moreover, the Territory must have a Polytechnic of its own to meet the aspirations of the local people, by transforming the students to be technically skilled managers, innovative leaders and environmentally receptive citizens.

The Mission of Dr.B.BA.Govt.Polytechnic is:

To implement holistic approach in curriculum and pedagogy through Industry Integrated Interactions to meet the needs of Global Engineering Environment.

To develop students with knowledge, attitude and skill of employability, entrepreneurship (Be Job creators than job seekers), research potential and professionally ethical citizens.

The Mission of Civil* Engineering *Department is:

*Prepare the students with strong fundamental concepts, analytical capability, and problem solving skills. Create an ambience of education through faculty training, self learning, sound academic practices and research endeavors.

*Provide opportunities to promote organizational and leadership skills in students through various extra- curricular and co-curricular events.

*To make the students as for as possible industry ready to enhance their employability in the industries.

*To improve department industry collaboration through internship program and interaction with professional society through seminar/workshops.

*Imbibe social awareness and responsibility in students to serve the society and protect environment

1.2 Program Educational Objectives (PEOs) (5)

The Program Educational Objectives (PEOs) of the department of Mechanical Engineering Department are given below:

PEO1: To provide the imperatives knowledge of science and engineering concepts fundamental for a Civil Engineer professional and equip the proficiency of fundamentals of Civil Engineering and practical skills needed for competent problem solving ability.

PE02: To inculcate ability in creativity & design Structures and impart knowledge and skills for analyze, design, test and implement various machineries of civil Engineering.

PE03: To exhibit leadership capability, triggering social and economical commitment and inculcate community services and protect environment

PEO4: Pursue higher education, research or entrepreneurship.

1.3 Indicate where the Vision, Mission and PEOs are published and Disseminated among stakeholders (10)

The Vision and the Mission of the Department are the fundamental bedrocks for its activities.

The entire program offered by the Department follow these.

1.3.1 Indicate how and where the Vision and Mission are published and disseminated

The Mission and Vision are published and disseminated through

College website: www.drbbagpks.org

HOD Chamber
Notice Boards of the department
Library
Department Laboratories
Department Corridor

1.3.2 State how and where the PEOs are published and disseminated

Dissemination of PEOs

The PEOs are published and disseminated through

College Website

Notice Boards of the department

Library

Department Laboratories

Department Corridor

HOD Chamber

1.3.3 List the stakeholders of the program

The stakeholders of the program are

Students

Alumni

Faculty Members

Parents

Employers

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (15)

1.4.1 Mention the process for defining Vision and Mission of the department

The process for defining Vision and Mission of the department was discussed in the department level and it was established through a consultative process involving the stakeholders of the department, the future scope of the department and the societal requirements .

In establishing the vision and mission of the department, the following steps were followed:

Step 1: Vision and Mission of the Institution are taken as basis

Step 2: Views are taken from stakeholders of the department such as students, faculty members, parents, Employers and alumni.

Step 3: The views about the vision and mission of the department are formulated by the team of faculty members of the department.

Step 4: The vision and mission are analyzed and reviewed to check the consistency with the vision and mission of the department at the college level by NBA Committee

Step 5: Finally the Principal, Dr. B.B.A. Govt. Polytechnic approve the vision and mission of the department.

1.4.2 State the process for establishing the PEOs

(Describe the process that periodically documents and demonstrates that the PEOs are based on the needs of the program various stakeholders.)

* The department draws upon constituents input to construct and periodically revise our PEO's. Data are collected from constituents in various ways, some formal, systematic, and some not. We have learned that some modes of input are much more effective than others in generating useful information, and constantly improving our processes for gathering input from constituencies in response to these experiences.

* The Program Educational Objectives are established through a consultation process involving the core constituents such as: **Student, Alumni, Faculty, Employers and Parents.** The PEOs are established through the following process steps.

Step 1: Vision and Mission of the college are taken as basis.

Step 2: Vision and Mission of the department are taken as a basis to interact with various stakeholders.

Step 3: The program coordinator collects the views of the stakeholders.

Step 4: On considering the views that were collected from the stakeholders, the PEOs are formulated by the team of senior faculty members identified for the program.

Step 5: The PEOs are represented before the Civil Department faculties for additional inputs to improvise the program

Step 6: Finally approves the PEOs.

1.4.2.1 The following are the various assessment process used to assess the attainment of PEOs.

Lessonplan /Curriculum

NBA – quality Cell

Parent Teachers Meet

Student feedback

Faculty Feedback

Employer Feedback

Workshops/ Guest Lectures/ Seminars

Assessment Process	**Assessment Criteria**	**Data collection Frequency**	**Responsible Entity**
Principal	Course content to meet industry requirements and to pursue higher	Once in a Year	College Level

	Studies		
Lesson Plan	Content Delivery	Once in a semester	Department
College level NBA Committee	Improvements and Suggestions	Once in a Semester	College level
Workshops/ Guest Lectures/ Seminars	Cutting edge Technology	Frequently Conducted with at least 1 per Semester	Department
Attendance Log Book	Conduct of classes	Thrice in a semester (I,II & III internals)	HOD
Feedback	Assess Quality	Once in a year/Semester	College/Department
	Suggestions		

M1=Prepare the student with strong fundamental concepts, analytical capabilities and skills

M2= Create ambience education through faculty training, self learning, sound academic practices.

M3=Provide opportunities to promote organizational leadership and skills of students through various extracurricular activities and events.

M4=To make the students as far as possible industry ready to enhance their employability in the Industries.

M5=Imbibe social awareness and responsibility in students to serve the society and protect environment

PEO1: To provide the imperatives knowledge of science and engineering concepts fundamental for a civil Engineer professional and equip the proficiency of fundamentals of civil Engineering and to Design, Drawing, test, estimate, planning ,construction and documentation of basic Civil Engineering practical skills for competent problem solving ability.

PE02: To inculcate ability in creativity & Design, Drawing, test, estimate, planning, construction society needed products and engage in construction, repair & maintenance of Components of Civil Engineering

PE03: To exhibit leadership capability, triggering social and economical commitment and inculcate community services and protect environment

PEO4: Pursue higher education, research or entrepreneurship.

1.5 Establish consistency of PEO's with Mission of the Department (15)

PEO	M1	M2	M3	M4	M5

Statements					
PEO1	3				
PEO2	3			3	2
PEO3		2	3		3
PEO4	3	3	2		2

1;slight(low) 2: Moderate(medium) 3:Substantial(high)

1.5.1. Justify the academic factors involved in achievement of the PEOs

Listed below are the factors that are involved in the attainment of the PEOs.

*Curriculum and Syllabi

*Lesson Plan

*Course File

*Assessment

*Feedback

Curriculum and Syllabi :

The various courses for each program were selected in accordance with the PSOs of the program. The courses both regular and elective were mapped along with the achievement of the PSO and accordingly distributed among the various semesters of the

program. The Syllabi for the courses are designed in line with the principles of outcome based education and prime objective of attainment of the PSOs.

Lesson Plan :

A good curriculum and syllabi is effective only by a well planned teaching Learning Process. In order to aid this, all the faculty prepare a lesson plan well before the commencement of the classes. This includes the theory and lab courses. It involves not only the contents of the syllabi but focus is given to content beyond syllabus. This lesson plan is duly signed by the head of the department, discussed in the first class committee meeting and then circulated amongst the concerned students also.

Course File :

It is a practice to maintain a course file for each theory courses. This keeps track of all the activities carried out in the class room during the course delivery. This includes the time table, lesson plan, record of content delivery, assessment component details, sample evaluated answer scripts, marks of the continuous assessments tests and the performance analysis sheet and remedial action. The performance analysis sheet and remedial actions taken sheet provides a way for the course teacher to keep track of the students who have not performed well and also monitor their performance in the next test. The course file also includes the internal assessment, end semester marks and statement of grades. This course file is duly monitored by the Head of the Department and maintained in the Department Library thus serving as a reference for the teachers who handle the courses.

Assessments:

The students are evaluated on the basis their performance. This evaluation is done by way of the continuous assessment tests and end semester examinations. For Diploma students two continuous assessments(mid semester test and internal exam) and an end semester examination is conducted for every course. An entry of the internal marks is made in the GTU website of Institutional login by every course teacher. The results are available for students by GTU website.

Feedback:

The NBA Team at Dr. B.B.A. Govt. Polytechnic thus monitors the quality of the entire process for every course. An NBA- Quality Assurance Cell (NBA-QC) is an integral part of the system .By assuring that all the above mentioned are duly carried out the PEO's are achieved.

1.5.2. Explain how administrative system helps in ensuring the attainment of PEOs

The following administrative setup is put in place to ensure the attainment of PEOs

NBA- QC

*Program coordinator

*Course coordinator

*Department Assessment Committee Program (DCP)

Program Coordinator

Interacts and maintains liaison with key stake holders, students, faculty, Department Head and employer.

Monitor and reviews the activities of each year in program (I/III/V & II/IV/VI) independently with course coordinators

Schedules program work plan in accordance with specifications of program objectives and outcomes

Oversees daily operations and coordinates activities of program with interrelated activities of other programs, departments or staff to ensure optimum efficiency and compliance with appropriate policies, procedures and specifications given by HOD.

Conducts and interprets various surveys required to assess POs and PEOs.

Course Coordinator

*Coordinates and supervise the faculty teaching the particular course in the module.

*Responsible for assessment of the course objectives and outcomes

*Recommend and facilitate workshops, faculty development programs, meetings or conferences to meet the course outcomes

*Analyzes results of particular course and recommends the Program coordinator and/or Head of the Department to take appropriate action

*Liaise with students, faculty, program coordinator and Head of the Department to determine priorities and policies

National Board of Accreditation – Quality Assurance Cell (NBA-QC)

*Supervises and guides the activities of department Committees and Teams.

*Plans various development, delivery and assessment activities of PEOs and POs.

*Prepare an outcome-based assessment plan (OBAP) with the same broad structure across all programs to assessment PEOs and PO attainment.

*Act as a guiding and monitoring body for all departments committees and teams.

*Assumes responsibility of assessing availability of required resources and needed for achieving PEOs and POs for each program based on the departmental Committees recommendations.

*Present the results to the Principal for improvements or corrective action. *Through TPO administers the survey with external stakeholders.

*Obtain results of assessment of internal and external stakeholders including analysis of student performance in tests, exams, assignments projects etc. from Assessment Committee - Program (ACP).

*Analyze the results of the assessment and present the same to Academic Advisory Board (AAB).

*Based on directions/decisions of Principal, initiate corrective actions in revision of PEOs and POs.

Department Assessment Committee (DAC)

Assessment Committee Program consists of Program Coordinator, Module Coordinator and faculty representatives

Chaired by Program Coordinator, the committee monitors the attainment of PO and PEO's. Evaluates program effectiveness and proposes necessary changes

Prepares periodic reports records on program activities, progress, status or other special reports for management key stake holders.

Motivates the faculty and students towards attending workshops, developing projects, working models, paper publications and research

Interact with students, faculty, and Program Coordinators, Module Coordinator and outside/community agencies (through their representation) in facilitating program educational objectives

Department Assessment Committee List

S.no	Name	Position held	Responsibilities
1	Shri K.B.Patel	HOD	Department In charge
2	Shri K.B.Patel	NBA committee Member	NBA Incharge
3	Mr. D.L.Sahu Mr.R.N.D.Sharma	Course outcome, Program Outcome, Program Specific Outcome	Formulation of attainment
4	Mr. Mitesh Billiwala	Continuous Improvement	Attainment of PO and PSO

Various Committee in charge of Department

Sl.No.	Committee	
1	**Time table**	Shri K.B.Patel
2	**Mentor**	Dr.B.Jha
3	**Internal Test Cell**	Dr. B.Jha
4	**Website Over all**	Shri R.N.D.Sharma
5	**Departmental Website**	Shri Mitesh Billiwala

6	**Conference/Workshop, etc**	Dr. B.Jha
7	**Professional bodies**	Dr. B.Jha
8	**Slow Learners/ Rank Holders**	Shri R.N.D. Sharma
11	**Parent- Teachers Meeting**	Mrs. K.B. Patel
12	**1st Year Co-ordinators**	Mr.R.N.D. Sharma
13	**II year Class Teacher**	Mr.D.L.Sahu
14	**III year Class Teacher**	Mrs. K.B.Patel
17	**Placement**	Dr.B.Jha
18	**Industrial visits**	Mr.R.N.D.Sharma
20	**Newsletter**	Dr.B.Jha
21	**Cultural**	Mr.R.N.D.Sharma
22	**Sports**	Mr. R.N.D.Sharma
23	**Alumni**	Mrs. D.L.Sahu
24	**Student Seminar/ Mini Project**	Dr. B.Jha
	/Project	
25	**Over all Lab Coordinator /Project**	Mr.R.N.D.Sharma

CRITERION 2	**Program Curriculum and Teaching learning Processes**	**200**

2.1Program Curriculum (50)

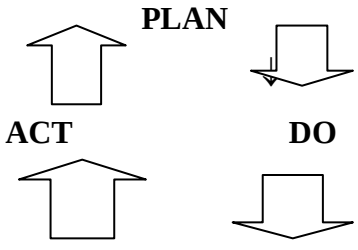
2.1.1. State the process used to identify extent of compliance of the board curriculum for attaining the program outcomes (POs) and program Specific Outcomes (PSOs) as mentioned in Annexure1.Also mention the identified Curricula gaps. If any (30)

A. Process used to identify extent of compliance of the University Curriculum for attaining the Program Outcomes and Program Specific Outcomes.

The Dr. B.B.A. Govt. Polytechnic, Karad (D.P.),U.T. of Dadra & Nagar Haveli is affiliated under Gujarat Technological University(GTU), Ahmedabad.

So our program curriculum is as per the scheme and syllabus of affiliated university. Generally Curriculum maintains the balance in the composition of basic science, humanities, professional courses and their distribution in core and elective and breadth offerings. If some components, to attain CO's/ PO's, are not included in the curriculum provided by the affiliated university then the Institution makes additional efforts to impart such knowledge by covering aspects through "CONTENTS BEYOND SYLLABUS". We add content beyond syllabus by proper "GAP analysis" process.

Quality Loop for Attaining the Program Outcomes -



(**Closing the Quality loop**)

STEPS-

(i)Plan the activity

(ii) Do it

(ii)Measure the performance

(iii)Initiate appropriate action based on what was planned and what was achieved

All the processes required for accreditation need to have the step of "closing the loop".

Steps of Gap Identification

1. A subject teacher does a thorough study of the curriculum. After discussion with other subject teachers a common platform is created wherein the link between various subjects is discussed. The curricular and knowledge gaps are identified and the strategy to overcome these gaps is arrived at.

2. Recent advances in the industry are identified with discussion between visiting faculties and departmental staff. The discussion also highlights the need for students to have knowledge of these advancements. Accordingly, symposiums, Seminars, Workshops, Training programs are arranged.

3. A review of curriculums offered by autonomous institutes is taken into consideration and the necessary contents are added in the seminars.

<u>At PO,PSO level(Curriculum Gap Analysis)</u>

i. POs and PSOs are achieved through formal courses and other co-curricular and extracurricular activities.

ii. Target levels of attainment of POs and PSOs are set; program is delivered; actual attainment of POs and PSOs is determined; The loop is closed either by increasing the target level for the

next cycle of the program or by planning suitable improvements in all the relevant activities to increase the actual attainment

iii. Closing the loop must be carried out, in a similar manner, at the level of PEOs also.

iv. This process view of quality implicitly central to accreditation.

List of Program Outcomes

PO1	An ability to apply knowledge of basic mathematics, science and engineering to solve the broadly defined Civil engineering problems.(**Basic knowledge)**
PO2	. An ability to apply discipline - specific knowledge to solve broadly defined Civil Engineering problems.(**Discipline knowledge**)
PO3	An ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments **(Experiments and practice)**
PO4	An ability to apply the knowledge, techniques, skills, and modern tools of their discipline to narrowly-defined engineering technology activities.**(Engineering Tools)**
PO5	Demonstrate knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering practice(**The engineer and society**)
PO6	Understand the impact of the engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.(**Environment and sustainability**)
PO7	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. **(Ethics**)

PO8	Function effectively as an individual, and as a member or leader in diverse/multidisciplinary teams.(**Individual and team work)**
PO9	An ability to apply written, oral, and graphical communication in both technical and nontechnical environments and the ability to use appropriate technical literature **(Communication)**
PO10	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the context of technological changes **(Life-long learning)**

List of PSO's

PSO1: The program must demonstrate that diplomats can apply specific program principles to Design, Drawing, test, estimate, planning, construction or documentation of basic Civil Engineering.

PSO2: The program make diplomats Design, Drawing, test, estimate, planning ,construction society needed products and engage in construction, repair & maintenance such quality products with utmost environment safety and committed for and provide good service to the society.

Process for "Curriculum GAP ANALYSIS"

Identified Curriculum Gaps

1. Certain gaps like knowledge of fundamentals in Mathematics and Science(10th level) which is not covered in the curriculum but are required for studies of Diploma curriculum. They are taught in the regular class by allocating additional hours.

2. Personality is the most important virtue of the engineer. It is achieved through subject such as Contributory Personality Development(CPD). Other essential skills such as stress management, interview techniques, importance of team work etc. are covered by inviting experts in respective fields

B. List the curricular gaps for the attainment of defined POs and PSOs.

Recommended subjects to bridge academic and industry

Formation →	Notification →	Implementation
•The Program outcomes & program specific outcomes are prepared taking annexure 1 into consideration. •Allocation of course curriculum to faculty •Identification of links between various courses •Enumerate the identified curricular gaps	•Recent advances, identified curricular gaps are discussed with faculty of Dr. B.B.A. Govt. Polytechnic	•Seminars •Workshops •Training •Technical Quiz

2.1.2. State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

S.No.	Gap	Action taken	Date-month year	Resource Person	No.of students present	Relevance to POs&PSOs
1	knowledge of fundamentals in Mathematics	Faculties are giving special	During whole academic	(1)Shri D.N.Shinde (Lect. in Maths)	30% of the class	PO1,PO2 ,PO9

	and Science(10th level) which is not covered in the curriculum	care to poor students	year in lecture classes	(2)Shri Anand Desai, Lect. in Physics 3.Shri Sachin Chouhan, Lect. in English		
2.	Personality Development	Experts from Industry used to take lectures	During the academic session	Mr. S.S. Roy,(Entrepreneur & consultant)	60	PO 1,PO9

CAYm1(2015-16)

S.No.	**Gap**	**Action taken**	**Date-month year**	**Resource Person**	**No.of students present**	**Relevance to POs&PSOs**
1	knowledge of fundamentals in Mathematics and Science(10th level) which is not covered in the curriculum	Faculties are giving special care to poor students	During whole academic year in lecture classes	(1)Shri D.N.Shinde (Lect. in Maths) (2)Shri Anand Desai, Lect. in Physics 3.Shri Sachin Chouhan, Lect. in English	30% of the class	PO1,PO2,PO9

CAYm2(2014-15)

S.No.	**Gap**	**Action**	**Date-**	**Resource**	**No.of**	**Relevanc**

		taken	**month year**	**Person**	**students present**	**e to POs&PSOs**
1	knowledge of fundamentals in Mathematics and Science(10th level) which is not covered in the curriculum	Faculties are giving special care to poor students	During whole academic year in lecture classes	(1)Shri D.N.Shinde (Lect. in Maths) (2)Shri Anand Desai, Lect. in Physics 3.Shri Sachin Chouhan, Lect. in English	30% of the class	PO1,PO2, PO9

B. Delivery details of content beyond syllabus

Assignments on contemporary issues.

Additional laboratory experiments

Pre-placement Training

Training on Soft skills and value added programs

Creative /Projects

Guest lectures

Workshops/conference

Industrial Visits

C. Mapping of content beyond Syllabus with the PO's & PSO's

PO's Topics	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10

Pre-placement Training							√	√	√	
Training on Soft skills								√	√	√
Creative / Hobby Projects			√	√	√	√				
Guest lectures	√	√								
workshops	√	√	√	√						
Industrial Visits	√	√				√				

PSOsTopics	PSO1	PSO2
Pre placement Training	√	
Training on soft skills		
Creative/Hobby Projects	√	
Guest lectures	√	
Workshops	√	√
Industrial visits	√	√

2.2 Teaching Learning Process (150)

2.2.1 Describe processes followed to improve quality of teaching and learning

A. Adherence to Academic calendar (Institute and Department calendar)**:**

From the GTU(University) calendar of events a department calendar of events is derived which is specific to the department.

Lesson plan with course objectives and course outcomes are prepared by the subject handling faculty before the commencement of the semester and is dually approved by the Head of the department and made available to the students. Lesson plan is published by the GTU website.. According to the lesson plan, work done has been inculcated in the academic file to ensure coverage of syllabus dually monitored by Head of the department.

Maintenance of Course files:

For each course, a course file is prepared by the concerned faculty. The course file consists of following items

Teaching Plan

Teaching plans for each and every course are prepared by the faculty. Whole syllabus is divided into 6 units and 42 lectures as per the teaching scheme prescribed by the university.

The course objectives are defined for each course in line with the POs.

Lesson plan: Lesson plans are prepared for each lecture in the teaching plan by the faculty before the commencement of the semester and it is duly approved after careful examination by the Head of the Department and made available to the students.

The lesson plan encompasses the learning outcomes and the assessment of outcomes.

Question Bank: Question banks are prepared for each topic in the course based on the course objectives and considering the nature of the university question papers. The previous previous question papers of University are also maintained in the course files.

Assignment questions list and test question papers along with key solutions are included in the course files

B. Use of Various instructional methods and pedagogical initiatives: Lecture method and Interactive learning:

The faculty use chalk and board and audio visual aids in teaching. Students are also encouraged to actually interact during the lecture hour by getting the doubts clarified on the spot. Faculties using models, charts for interactive teaching

Project-based learning:

During the period of study in the 6th to 8th semester, many real time projects are given to the students and they are guided by both faculty and Industry/Research personnel.

Computer-assisted learning:

The College has required number of computers, printers, LCD projectors, application software's and system software's. These are effectively used for teaching. The students are also encouraged to develop software's for the solution of the assignments and tutorials. Many final year projects are completed through the use of software.

SMART class Room

Faculty are using SMART class room to interactive session. Projector is used for demonstration, video (NPTEL), audio of classes.

C. Methodologies to support weak students and encourage bright students: Guidelines to identify weak students

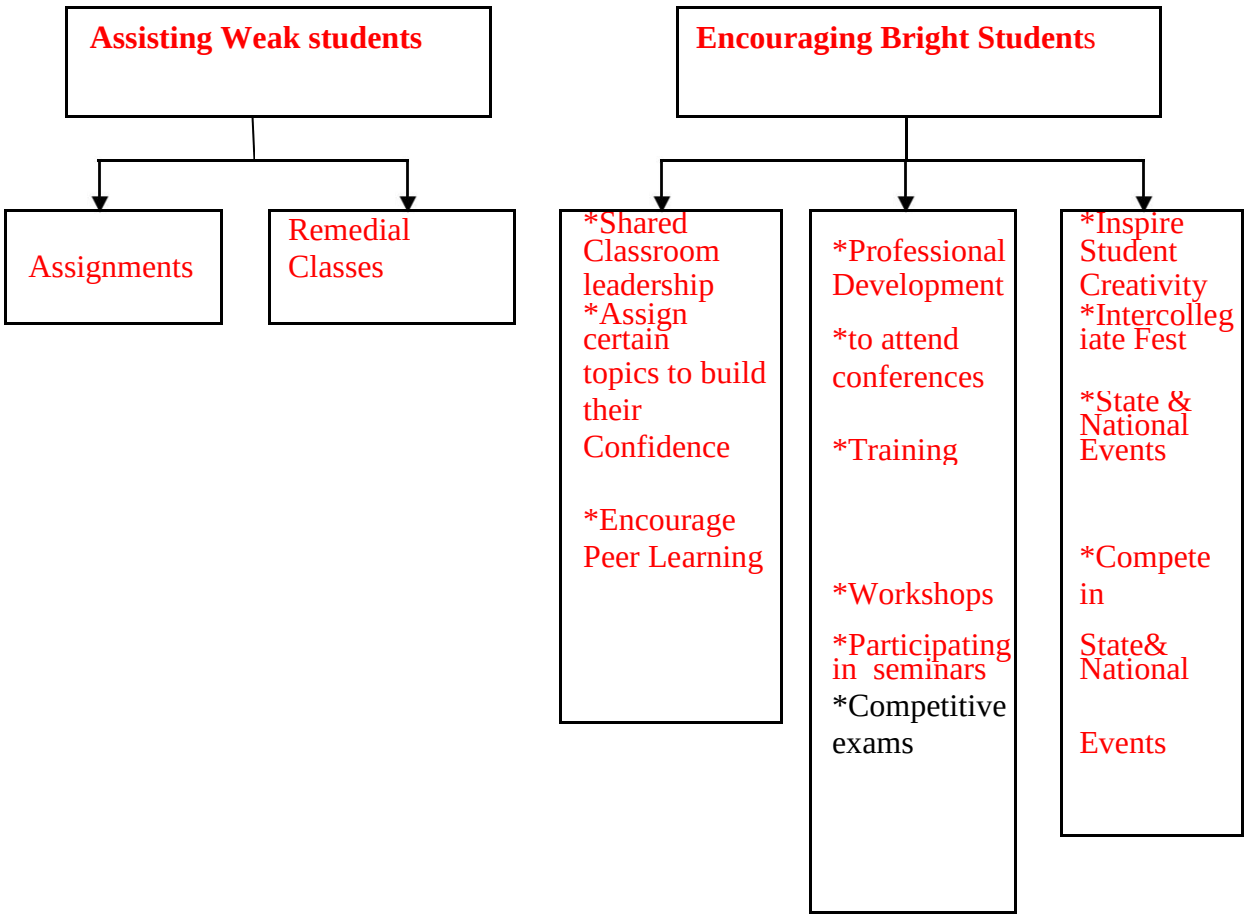
The Counselors regularly conduct meetings regarding progress of their mentees and are responsible to identify students who scored less than 60% marks in their internals. Under the HOD direction, the students Counselors evaluates the progress card of those students who score

below 60% marks in three or more subject and below 75% attendance are considered as **academically weak students** and same is also intimated to their parents.

MENTORING SYSTEM

Identification Criteria	Actions taken
Students scoring less than 60% of marks in Internal Assessment.	1. Student counselor follows their progress regularly advising students about attending classes, making up classes missed, and getting additional help. 2. Intimating parents to counsel their wards. 3. Conduction of remedial classes
Diploma students who entered with less basics of mathematics	Conduction of remedial classes.
Students who fail in semester exams	Conduction of extra classes to those who failed in previous semester subjects.

Process for Encouraging bright Students and Assisting Weak Students



D. Quality of classroom teaching:

The following innovative teaching methods are adopted by the faculty:

*Computers are used for teaching purposes and internet facility is available to students and faculty.

*Faculty members are taking advantage of sources like National Program on Technology Enhanced Learning (NPTEL), internet sources for effective teaching.

*white Board, PPTs etc. are used for teaching purposes.

* Online availability of various journals in the intranet.

*Well structured lesson plans are prepared / revised for all theory and practical courses on a period to period basis, scrutinized by HODs and made available in the website for student's access.

E. Conduct of Experiments:

Students carry out more than the required number of experiments, beyond the minimum specified by the University. All laboratory have excellent facilities. For the experiments detailed instruction manuals are provided. The observations are checked and verified by faculty and record books are maintained systematically. One faculty member is assigned for each practical class.

F. Continuous Assessment in laboratory:

Continuous assessment system is also implemented for assessment of laboratory work. The assessment is done on the basis of submission of laboratory records, understanding of the experiment through oral viva voce questions and participation in performing the experiment. Neatness of the laboratory record book is also given weightage in the assessment.

G. Student feedback of teaching learning process and actions taken:

At the end of the semester, all the students are required to fill a feedback-form apprising the faculty using a scale of 1 (high) through 10 (low).

Lecture classes are monitored by senior faculties and the HoD of the Department. They give constructive comments to improve the quality of teaching and the teaching- learning process.

Counseling by the respective HoD for those faculty members who have secured low scores and negative comments, if any, in the feedback. This motivates them to improve their skills and abilities.

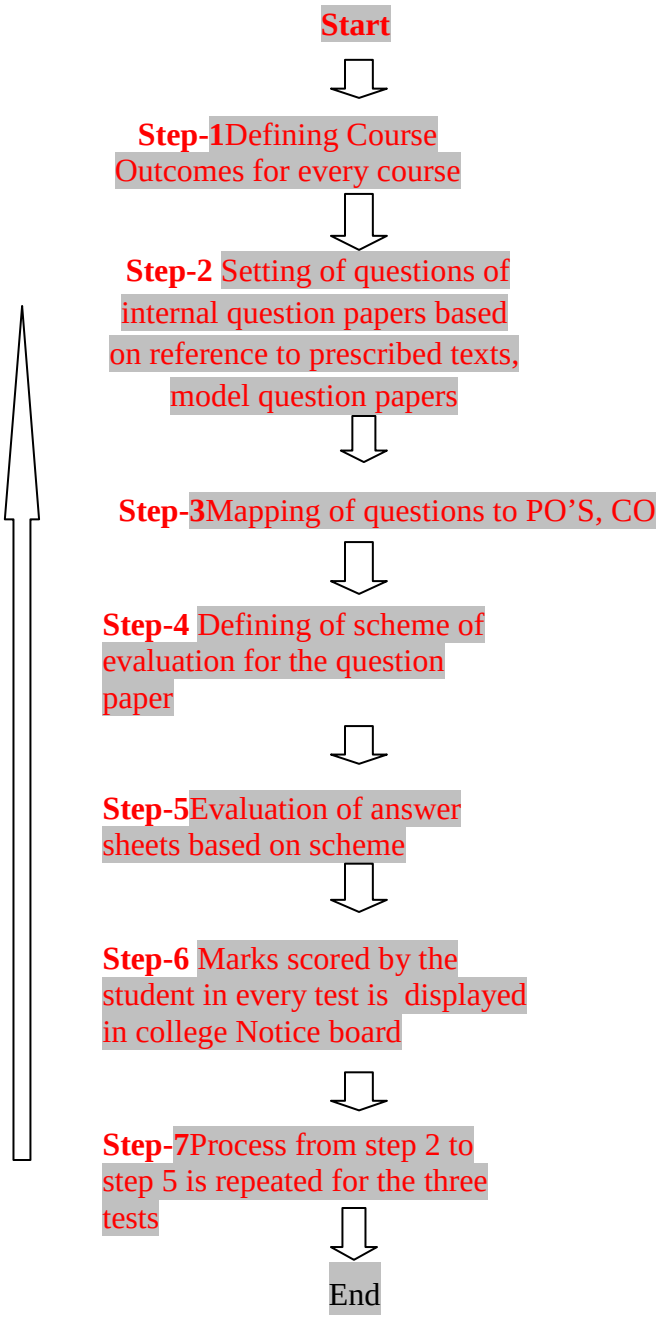
If required training / orientation program are conducted by professional experts to master the skills of the faculty members in the nuances of teaching, thus improving the efficiency of teaching-learning process.

2.2.2 Quality of Internal Semester Question Papers, Assignments and Evaluation

(Mention the initiatives, implementation details and Analysis of Learning levels related to quality of Semester question papers, assignments and evaluation)

A .Process for Internal Semester Question Paper setting and evaluation and effective process implementation:

In a semester, there are three tests. Each of the test consists of descriptive questions as well as quizzes. The average of the best two tests is considered for final internal assessment.



Process of Internal Semester Question Paper setting and evaluation

Blooms Taxonomy is followed while setting the internal exam question papers where the following strategy is applied.

The internal test consists of 50% of subjective questions

B. Process to ensure questions from outcomes/learning level perspectives

Each question is mapped with CO's PO's & Blooms taxonomy (BT) levels .Student who answered to particular question is taken into consideration and average of all students marks is taken for CO -PO attainment

C. Evidence of COs Coverage in class test/Mid-term test

Individual student's blue book is evaluated and question answered by student is mapped with CO's and PO's

Sample is shown in annexure -1 CO -PO attainment

D. Quality of assignment and its relevance to CO's

After the completion of every unit assignment questions will be given to students, and student has to write it & submit within a week and each question is mapped with CO's .So the students will be able to understand course outcome of particular subject.

2.2.3. Quality of Student Projects

*The student's projects are selected in line with department mission, vision and Program outcomes.

Students are provided with brief idea of various fields for selecting the project ideas.

*The list of previous year projects is displayed at notice board which ensures no repetition of project work and also encourages students to enhance the previous works.

*The faculties encourage the students to carry out in house projects and support will be provided with all necessary software and hardware.

*The faculties encourage students to participate in project exhibitions. The project exhibition was aimed to provide common platform to exhibit their innovations and their work towards excellence in latest technology.

*The faculties encourage students to publish their project work in reputed journals/conferences.

Evaluation scheme for final year Project

*A project coordinator is appointed by the Head of the department who is responsible for planning, scheduling and execution of all the activities related to the student project work.

*New innovative ideas are born for project work Skills or abilities of students improved.

*Knowledge on various aspects of project management were developed Confidence level of the students was boosted

*Improved teamwork spirit

*Implementation and deployment of the project for social benefits. Document preparation and presentation.

*More tendencies to showcase their project work in project exhibition were observed.

A. Identification of projects and allocation methodology to Faculty Members. (3)

*Projects are identified to relevant context. The need for the project and the end users of the project are verified for the current context.

* The problem definition with their requirements and constraints are verified.

*The knowledge, methodology, skill set and interest of the students to implement the project are considered to undertake the projects.

*Faculties of higher cadre are allocated as guides to guide the student's project.

*Each project team varies from two to four students.

*Faculty profile should match with the domain of the student's project.

*Students are also given choice to choose their guide that matches their project domain.

B. Types and relevance of the projects and their contribution towards attainment of PO's.

*Current academic projects are mapped to POs and PSOs.

*Each project is evaluated with internal marks and are graded according to their project quality and with their contribution towards attainment of PO's.

C. Process for monitoring and evaluation.

*Project students should meet their respective guide weekly once and asked to explain their progress they have done in their project in that week.

*They should submit project progress report weekly once and to get approved by the respective guide.

*The project guides will evaluate the report submitted by the students and help them to go with project work.

*Project guide will each assess each student in team and make them work in right way.

*The faculty members of Civil Engineering Department are responsible for making the regulations for evaluation and for complete evaluation process

*All the faculty members act as respective Guides for group of students as per 5th and 6th semester projects of GTU syllabus.

*The GTU guidelines are followed in evaluation of projects.

Phase – 1
(PROJECT-I) 5th Semester

Sl.No.	Performance Indicator	Marks(PA)
1	Title & Feasibility(Problem Identification)	(20)
2	Abstract & Depth of Knowledge	(20)
3	Presentation and Viva	(20)
ESE=40 (End Semester Exam marks) (External examination)	PA=60 (Practical marks) (Internal Examination/Guide)	**Total=100**

Phase – 2
(PROJECT-II)6th Semester

Sl.No.	Performance Indicator	Marks(PA)
1	Implementation /Execution	15

2	Results	15
2	Final report	20
4	Overall presentation	10
ESE=40 (External examiner)	**PA=60 (Internal Examiner/Guide)**	**Total=100**

D. Process to assess individual and team performance

*Project progress seminars are conducted once in every month by the team of their respective guide and senior faculty members.

*The project seminar talk and PPT should be given by all the project team members according to the division of project.

*Each student in the project team is assessed to their skill set to deliver the seminar, explain the concept and way to make project assess team to understand their work.

*Each individual and team performance is purely based on this project seminar presentation and the viva voice and progress work they show to their guide.

E. Quality of completed projects/working prototypes

Final project demo for the working prototype and the report are evaluated by a team of their respective guide, and HOD.

The projects are evaluated and are awarded internal assessment marks and external exam marks are graded according to the project contribution towards attainment of PO's and PSO's.

Best Project Evaluation scheme

- Innovations recognize the need for lifelong learning,
- Contemporary issues, organization of the report,
- Listening to and answering questions,
- Publications and internal and external marks,
- Project exhibition results

2.2.4. Initiatives related to industry interaction

MOU's with Industries

MOU's was done with industries to emphasize on

(a) Internship

(b) Project Workshop for Students

(c) Industrial Visits

(d) Students specific Training

(e) Faculty Development Program

Sl.no	Company Name	Date
1.	Kitech Industries India Ltd.,Rakholi,Dadra & Nagar Haveli-396240	09/06/2015
2.		15/06/2015

	Raj Petro Specialities Pvt.Ltd,Dadra & Nagar Haveli-396240	

Many invited talks and seminars from industry resource persons are arranged and department invites the participants from various department and also participants from other colleges.

2.2.5 Initiatives related to Industry Internship / summer training

The students are encouraged to take internship program during their semester break. Faculty members give their guidelines, suggestions and scope and contact details of an internship. They also help the students by interacting with the industrial experts, provide the students recommendation letters and other necessary supports. The alumni who are working in the industries and request them to provide necessary guidelines and supports for their junior's internship.

A. Industry training/tours for Students

Industry visits are organized every year in the respective course of studies. As Silvassa is having more than 3000 industries, it is a good experience for students to visit industry.

D. Student Feedback on Initiative

After each visit we will take student feedback on program /industrial visit. Feed back is considered to do further improvement for the same.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES

3.1. Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

The curriculum for Civil Engineering is set by Gujarat Technological University. The courses in the curriculum are such that they satisfy all the objectives and outcome defined for the program.

Correlation between POs PSO's

PO's	PSO1	PSO2
PO-1	3	
PO-2	2	
PO-3	2	
PO-4	2	2
PO-5		2
PO-6		1
PO-7		
PO-8		2
PO-9		2
PO-10		2

3.1.1.Course Outcomes(SAR should include course outcomes of one course from each semester of study ,however, should be prepared for all courses) **(05)**
Note: Number of outcomes for a course is expected to be around 6.

Course	Name of course	Statement (Course outcomes)
C101	Basics Mathematics (Code: 3300001)	*On completion of this course a successful candidate will* 1.Apply the concepts and principles of mathematics to

		solve simple engineering problems 2.Solve simple problems using concepts of Logarithms 3. Solve simultaneous equations using concepts of Determinants and Matrices 4. Solve simple problems using concepts of Trigonometry 5. Solve simple problems using concepts of Vectors 6. Calculate the surface area and volume of different shapes and bodies.
C102	English(code-3300002)	*On completion of this course a successful candidate will* 1. Use grammatically correct sentence in day to day communication 2. Use correct pronunciations and intonations. 3. Recapitulate orally the facts or ideas presented by the speaker 4. Speak briefly on a given topic fluently and clearly 5. Face oral examinations and interviews 6. Comprehend the given passages and summarize them.
C103	Environment Conservation & Hazard Management (Code: 3300003)	*On completion of this course a successful candidate will* 1. Take care of issues related to environment conservation and disaster management while working as diploma engineer. 2. Enhance knowledge about engineering aspects of Environment

		3. State the major causes of air, water and noise pollution 4. Explain the concepts of waste management and methods of Recycling 5. Describe the working of large wind turbines 6. Describe the salient features of solar thermal and PV systems
C104	Engineering Physics (Group-1) (Code: 3300004)	*On completion of this course a successful candidate will* 1. Apply principles and concepts of Physics for solving various Engineering Problems 2. Define inertia, momentum and impulse of force 3.Comprehend the concept of elasticity and Define Stress, Strain and Elastic limit. 4.Comprehend the phenomenon of surface tension and its applications 5.Explain modes of Transmission of heat and their Applications 6. Comprehend the concept of wave motion
C105	Basic Engineering Drawing (Code: 3300007)	*On completion of this course a successful candidate will* 1. Prepare engineering drawings manually with given geometrical dimensions using prevailing drawing standards and drafting instruments. . 2. Visualize the shape of simple object from orthographic views and vice versa. 3. Develop the ability to draw polygons, circles and lines

		with different geometric conditions 4.Able to draw engineering curves with proficiency and speed as per given dimensions 5. Draw the projection of points, lines and planes with Different conditions. 6. Find out true shape and size of a inclined line or plane
C106	Computer Application & Graphics (Code: 3300012)	*On completion of this course a successful candidate will* 1.Describe computer hardware and software 2.Work with graphics/ clipart 3.Start Computer aided drafting software (AutoCAD). 4. Use different arrays in existing 2D drawing. 5.Set properties of existing drawing entities as per requirement. 6. Use Blocks effectively to create perfect drawings
C201	CONTRIBUTOR PERSONALITY DEVELOPMENT (Code-1990001)	*On completion of this course a successful candidate will be able to* 1. face life challenges with confidence. 2. grow as a good human being. 3. communicate in a better way . 4.Develop personality .
C202	Advanced Mathematics(Group-2) (Code-3320003)	*On completion of this course a successful candidate will be able to:* *1.* Find the equation of line using the different forms 2. Solve the problem of function using the concept of Limit 3. Apply the differentiation to Velocity, Acceleration and

		Maxima & Minima 4. Apply the Integration for finding Area and Volume 5.Measure Central Tendency in given data 6. Measure Dispersion in given data
C203	Applied Mechanics (Code-3300008)	*On completion of this course a successful candidate will be able to:* *1*. Differentiate the systems of Units 2. Compute resultant & Equilibrium forces for given coplanar concurrent force system 3.Compute resultant & Equilibrium forces for given coplanar concurrent force system 4. Compute Centroid & centre of gravity in different shape and lamina 5. Calculate coefficient of friction for different surfaces 6. Compare reversible & irreversible Machines, evaluate the efficiencies of various simple machines
C204	Applied Chemistry(Group-I) (Code-3300009)	*On completion of this course a successful candidate will be able to* 1. Explain the crystal structure of metal and properties reflected by packing of atoms 2. Describe the importance of pH & and Perform its industrial application 3. Describe the different protective measures to prevent

		the corrosion 4. Explain the different methods for removal hardness in water 5. Explain setting and hardening chemistry of cemen 6. Describe different Ingredients of paints and their function
C205	Building Drawing (Code-3320601)	*On completion of this course a successful candidate will be able to:* 1. Draw various types of Projections 2. Apply the Bye laws and Principles of Planning for residential and other public buildings. 3. Prepare detail drawings for single and two storied residential building and public building 4.provide scope and provisions for building components and services 5. Develop concept plan of buildings 6.Use building drawing Symbols, Conventions and Abbreviations
C206	Basic Mechanical Engineering (Code-3320602)	*On completion of this course a successful candidate will* *1.* Identify mechanical related basic components and their uses 2. Describe the type of power transmission being used in electrical engineering 3. Explain different welding and gas cutting operation 4.Explain working of internal combustion engines

		5. Describe construction, working and applications of centrifugal and reciprocating pumps 6. Select proper material handling equipment for a given situation
C-207	Civil Engineering Workshop Practice (Code-3320603)	*On completion of this course a successful candidate will* *1.* Develop basic technical know-how of construction activities 2. Apply basic techniques for masonry and concreting works 3. Select appropriate tools and equipments involved in various activities for specific use 4. Install the plumbing and fixtures in buildings 5. Provide and fix the false ceiling , aluminum –glass work 6. Carry out whitewashing and painting
C301	BUILDING MATERIALS (Code: 3330601)	*On completion of this course a successful candidate will* *1.* Describe important properties of building materials used in civil engineering construction 2. Identify clay based products for use in building constructions based on its properties. 3. Select appropriate rock / stone products for different uses in building construction 4. Appreciate the uses of lime and Pozzolana products in building construction 5. Select appropriate ingredients of proper quality for cement concrete as per required BIS codes 6. Explain different types of advanced building materials

		and their uses in construction
C302	Construction Technology (Code-3330602)	*On completion of this course a successful candidate will* *1.* Develop concept of various types of components of building 2. Explain the failure of foundation and remedial measures 3. Develop concept of different types of brick and stone masonry 4. Able to know the different types of plumbing and electric fittings and laying procedure 5. Able to introduce different types of construction machinery, its features and Working 6. Describe concept about the maintenance work , know causes, types and its remedial measure
C303	Hydraulics (Code-3330603)	*On completion of this course* 1. Describe different types of pressure and methods of measurement 2. .Compute total Pressure and Centre of pressure 3. Apply Bernoulli's theorem to measure the pressure and Discharge. 4. Calculate discharge through notches and weir 5. Design pipeline network using formula and nomogram 6. Describe Procedure for measuring Velocity of flow
C304		*On completion of this course a student will be able to*

	Strctural Mechanics (Code-3330604)	*1.* Calculate Material Properties Under Longitudinal & Lateral Loads 2. Compute Moment of Inertia of Symmetric & asymmetric structural sections 3. Draw Shear Force & Bending Moment Diagram for Statically Determinate Beams 4. Apply Bending Theory 5. Analyse Statically Determinate Trusses 6. Calculate Load carrying Capacity of Columns & Struts
C305	Surveying (Code-3330605)	*On completion of this course a student will be able to* 1. Explain the basics of surveying. 2. Prepare drawing as per recorded measurements in the field book 3. Prepare drawing as per recorded and corrected measurements of bearings with chain and compass survey 4. Explain procedure for using the instruments and levelling staff and entering level in proper table 5. Find the areas from prepared drawings 6. Appreciate the applications of GPS in civil engineering
C401	STRUCTURAL MECHANICS-II (Code: 3340601)	*On completion of this course a student will be able to* 1. Analyze various types of statically indeterminate beams. 2. Compute slope and deflection in statically determinate beams.

		3. Evaluate the structures under direct and eccentric axial loading 4. Draw Shear Force & Bending Moment Diagram for Fixed Beams 5. Draw deflection curve in different types of beams under different loads and support conditions 6. Calculate Direct & Bending Stresses of various structural components
C402	Advanced Surveying (Code-3340602)	*On completion of this course a student will be able to* 1.Use Theodolite for the measurement of horizontal and vertical angle Calculate the height of objects through a trigonometrical levelling. 2. Explain the principles and various methodologies involved in techeometry 3. Retrieving the data and generate the drawings using advanced surveying 4.equipment & application software. 5. Operate theodolite and read horizontal and vertical angle 6. Explain the principles and various methodologies involved in techeometry
C403	BASIC TRANSPORTATION	*On completion of this course a student will be able to* *1.* Explain the importance of transportation system and its geometrical aspects

	ENGINEERING (Code: 3340603)	2. Comprehend the concept of construction and maintenance of roads, railways and bridges. 3. Perform the tests on the various materials used in the construction work of roads, railways and bridges. 4. Describe various types of road construction methods 5. Explain importance of drainage and its maintenance 6. . Explain requirement of track Maintenance
C404	Water Resources Management (Code-3340604)	*On completion of this course a student will be able to* 1. Discuss basic concepts of "Water Resources Management". 2.Estimate the surface runoff from given precipitation data. 3.Describe various types of survey investigations for reservoir planning 4. Design the appropriate rain water harvesting scheme and required structures for given conditions 5. Identify various agencies associated with Water Resource Management 6. Compute runoff using empirical formula.
C405	Soil Mechanics (Code-3340605)	*On completion of this course a student will be able to* *1.* Explain various engineering properties / characteristics of soil with respect to construction and engineering applications 2.Conduct different laboratory tests for determining engineering properties /parameters

		of a soil. 3.Evaluate engineering properties / characteristics of soil for their suitability to construction of engineering structures. 4.Explain essential features and requirements of site investigation with respect to soil 5. State the types of failures due to soil in Civil Engineering structure 6. Describe interrelationship between different index properties
C406	Computer Aided Drawing (Code-3340606)	*On completion of this course a student will be able to* 1.Apply basic CAD command to develop 2D and 3D drawings of residential & commercial building using AutoCAD. 2. Prepare detailed engineering and construction drawings and designs required for civil engineering activities. 3. Use advanced CAD commands for edit/modification of existing drawings as per needs and suggestions and print the same. 4. Prepare a simple building drawing file using basic draw and modify commands 5. Apply advanced command for edit /modification of

		drawing 6. perform rendering/shading on 3d drawing
C501	Design of Steel Strcture (Code-3350601)	1.Calculate Dead Load , Live Load and Wind Load on panel points of a Roof Truss as per IS-875- 1984 2. Design Bolt Connection of Angle Section to Gusset Plate & Welded Connection of Angle Section to Gusset Plate , Lacing System (Single or Double) for Built up Column , Batten System for Built up Column , laterally Restrained Simply Supported beam, Purlin made up Angle Section , Slab Base Foundation under Axially Loaded Column made up of Single H Section 3. Analyze and Design Axially Loaded Tension Member made up of Angle Section , Strut made up of Angle Section , Axially Loaded Column 4. Analyze and Design Axially Loaded Tension Member made up of Angle Section 5. Solve Numerical on Strut made up of Single Angle, Double Angle same and either side of G.P as per 1.2 & 1.3 Built up Column , Effective Length of Column as per Table 11, IS-800-2007 6. Design of Slab Base Foundation under Axially Loaded Column made up of Single H Section
C502	Concrete Technology	1.Evaluate physical properties of cement, sand and aggregates. 2. Describe proper method for making and curing of concrete.

	(Code-3350602)	3.Measure important properties of fresh and hardened cement concrete including NDT. 4. Ex plain properties of va rious t ypes o f Admix tures and the ir utilit y 5. Design Concrete Mix as per IS method vi. Explain various types of special concrete and their use. 6. Explain methods to prevent and repair different types of the crack 7. Prepare summary of at least one research paper on concrete from any journal of civil engineering
C503	WATER SUPPLY & SANITARY ENGGINEERING (COURSE CODE: 3350603)	*On completion of this course a student will have* 1.Select appropriate treatment to raw water useful for domestic as well as construction purpose. 2. Maintain the pipe-network for water supply and Sewage disposal effectively. 3.Calculate and Estimate the impurities present in water used for domestic as well as construction works. 4. Prepare lay out plan and maintain water distribution and sewer-networks. 5. Test raw water as per the standard practices 6. Plan and implement house plumbing work effectively.
C504	ESTIMATING,	*On completion of this course a student will have* **1**. Explain types of estimate and duties of an Estimator

	COSTING & VALUATION (COURSE CODE: 3350604)	2. Undertake rate analysis of civil engineering works 3. Determine the rates of various items of civil works 4. Calculate estimated cost of civil construction projects 5. Evaluate the actual value of any property 6. State the methods of calculating earthwork for roads and canals
C505	ADVANCED CONSTRUCTION TECHNOLOGY (COURSE CODE:	*On completion of this course a student will have* 1. Report the important operations of construction activities they visited where new techniques, machines and equipment are used. 2. Describe important aspects , operations and safety points pertaining to: a. 'Deep Excavations'; b. Pile foundations ; c. Coffer Dams; d. Caissons; e. Drilling and Blasting 3. Discuss purpose, types, materials, design issues, and erection of temporary structures for construction activities 4. Describe equipment and tackles used , problems encountered and their solutions in erection of steel structures 5. .Describe problems faced and solutions adopted in erection of various types of steel structures such as roof truss, bridge girders.

		6. Describe cantilever method of Pre-stressed concrete bridge Construction
C506	PROJECT-I (Code-3350609)	*On completion of this course a student will have* 1.Identify problem definition(Title of Project) 2.Can do IDP(Industry defined Project) 3.Can do UDP(User defined project) 4.Perform market survey for raw materials to be used for project work. 5.Maintain log book of work assignment/performed. 6.Work as a team for a specific goal 7.Develop entrepreneurship and self-employment abilities to start any venture 8. Plan, use, monitor and control resources optimally and economically.
C601	: DESIGN OF REINFORCED CONCRETE STRUCTURES (COURSE CODE: 3360601)	*On completion of this course a student will be able to:* 1.Develop methods of RCC design using concrete and steel properties 2. Analyse & Design Singly Reinforced Rectangular Section (SRRS) under Flexure 3. Design Stirrups for R.C Rectangular Beam 4. Apply design conditions of IS 456-2000 for various elements of structures 5. Perform analysis for Tee Beam for Flexure, R. C. C.

		Column and Isolated Footing 6. Design & Detail Cantilever Slab , One Way Simply Supported Slab , One Way Continuous Slab & Two Way Simply Supported Slab
C602	CONSTRUCTION QUALITY CONTROL & MONITORING (COURSE CODE: 3360602)	*On completion of this course a student will have* 1.Apply total quality management in civil construction. 2. Check the quality in civil construction works. 3. Identify the variations in quality of civil works. iv. Use various standard codes in civil construction works. 5. Design energy efficient buildings. 6. Explain the main features of ISO9000 and ISO14000 standards.
C603	CONSTRUCTION PROJECT MANAGEMENT (COURSE CODE: 3360603)	*On completion of this course a student will have able to:* 1. Describe construction management functions, various organisation structures and duties of various construction team. 2. Explain tendering and accounting process. 3. Develop the CPM and PERT network of various construction activities. 4. Show leadership skills required to manage various construction resources and achieve targets. 5. Show professional ethics and concern for safety during various construction works.

		6. Use management information system.
C604	BUILDING SERVICES (COURSE CODE: 3360604)	*On completion of this course a student will have able to:* 1.Manage building services provisions in big construction sites. 2. Synchronize the construction activities with installation of building services. 3.Select the suitable electrical as well mechanical services for particular requirements of buildings. 4. Ensure green building applications to the new constructions. 5. Plan various types of mechanical services as per requirements of building 6. Plan for Rain Water Harvesting in the new buildings
C605	MAINTENANCE & REHABILITATION OF STRUCTURES (COURSE CODE: 3360605)	*On completion of this course* 1.Assess the health condition of structures. 2. Inspect and evaluate damage structures. 3. Test the assess the condition of properties of existing concrete structures. 4. Implement the techniques for repairing of concrete structures. 5. Dismantle and demolish structures which cannot be repaired in an environment friendly, with maximum saving of materials and in a safe way. 6. Explain the Repair work of various component in existing

		concrete structure
C606	PROJECT - II (COURSE CODE: 3360613)	*On completion of this course student will be able to:* 1.Know the questions to which he is finding answers through experimental work. Perform the practical work with appropriate accuracy. 2. Reduce the experimental readings to the form of answers required. 3. Understand clearly what the reader will want to know. 4. Give brief but clear answers. 5. Convince the reader that the answers are valid. 6 Present a reasoned discussion of the significance of the answers he offers. 7. Plan, use, monitor and control resources optimally and economically. 8. Identify the problem and apply innovative, creative and logical approach for problem solving.

3.1.2 CO-PO Matrices of courses selected in 3.1.1(six matrices to be mentioned; one per semester from 1st to 6th semester) **(5)**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
C101	√	√							√	√
C203	√	√	√		√	√	√	√	√	
C302	√	√	√	√			√	√	√	
C401	√	√	√		√	√	√	√	√	√
C504	√	√		√	√	√	√	√	√	
C606	√	√	√	√	√	√	√	√	√	√

3.1.3.Program level Course-PO matrix of all courses INCLUDING first year courses **(10)**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
C101	√	√							√	√
C102					√	√	√	√	√	√
C103	√	√	√	√	√	√	√	√	√	√
C104	√	√				√	√			√
C105	√	√	√	√	√		√	√		√
C106	√	√	√	√	√					√
C201	√	√			√	√	√	√	√	
C202	√	√							√	
C203	√	√	√		√	√	√	√	√	
C204	√	√	√		√	√	√	√	√	√
C205	√	√	√	√				√		√
C206	√	√	√	√	√	√		√	√	
C207	√	√	√	√			√	√	√	√
C301	√	√	√	√			√	√	√	
C302	√	√	√	√			√	√	√	
C303	√	√	√			√	√	√	√	√
C304	√	√	√			√	√	√	√	√
C305	√	√	√		√	√	√	√	√	
C401	√	√	√		√	√	√	√	√	√
C402	√	√	√		√	√	√	√	√	
C403	√	√	√	√	√	√	√	√		
C404	√	√	√	√	√		√	√	√	
C405	√	√	√	√	√		√	√	√	√
C406	√	√		√			√	√		
C501	√	√		√	√			√		
C502	√	√	√	√	√	√	√	√		
C504	√	√		√	√	√	√	√	√	
C505	√	√	√	√	√	√	√	√		
C506	√	√	√	√	√	√	√	√	√	√
C601	√	√	√	√	√	√	√	√		√
C602	√	√	√	√		√	√	√		√
C603	√	√	√	√	√	√	√	√	√	√
C604	√	√	√	√	√	√	√	√	√	√
C605	√	√		√	√	√	√	√	√	√
C606	√	√	√	√	√	√	√	√	√	√

Course	PSO1	PSO2
C101	√	√
C102		√
C103	√	√
C104	√	√
C105	√	√

C106	√	√
C201	√	√
C202	√	√
C203	√	√
C204		√
C205	√	√
C206		√
C207	√	√
C301	√	√
C302	√	√
C303	√	√
C304	√	√
C305		√
C306	√	√
C307	√	√
C401	√	√
C402	√	√
C403	√	√
C404	√	√
C405	√	√
C406		√
C501	√	√
C502	√	√
C503	√	√
C504		√
C505		√
C506		√
C601	√	√
C602	√	√
C603		√
C604	√	√
C605	√	√
C606	√	√

3.2Attainment of Course outcomes (40)

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of course outcome is based **(10)**

Assessment Tools

Direct Assesments

* Semester End Exams(SEE) conducted by GTU and evaluated by GTU

* As the information on performance in SEE on each student in individual COs is not available, the Institution/Department has to take that attainment(%marks/CGPA) for all COs of the course is the same.

*Continuous Internal Evaluation(CIE)

*The proportional weightage of CIE:SEE is 30:70

*The number of assessment instruments used for CIE is decided by the instructor and/or Department and some times by GTU.

*Poject/Project Reports

*Lab Records

Indirect Assessments

*Instructor evaluation Reports

*Department performance Reports

*Employers survey

3.2.2 Record the attainment of course outcomes of all courses with respect to set attainment levels **(30)**

S: Set level A: attainment level

Note: Programs may decide their weightages for **University exams** and Internal assessment with due justification.

Course code	Semester	Course Name	CO attainment level					
			CAY(2016)		CAY(2015)		CAY(2014)	
			S	A	S	A	S	A
C-106	1	Computer application & Graphics	60%	88.33	60%	81.25	60%	97.91
C-205	2	Building Drawing	60%	52.38	60%	60	60%	32.69
C-304	3	Strctural Mechanics	60%	19.05	60%	42.10	60%	48.97
C-404	4	Water Resources Management	60%	80.65	60%	87.09	60%	86.66
C-502	5	Concrete Technology	60%	61.54	60%	68.57	60%	92.00
C-603	6	Construction Project Management	60%	94.12	60%	100	60%	83.33

3.3 **Attainment of Program outcomes & Program Specific outcomes (40)**

3.3.1. Describe assessment tools and processes used for assessing the attainment of each POs and PSOs as mentioned in Annexure1 **(10)**

*The students expected to be reasonably proficient with each of the program outcomes

*The achievement of program outcomes are assessed with the help of course outcomes of the relevant courses through different methods.

*The final grading is based on mid-semester and final-semester and internal assessment.

*The results are documented and maintained by the G.T.U.(University) for all its affiliated Institutes.

*The results are displayed on GTU website so that the students and their parents have an easy and all time access to the progress of students.

Assessment			
Direct Assessment		**Indirect Assessment**	
Theory	Term work	Parents	Recent pass out students,Alumnies
Oral	Practical	industry	Current students
SEMESTER END	SEMESTER MID, SEMESTER END	ONCE IN A YEAR	

3.3.2. Provide results of evaluation of each POs & PSOs(30)

Sem	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2
Ist	C101	3	2									2	2
	C102					2	2	2	2	3	2		
	C103	2	2	2	2	3	3	3	2	3	2	2	2
	C104	3	2				1	1			1	1	1
	C105	3	2	3	3	2		2	1		1	2	2
	C106	1	2	3	3	2					2	2	3
IInd	C201	1	2		1	2	2	3	3	3	3	2	2
	C202	3	2		2					2		2	
	C203	3	2	2		2	2	3	3	2		2	2
	C204	2	2	1	2	2	2	2	2	2			2
	C205	3	2	2	2				2		2	2	
	C206	3	2	2	2	2	2		2	1		1	2
	C207	2	2	2			1	2	2	2	2	2	3
IIIrd	C301	2	3	3	3			2	2	2		2	3
	C302	2	3	3	3			1	1	2		2	2

	C303	2	3	3			3	2	2	2	2	2	3
	C304	2	3	3			2	1	2	2	2	2	3
	C305	2	2	3		2	2	2	1	2	2		2
IV th	C401	2	3	3		2	2	2	3	2	2	3	3
	C402	2	3	3		2	2	1	2	2		3	2
	C403	2	3	2	2	2	1	2	1			2	2
	C404	2	3	3	3	2		1	1	2	2	3	2
	C405	2	3	3	2	2	2	2	3	2		2	2
	C406	2	3		2	2			3			2	2
Vth	C501	3	3		3			1	2				2
	C502	2	3	3	3	1	1	1	1			2	2
	C503	2	3	3	3	2	2	2	3	2	2	2	3
	C504	2	3		2	2	2	2	3	1			3
	C505	2		1	2	2	2	3	1	3	3	2	2
	C506	2	2	2	2	2	2	3	3	3	3	3	3
VIth	C601	2	3	3	3	2	2	2	2	2	2	2	2
	C602	2	3	3	3		1	2	1		2	2	2
	C603	2	2	2	2	2	3	3	3	3	3	2	2
	C604	2	2	2	2	2	1	3	3	2	2	3	3
	C605	2	2		2	2	2	2	1	2	2	3	3
	C606	3	3	3	3	3	3	3	3	3	3	3	3
Direct attainment		77/35= 2.2	85/34= 2.5	68/27= 2.51	52/26 =2.0	51/25= 2.04	52/26= 2.0	61/30= 2.033	66/32= 2.06	57/27= 2.11	48/23 =2.086	67/31 =2.161	77/33 =2.33
Indirect Attainment		2	2	2	2	2	2	2	2	2	2	2	2
Total Attainment score= 80% of Direct attainment + 20% of Indirect Attainment		2.16	2.4	2.408	2.0	2.032	2.0	2.026	2.048	2.088	2.068	2.128	2.264

Criterion4	**Students performance**	**200**

Intake Information

Item	CAY	CAYm1	CAY m2
Sanctioned intake strength of the program(N)	60	60	60
Total number of students ,admitted through state level councelling	-----	-----	----
Number of students ,admitted through Institute level quota(N2)	56	57	50
Number of students ,admitted through lateral entry(N3)	----	-----	----
Total number of students admitted in the program (N1+N2+N3)	56	57	50

Year of Entry	N1+N2+N3 (As defined above)	Number of students who have successfully passed without backlogs in any year of study		
GTU Summer exam		Ist Year (2nd Sem) (passed/appeared)	IInd Year(4th Sem) (passed/appeared)	IIIrd Year(6th sem) (passed/appeared)
CAY(2016)	56	06/(42)	10/(31)	23/(34)
CAY m1(2015)	57	02/(45)	18/(31)	14/(24)
CAYm2(LYB)*(2014)	50	17/(53)	11/(30)	08/(18)
CAY(LYB m1)(2013)	50	--no record--	--no record--	--no record--
CAY (LYBm2)(2012)	--no record--	--no record--	--no record--	--no record--

Year of Entry	N1+N2+N3 (As defined above)	Number of students who have successfully passed (Students having backlogs in stipulated period of study)		
GTU Summer exam		Ist Year (passed with backlog/appeared)	IInd Year (passed with backlog/appeared)	IIIrdYear (passed with backlog/appeared)
CAY(2016)	56	36/42	21/31	11/34
CAY m1(2015)	57	43/45	13/31	10/24
CAYm2(LYB)*(2014)	50	36/53	19/30	10/18
CAY(LYB m1)	50	--no record	--no record--	--no record--
CAY (LYBm2)	--no record--	--no record	--no record	--no record--

4.1 Enrolment Ratio

Enrolment ratio=N1+N2/N

Sl.No.	2016-17	2015-16	2014-15
Enrolment Ratio	0.933=93%	0.95=95%	0.833=83%

Item Students enrolled at the first year level on average basis during the period of assessment	Marks
>=90% students	20
>=80% students	18
>=70% of students	16
>=60% of students	12
>=50%students	08
<50% students	0

4.2Success rate in stipulated period of the program

4.2.1 success rate without backlogs in any year of study**(40)**

SI=(Number of students who have passed from the program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year of lateral entry)

Average SI=Mean of success Index (SI)for past three batches

Success rate without backlogs in any year of study =40xAverage SI

Item	Latest passed batch (2016) admitted in 2013	Latest passed batch minus 1 Batch(2015) admitted in 2012	Latest passed batch minus 2 Batch(2014) admitted in 2011
Total number of students (admitted through state level councelling+admitted through Institute level quota+admitted throughlateral entry) N1+N2+N3	58	60	51
Number of students who have passed(Diploma Engg.) without backlogs in the stipulated period	23	14	08
Success Index(SI)	23/58 =0.3965	14/60=0.2333	08/51=0.1568
Average SI	0.2622		

Success rate= 40x0.2622=**10.488**

4.2.2 Success rate with backlog in stipulated period of study **(20)**

SI=(Number of students who have passed from the program without backlog)/(Number of students admitted in the first year of that batch and admitted in 2nd year of lateral entry)

Average SI=Mean of success Index (SI)for past three batches

Success rate =20xAverage SI

Item	Latest passed batch (2016) admitted in 2013	Latest passed batch minus 1 Batch(2015) admitted in 2012	Latest passed batch minus 2 Batch(2014) admitted in 2011
Total number of students (admitted through state level councelling+admitted through Institute level	58	60	51

quota+admitted throughlateral entry) N1+N2+N3			
Number of students who have passed in the stipulated period	38	15	18
Success Index(SI)	38/50=0.76	15/50=0.3	18/50=0.36
Average SI	0.473		

Success rate =20xAverage SI

=20X0.473=**9.46**

Note: If 100% students clear without any backlog then also total marks scored will be 60 as both 4.2.1 and 4.2.2. will be applicable simultaneously.

4.3 Academic Performance in final year **(15)**

Academic performance level=1.5xAverage API (academic performance index)

API=(Mean of final year Grade point average of all successful students on a 10 point scale) x(successful students /number of students appeared in the examination)

successful students are those **who passed in all the final year courses**

Academic performance	CAY(2016)	CAYm1(2015)	CAY m2(2014)
Mean of CGPA or Mean percentage of all successful students	7.1443	7.256	7.05125
Total number of successful students	23	14	08
Total number of students appeared in the examination	34	24	18
API=x*(y/z)	AP1= 7.1443X(23/34)=4.832	AP2= 7.256X(14/24)= 4.2326	AP3=7.05125X(8/18)= 3.1338
Average API=(AP1+AP2+AP3) /3	4.0661		

Academic performance level=1.5xAverage API (academic performance index)

=1.5 x4.0661=**6.09915**

4.4 Academic performance in second year(20)

Academic performance level=2.0*Average API

API=(Mean of second year Grade point average of all successful students in second year /10)x(successful students /number of students appeared in the examination)

Successful students are those who are permitted to proceed to the final year

(**As per GTU(University) academic norms the student having total 04 backlogs after 4th sem. exam(2nd year) will be promoted to 5th semester(3rd year). Therefore total successful students are mentioned as those with total=04 backlogs after 4th semster(2nd year) exam.*)

Academic performance	CAY(2016) IVth Sem	CAYm1(2015) IVth Sem	CAY m2(2014) IVth Sem
Mean of CGPA or Mean percentage of all successful students(x)	7.0	7.0	7.0
Total number of successful students(y)	(26)	(31)	(25)
Total number of students appeared in the examination(z)	31	31	30
API=x*(y/z)	AP1= 7 x 26/31=5.87	AP2= 7x 31/31=7.0	AP3= 7 x25/30=5.833
Average API=(AP1+AP2+AP3) /3	6.234		

Academic Performance level= 2.0 x(Average API)=2 X 6.234=**12.468**

***As CGPA data of students other than pass outs in final semester(year) are not provided by GTU as a consolidated list, approximately 7.0 CGPA is considered for calculation for **2nd year** from the average CGPA of data of final year pass out students of last 03 years,i.e.,2016,2015,2014*

4.5 Academic performance in **First year**

academic performance level=2.0*Average API

API=(Mean of 1st year Grade point average of all successful students on a10 point scale)x(successful students /number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year

(**As per GTU(University) academic norms the student having total 04 backlogs after 2nd sem. exam(1st year) will be promoted to 3rd semester(2nd year). Therefore total successful students are mentioned as those with total(04 backlogs) after 2nd semester(1st year) exam.)*

Academic performance	**CAY(2016-17) IInd Sem**	**CAYm1(2015-16) IInd Sem**	**CAY m2(2014-15) IInd Sem**
Mean of CGPA or Mean percentage of all successful students(x)	7.0	7.0	7.0
Total number of successful students(y)	(42)	(38)	(49)
Total number of students appeared in the examination(z)	42	45	53
API=x*(y/z)	AP1= 7 x (42 /42)	AP2=7x (38/45)=5.9111	AP3=7x (49/53)=6.471
Average API=(AP1+AP2+AP3) /3	6.4607		

Academic Performance level= 2.0 x(Average API)=2 X 6.4607=**12.9214**

***As CGPA data of students other than pass outs are not provided by GTU as a consolidated list, approximately 7.0 CGPA is considered for calculation for **1st year** from the average **CGPA of data of final year pass out students** of last 03 years,i.e.,2016,2015,2014*

4.6 Placement and Higher Studies(40)

Assessment points =40X(1.25X +Y)/N where, X=Number of students placed in companies or Government sector through on/off campus recruitment

Y=Number of students admitted to higher studies

N= Number of final year students

Item	**Latest passed batch (2016-17)**	**Latest passed batch minus 1(2015-16)**	**Latest passed batch minus 2(2014-15)**
Total no. of final year students	27	14	08
No. of students placed in companies or Govt. Sector(X)	15	--	---
No. of students admitted to higher studies(Y)	12	--	--
1.25X + Y	30.75	---	---
Placement index(1.25X + Y)/N	30.75/27=1.138	---	----
T=Average of (1.25X + Y)/N	1.138(as data of CAYm1,CAYm2 is not available)	---	---

Assessment=40x T(To be limited to 40)	40*1.138=45.52=40	---	---

***** The pass out students data for placement and higher studies for 2016-17 is collected from GTU academic cell of the Institution, where students mentioned their preference.

4.7 Professional activities (20)

4.7.1 Professional societies/student chapters and organizing technical events(15)

The institution has became member of AMIE(Associate member of Institution of Engineers) in 26/04/2016.The institute organizes Project Melas from 2016 ,where Civil Engineering final year projects have been displayed for the public and Industry.

4.7.2 Publication of technical magazines, News letters, etc.(05)

No such activity done yet at the the Institution level.

CRITERION 5	Faculty Information and Contributions	150

Faculty Information: CAY 2016-17

Name of the Faculty Member	Qualification,Board and year of Graduation	Designation of Teaching & joining the Institution	Distribution of Teaching load(%)			Academic Research		Years of Experience
			I year	II year	III year	Research paper publications	Faculty receiving M.Tech/Ph.D.during the assesment year	
Shri D.L.Sahu	M.E.(Civil Strcture)-1998,	Lecturer in Civil Engg. D.O.J.:30/09/2000	20	40	40	----	------	30 years (Teaching)
Dr.B.Jha	Ph.D.(Engg.)-2013-IIT,Bombay,	Lecturer in Civil Engg. D.O.J.:23/10/2000	20	40	40	08	----	23 years 11 months(Teaching)
Shri K.B.patel	B.E.(Civil Engg.)-1991-S.P.University,VV Nagar,Gujarat	Lecturer in Civil Engg. D.O.J.:07/08/2000	20	40	40	----	------	19 years years(Teaching)
Shri R.N.D.Sharma	M.Tech.(Water Resources)-NIT,Surat,	Lecturer in Civil Engg. D.O.J.:05/04/2002	20	40	40	---	M.Tech(Civil Engg.)-2014	25 years 07 months(Teaching),03 years-Higher studies
Shri Mitesh Billiwalla	B.E.(Civil Engg.)-2011-Sardar.Patel	Lecturer in Civil Engg. D.O.J.: 16/01/2012	20	20	20	-----	------	4 years 08 months(Teachin

	University, VV Nagar, Gujarat							g)
Dr.J.B.Rana	Ph.D(Chemistry)-South Gujarat University-1993	Lecturer in Chemistry D.O.J.: 01/03/2000	50	---	----	04	---	23 years(Teaching)
Shri D.N.Shinde	M.Sc.(Maths)-Pune University-1989	Lecturer in Mathematics D.O.J.: 08/05/2001	17	--	---	---	----	27 years(Teaching)
Shri A.D. Desai	M.Sc.(Physics)-Gujarat Univesity-1993	Lecturer in Physics D.O.J.: 08/05/1996	17	---	---	---	---	22 years(Teaching)
Shri S.C. Chouhan	M.A.(English)-Pune University-2011	Lecturer in English D.O.J.: 26/02/2015	17	--	--	--	---	05 years(Teaching)
Shri V.Dhoke	B.E.(Mech.Engg.)- Sant. Gadge Baba Amrabai University-.),-2008-MBA-Jaipur National University	Lecturer in Mech.Engg. D.O.J.: 16/01/2012	--	20	--	--	---	05 years(Teaching)
Shri J.K.Rohit	B.E.(Elect.Engg.)-Gujarat Univ.-2004	Lecturer in Elect.Engg. D.O.J.: 03/09/2007	--	20	--	---	----	09 years(Teaching) 03 years(Industry)

Faculty Information: CAY m1 2015-16

Name of the Faculty Member	Qualification,Board and year of Graduation	Designation of Teaching load(%)joining the Institution	Distribution of Teaching load(%)			Academic Research		Years of Experience
			I year	II year	III year	Research paper publications	Faculty receiving M.Tech/Ph.D.during the assesment year	
Shri	M.E.(Civil	Lecturer in	20	40	40	---	----	29 years

D.L.Sahu	Strcture)-1998,B.E.(Civil Engg.)-1986	Civil Engg. D.O.J.:30/09/2000						(Teaching)
Dr.B.Jha	Ph.D.(Engg.)-2013,IIT, Bombay,	Lecturer in Civil Engg. D.O.J.: 23/10/2000	20	40	40	03	----	22 years 11 months(Teaching)
Shri K.B. patel	B.E.(Civil Engg.)-1991-SardarPatel University, VV Nagar, Gujarat	Lecturer in Civil Engg. D.O.J.: 07/08/2000	20	40	40	---	-----	18years years(Teaching)
Shri R.N.D. Sharma	M.Tech.(Water Resources)-NIT,Surat,	Lecturer in Civil Engg. D.O.J.: 05/04/2002	20	40	40	----	----	24 years 07 months(Teaching),03 years-Higher studies
Shri Mitesh Billiwalla	B.E.(Civil Engg.)-2011- Sardar Patel University, VV Nagar, Gujarat	Lecturer in Civil Engg. D.O.J.:16/01/2012	20	40	40	----	----	03 years 08 months(Teaching)
Dr.J.B.Rana	Ph.D(Chemistry)-South Gujarat University-1993	Lecturer in Chemistry D.O.J.: 01/03/2000	30	---	----	--	----	22 years(Teaching)
Shri D.N.Shinde	M.Sc.(Maths)-Pune University-1989	Lecturer in Mathematics D.O.J.: 08/05/2001	17	--	---	---	---	26 years(Teaching)
Shri A.D.Desai	M.Sc.(Physics)-Gujarat Univesity-1993	Lecturer in Physics D.O.J.: 08/05/1996	17	---	---	---	----	21 yars(Teaching)
Shri	M.A.(Englis	Lecturer in	17	--	--	--	----	03

S.M.Chouhan	h)-Pune University-2011	English D.O.J.: 26/02/2015						Years 8months (Teaching)
Shri V.Dhoke	B.E.(Mech.Engg.)- Sant. Gadge Baba Amrabai University-.),-2008-MBA-Jaipur National University	Lecturer in Mech.Engg. D.O.J.: 08/05/2012	--	20	--	--	----	04 years(Teaching)
Shri J.K.Rohit	B.E.(Elect.Engg.)-Gujarat Univ.-2004	Lecturer in Elect.Engg. D.O.J.: 08/05/2001	--	20	--	---	----	08 years(Teaching) 03 years(Industry)

Faculty Information: CAY m2 2014-15

Name of the Faculty Member	Qualification,Board and year of Graduation	Designation of Teaching & joining the Institution	Distribution of Teaching load(%)			Academic Research		Years of Experience
			I year	II year	III year	Research paper publications	Faculty receiving M.Tech/Ph.D.during the assesment year	
Shri D.L. Sahu	M.E.(Civil Strcture)-1998,B.E.(Civil Engg.)-1986	Lecturer in Civil Engg. D.O.J.:30/09/2000	20	40	40	---	----------	28 years (Teaching)
Dr.B.Jha	Ph.D.(Engg.)-2013,IIT, Bombay,	Lecturer in Civil Engg. D.O.J.: 23/10/2000	20	40	40	03	----------	21 years 11 months(Teaching)
Shri K.B.patel	B.E.(Civil Engg.)-1991-S.P.University,VV Nagar,Gujar	Lecturer in Civil Engg. D.O.J.:07/08/2000	20	40	40	----	----------	17 years years(Teaching)

	at							
Shri R.N.D. Sharma	M.Tech.(Water Resources)-NIT,Surat,B.E.(Civil.Engg.)	Lecturer in Civil Engg. D.O.J.:05/04/2002	20	40	40	----	M.Tech.-Civil Engg.-(2014-15)	23 years 07 months(Teaching),03 years-Higher studies
Shri Mitesh Billiwalla	B.E.(Civil Engg.)-2011-S.P.University,VV Nagar,Gujarat	Lecturer in Civil Engg. D.O.J.:16/01/2012	20	20	20	----	---------	2years 08 months(Teaching)
Dr.J.B. Rana	Ph.D(Chemistry)-South Gujarat University-1993	Lecturer in Chemistry D.O.J:01/03/2000	50	--	---	---	-----	21 years(Teaching)
Shri D.N. Shinde	M.Sc.(Maths)-Pune University-1989	Lecturer in Mathematics D.O.J.: 01/03/2000	17	---	---	----	-----	25 years(Teaching)
Shri A.D. Desai	M.Sc.(Physics)-Gujarat Univesity-1993	Lecturer in Physics D.O.J.: 01/07/1994	17	---	---	---	----	22 yars(Teaching)
Shri S.M. Chouhan	M.A.(English)-Pune University-2011	Lecturer in English D.O.J.: /05/2014	17	---	----		----	05 years(Teaching)
Shri V.Dhoke	B.E.(Mech.Engg.)- Sant. Gadge Baba Amrabai University-.),-2008-MBA-Jaipur National University	Lecturer in Mech.Engg. D.O.J.:08/05/2001	--	20	--	--	----	03 years(Teaching)
Shri J.K. Rohit	B.E.(Elect.Engg.)-Gujarat	Lecturer in Elect.Engg. D.O.J.:08/0	--	20	--	---	----	07years (Teaching)

	Univ.-2004	5/2001						03 years(Industry)

5.1 Student faculty ratio(SFR)(15)+ Availability of HoD(5); (20)

S.F. Ratio=N/F;F=No. of Faculty= a+b-c) for every assessment year

a=Total no. of fulltime regular faculty serving fully to all years of his program

b=Total no. of full-time equivalent regular faculty (considering fractional load) serving this program from other programs

c=Total no. of fulltime equivalent regular faculty(considering fractional load) of this program serving other programs

Year	N	F=(a+b-c)	SFR=N/F
CAY(2016-17)	60+2x60=180	05+06-02=09	20
CAYm1(2015-16)	60+2x60=180	05+06-02=09	20
CAYm2(2014-15)	60+2x60=180	05+06-02=09	20
Average SFR			20

a=05,**b**=05(01=physics,01=maths,01=English,01=Mech.Engg.,01=Elect.Engg.,01=Chemistry)

c=02(01=Mech.Engg.,01=Elect. Engg.)

Marks to be given proportionately from a maximum of 15 to minimum of 10 for average SFR of 20:1 to 25:1, and zero for average SFR higher than 25:1

HOD is to be over and above 1;20 ratio as per AICTE guidelines for all the assessment years ,otherwise 0 marks.

HOD (SFR)=180:1

5.2Faculty Qualifications **(20)**

FQ=2*(10X + 7Y)/F where x is no of faculty with M.Tech and y is no. of Faculty with B.Tech.. F is no. of faculty required to comply 1:20 faculty student Ratio

x=03+01=04,y=02+03=05,F=09,FQ= 2x(10x04+ 07x 05)/09

FQ=16.66

Year	**Y (B.Tech) or equivalent**	**X (M. Tech) or Ph.D(Humanity subjects)**	**F**	**FQ = 2* (10X+7Y)/F**
2016-17	05	04	9	16.666
2015-16	05	04	9	16.666
2014-15	05	04	9	16.666

5.3 Faculty Retention **(20)**

>=90% faculties retained during the period of assessment (2016-17)keeping CAYm2(2014-15) as base year

total faculties in 2014-15=05+04=09

Total faculties in 2016-17=05+04=09

5.4 Faculty as participants in faculty development/training activities (30)

Name of Faculty	Max 5 per faculty		
	CAY m2(2014)	CAY m1(2015)	CAY(2016)
Shri D.L.Sahu	-----	-----	---
Dr.B.Jha	----	01(BOAT Principal-TPO meet)	01(Industry-Institute meet)
Shri K.B.Patel	-----	------	-----
Shri R.N.D.Sharma	---	----	-----
Shri M.S.Billiwalla	------	------	-------
SUM		01	01
RF=Number of faculty required to comply with 20:1 student -faculty ratio as per 5.1	09	09	09
Assessment=6x sum/0.5SRF(marks limited to 30)	0	1.33	1.33
Average assessment over three years (marks limited to 30)=0.886			

5.5 Product development, consultancy ,manufacturing contracts, Testing contracts(20)

Not Applicable

5.6 Faculty performance appraisal and development system(FPADS) (30)

Annual performance appraisal Report form is being filled up by every faculty as per the latest AICTE 6th pay AICTE format. The APR is reviewed by Director of Technical Education, Dadra & Nagar Haveli and gradation is remarked. The APR is used during CAS promotion and yearly increment given to faculties.

5.7 Implementation of Career Advancement Scheme(CAS) (10)

The CAS has been implemented at Dr. B.B.A. Govt. Polytechnic from 01.01.1996.

(i)The AICTE 5th pay CAS and AICTE 6th pay CAS has been implemented and faculties got promotion to Lecturer (Sr.Scale), Lecturer (Sel.Grade) in 5th pay AICTE.

(ii) Lecturers got promotions as per 6th pay AICTE CAS and got promotion upto PB-4 with AGP=9000.

CRITERION 6	Facilities and Technical Support	100

6.1 Availability of adequate ,well equipped classrooms to meet the curriculum requirements(10)

Sl.No.	Class Room	Carpet Area	Seating Capacity	Availability of OHP	Other Smart facilities	Weekly utilisation
1	Room No-13	30ftx 20ft	90	01	White board with marker pen,black board	Yes ,06 days /week
2	Room No.14	30ftx 20ft	90	01	White board with marker pen,black board	Yes ,06 days /week
3	Room No-15	30ft x 20 ft	90	01	White board with marker pen,black board	Yes ,06 days /week

6.2. Availability of adequate ,well equipped Workshops to meet the curriculum requirements **(10)**

Sl.No.	Name of the Workshop	No. of students/batch	Name of the Power tools/machine tools	Weekly utilisation	Areas in which students expected to have enhanced learning	Relevance to PO/PSO
1	Fitting	30	Bench vice,	06 days	Project	PO1,PO2,

	Section		hammer	/week	Room(old projects),Reading room (adjacent to library)	PO4,PO8
2	Tin Smithy Section	30	Anvil, hammer, furnace	06 days /week	Project Room(old projects),Reading room (adjacent to library)	PO1,PO2, PO4,PO8
3	Welding section	30	Arc welding machine, welding rod, oxyacetylene welding machine	06 days /week	Project Room(old projects),Reading room (adjacent to library)	
4	Machine shop	16	Single point cutting tool,milling cutter,grinder, (lathe machine)turning tools	06 days /week	Project Room(old projects),Reading room (adjacent to library)	PO1,PO2, PO4,PO8

6.3 Adequate and well equipped laboratories and technical man power **(30)**

Sr.No.	Name of the laboratory	No.of students per setup	Name of the important equipment	Weekly utilisation status(all the courses for which lab is utilized)	Technical man power support		
					Name of the technical staff	Designation	Qualification
1	Building Material Lab.	30	1.Sieve shaker M/c 2.Mould Vibrator	02 hrs	---	-----	----
2	Concrete Technology Lab.	30	U.T.M, C.T.M	02 hrs	-----	------	-----
3	Transportation Engineering lab	30	Los Angel Abrasion Testing m/c	02hrs	-----	-----	-----
4	Soil Engineering Lab.	30	Triaxial shear testing m/c,Direct shear testing m/c	02hrs	----	-----	-----
5	Surveying / Public Engineering Lab.	30	Total station Theodolite, PH meter, BOD Incubator	02hrs	------	-------	------
6	Applied Mechanics	30	Gear Trains,	02 hrs	------	-------	------

	Lab.		simple machines, Crab winch				

6.4 Additional facilities created for improving the quality of learning experience in laboratories(20)

Sr.No.	Facility name	Details	Reasons for creating facility	Utilisation	Areas in which students are expected to have enhanced learning	Relevance to POs /PSOs
1	Models and charts	All the models of Civil Engg. equipments, machineries kept in the lab	To give better understanding of the equipments, machineries	In subjects like Transportation Engg., Surveying, Water Resource Management	In all the courses of Civil Engg. from sem-1 to sem-6	PO1,PO2, PO8,PO3
2	Old Projects of Civil Engg.	Better old projects of Civil Engg. kept for further studies	innovation of the existing Projects and learning experience for project-I and Project-II subjects	Used by present batches for innovation in the related Projects	Innovative Project work	PO1,PO2, PO8,PO3

6.5 Laboratories: Maintenance and overall ambiance (10)

Regular maintenance is done by lab technicians and lab attendant of all the laboratories of Civil Engineering and Workshop. Whenever any financial assistance for repair and maintenance of lab machinery is required, the Principal provide the same.

6.6 Availability of computing facility in the Department

No. of Computer Terminals	Students computer ratio	Details of legal software	Details of Networking	Details of Printers, scanners etc
02	180/02=90	----	Nil	02

6.7Language Lab (10)

Not Available

CRITERION 7	Continuous Improvement	75

7.1 **Actions based on the results of evaluation of each of the POs & PSOs (25)**

Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve POs& PSOs attainment levels for the assessment years. Actions to be written as per table in 3.3.2.

Examples of Analysis and proposed action

sample-1- As per the rules framed for admission to Diploma courses in Dadra & Nagar Haveli to give first preference to local Domicile category candidates (Merit list separately prepared for DO category).Therefore students with poor marks in Mathematics &Science get into Diploma courses, due to which it is difficult to get 100% results in exam.

Action taken: Special care is being taken by lecturers, for those poor students(having less % in 10th exam) so that they cope up with other students in the classroom as well as in Practicals.

Sample-2-In a course that had group projects it was determined that the expectations from this course about PO3(like: to meet the specifications with consideration for the public health and safety and the cultural, societal and environmental considerations) were not realized as there were no discussions about these aspects while planning and execution of the project.

Action taken-Project planning, monitoring and evaluation included in rubrics related to these aspects.

POs &PSOs Attainment levels and Actions for improvement-CAY

PO/PSO	Target Level	Attainment Level	Observations	Actions taken
Basic Knowledge	2.2	2.16	0.04	Lecturers asked to take extra classees in

				related subjects
Discipline Knowledge	2.50	2.40	0.10	Lecturers asked to take extra classees in related subjects
Experiments &Practices	2.51	2.408	0.102	Lecturers & lab Technicians were directed to take extra classees in related practicals
Engineering Tools	2.0	2.0	0.0	Purchase of required Items are placed before the higher authority
The Engineer & Society	2.04	2.032	0.008	Students were motivated to participate in Social service activities through Engineering
Environment and sustainability	2.0	2.0	0.0	Students are involved in plantation and swachh Bharat Abhiyan
Ethics	2.033	2.026	0.007	Students advised to

				follow morality,Nationalism.
Individual and Team work	2.06	2.048	0.012	Students are motivated through Project work to work as a team for better results
Communication	2.11	2.088	0.022	Guest lectures had been organised by Institution
Lifelong learning	2.086	2.068	0.018	Motivation in classrooms were given
PSO-1	2.161	2.128	0.033	Students encouraged to do better
PSO-2	2.33	2.264	0.066	Students encouraged to better

7.2 Improvement in success Index of students without the backlog(10)

SI=(Number of students who have passed from the program in the stipulated period of course duratio)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry)Assessment shall be based on improvement trends in success indices. Marks are awarded accordingly

Item	LPB(2016)	LPB m1(2015)	LPBm2(2014)
Success Index(from criteria 4.2.1)	0.38	0.2333	0.1568

7.3 Improvement in placement and Higher studies (10)

Assessment is based on improvement in: Placement number, quality placement, core industry, pay packages etc. Higher studies: admissions in premier institutions

Item	LPB(2016)	LPBm1(2015)	LPBm2(2014)
Placement index(from criteria 4.6)	1.138	-----	-----

7.4 Improvement in Academic performance in Final year(10)

Item	LPB(12016)	LPBm1(2015)	LPBm2(2014)
Academic performance Index(From criteria 4.3)	4.832	4.2326	3.1338

7.5 New facility created in the program(20)

Item	CAY(2016)	CAY m1(2015)	CAY m2(2014)
Internet (wi fi)	W i Fi(BSNL)	No wi fi	No wifi
Guest lectures from Industry	Lecture arranged related to soft skills, Technical skills	No Guest lecture	No Guest Lecture
Expert talk in various subjects	To be started from	-----	--------

of Engineering(from IITs, NITs) approved	September-oct. 2017		
Apprenticeship training through National Apprenticeship Training Scheme of MHRD(in coordination with Board of Apprenticeship Training(BOAT),WR,Mumbai)	Institute registered in NATS in 2016	----	----

Institute Level Criteria

Criteria 8	**Student Support System**	**50**

8.1 Mentoring System to help at individual level (10)

Professional guidance is given by inviting career counselors who have a vast experience in Industry as well as in counseling .

Communication skill workshops are being organized by inviting professionals.

lecture talks are arranged and Industry persons are invited for improvement of skills of Students.

Students also go to industry visit to get industry experience.

The Institution also has registered with NATS, Ministry of HRD, Govt. of India and communicating with BOAT,(WR),Mumbai for apprenticeship training to the pass out students in nearby industry.

8.2 Feedback analysis and reward /corrective measures taken, if any(10)

Seminars organised in the Civil Engineering Department in almost all theory subjects as well as in final year Project , to build confidence in the technical aspect of the course. This is done after getting feedback of the students that they used to fail in the viva-voce exam of Gujarat Technological University.

Also this practice to talk on the dias infront of audience give them confidence to face interviews after passing out Diploma.

Reward giving system has been developed in the Institution for bright topper of every Department. Also Prize is awarded to best projects every year in every department. For participating in the Project Mela a cash prize of Rs,.2000/ is provided to every project group of Civil Engineering Department.

8.3 Feedback Facilities (5)

There are committees formed in the Institution for taking care of every aspect of different facilities provided to students. The committees work continuously for the benefit of students by getting feedbacks from them..

8.4 Career Guidance, Training , Placement(20)

A committee has been formed to work on training and placement of Students.

The Faculty incharge and lecturers involved for Civil Deptt are:

Name of Faculty	Responsibility
Dr.B.Jha	TPO ,Civil & Overall
Shri K.B.Patel	Civil Engg.
Shri R.N.D.Sharma	Civil Engg.

*A total of 15 students of Civil Engineering Department have been placed in different Industries after passing out in 2016.

*Also campus placement drive is organised on 21/04/2017 for this year. The surrounding Industries are invited to participate in the placement drive for all the Department students.

*Apprenticeship training to the students by NATs through BOAT,WR,Mumbai is being in a negotiation stage.

*In this connection two Directors from NILERD,NITI Aayog visited Dr.B.B.A.Govt.Polytechnic on 01/04/2017.They interacted with the Faculties in the matter of Apprenticeship training and placement of the students.

The Directors are:

1.Dr.Yogesh Kumar,Joint Director,NILERD,NITI Aayog,Govt.of IndiaFellow Institute of Town planners ,India

2.Marshal Birua, Assistant Director, NILERD,NITI Aayog,Govt.of India

*The feedback in the official format was taken by those Directors for further progress in the matter of better training and placement to the students.

8.5 Enterpreneurship cell/Technoogy Business Incubator(5)

Not available

CRITERION 9	Governance, Institutional Support and financial Resources	75

9.1Organisation , Governance and Transparency

9.1.1.State the Vision and Mission of The Institute **(5)**

The Vision of the Dr.B.BA.Govt.Polytechnic :

The establishment of Dr. B.B.A. Govt. Polytechnic, at Dadra and Nagar Haveli will help the UT Administration to meet its man power needs and also in development of tribal regions. Moreover, the Territory must have a Polytechnic of its own to meet the aspirations of the local people, by transforming the students to be technically skilled managers, innovative leaders and environmentally receptive citizens.

The Mission of Dr.B.BA.Govt.Polytechnic is:

To implement holistic approach in curriculum and pedagogy through Industry Integrated Interactions to meet the needs of Global Engineering Environment.

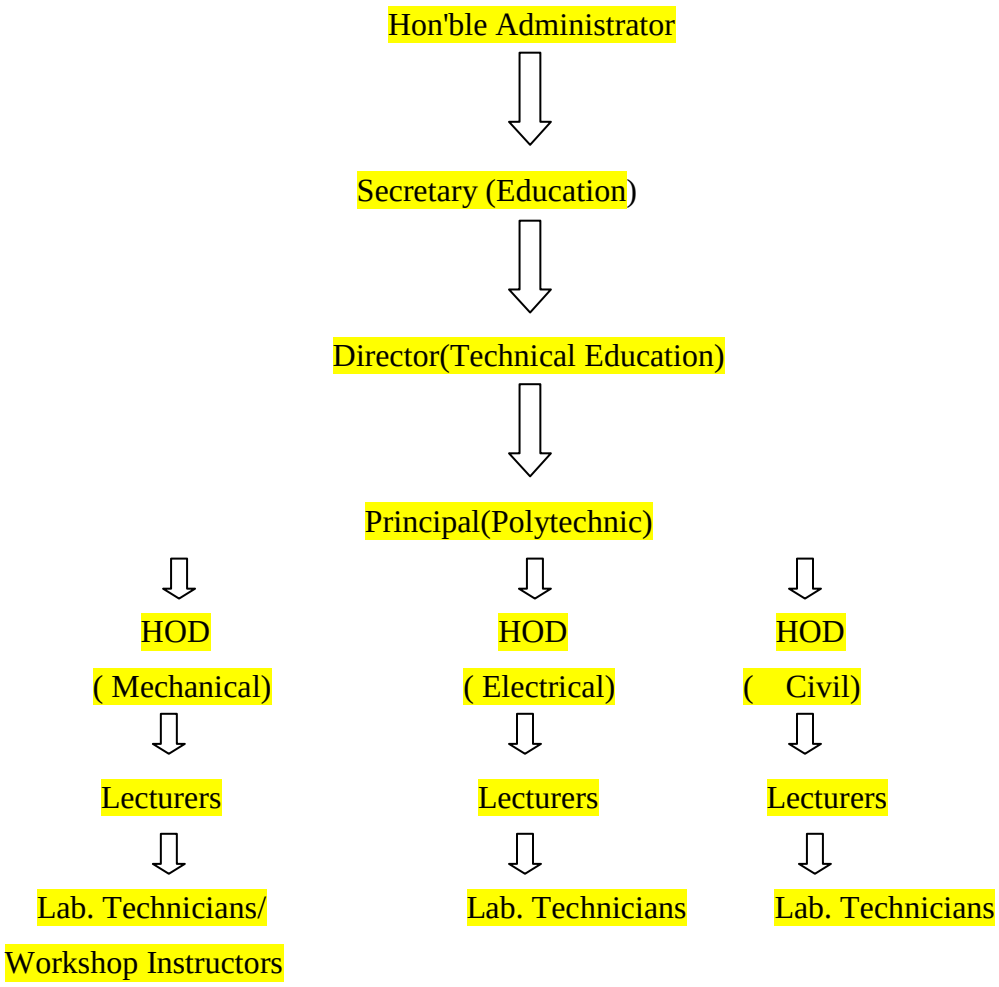
To develop students with knowledge, attitude and skill of employability, entrepreneurship (Be Job creators than job seekers), research potential and professionally ethical citizens.

9.1.2 **Governing body , administrative setup ,functions of various bodies, define rules procedures ,recruitment and promotional policies (5)**

Dr. B.B.A. Govt. Polytechnic was setup in the year 1994 after getting permission from Ministry of HRD and AICTE in 1989.

The institute was under the Administration of Dadra & Nagar Haveli and Hon'ble Administrtor, Dadra & Nagar Haveli, Daman & Diu is the appointing authority and Employer.

The Administrative set up is as under:



The functions of various Bodies presently working in Dr.B.B.A.Govt.Polytechnic are

Sr.No.	**Responsibility & Department**	**Name &Designation of the main Responsible Lecturer**	**Name of the Committee members/Assisting Staff**	**Role**
1	I/C HOD in Civil Engg.	Shri K.B.Patel		
2	I/C HOD in Mechanical Engg.Department	Dr.B.K.Dandapat		
3	I/C HOD in Electrical Department	Shri A.K.Swain		Department level administration, laboratory development/upgradation,academic weekly review as per GTU requirements and documentation of all activities
4	I/C HOD in Computer & .I.T.Department	Shri S.Chennappa		
5	I/C HOD in Electronics & Communicati	Smt.M.G.Desai		

	onl Department			
6	I/C Humanities &Science Subjects	Dr.J.B.Rana		
7	GTU coordinator	Dr.J.B.Rana,/Dr.B.Jha& Shri S.Chennappa	Shri Sanjay Solanki(Lect.)Shri Bhaven Doshi(Lect.)	Enrollments,Exams work,assesment,,all GTU matters
8	I/C Student section	Dr.B.Jha,Shri B.Moharana	Shri Mitesh Billiwala Shri Bhaven Doshi Shri Subhash Patel Shri Bhagwan Korda MS.Nisha Shingda Shri Ritesh Vad	GTU Certificates & marksheets,Admission data & documents,safe keeping & distribution,bonafide certificates etc,all students record maintainance
9	Academic Committee	Shri K.B.Patel(Convener)	All HODs,Shri D.L.Sahu,Dr.B.	Academic planning, inspection-documentation,

			Jha, Shri P.V.Gadge	quality aspects, students attendance& detention issue
10	Affiliation Committee	Shri S.Chennappa,Shri S.S.Shrawge & Office Supdt.	Dr.J.B.Rana Shri K.B.Patel Shri Sanjay Solanki	Affiliation documentation for extension of Approval(EOA) AICTE& GTU Affiliation
11	I/C Student CoCurricular Activity	Shi R.N.D Sharma(Coordinator)	Shri Dipen Patel(Sports) Smt.Urvi Patel& Sohil Khalani(Cultural)& Sachin Chouhan(Literary) Smt Hemangini Parmar& Suraj Mahala(Technical Events & Exhibitions)	Advance planning of all activities, students management and monitoring, students appreciation & award distribution
12	GTU Innovation club & Open	Shri R.N.D.Sharma(GIC) Dr.B.Jha(OSTC)	Shri Mitesh Billiwala Shri Vishal	Innovations in projects , as per GTU guidelines & open software workshops

	Source Technology club		Dhoke Smt. K.R.Jadeja Smt.Alka Patel Shri Bhaven Doshi Shri DSanjay Solanki	
13	Training & Placement Section	Dr.B.Jha Dr.B.K.Dandapat	Shri P.V.Gadge Shri B.moharana Shri Sohil Khalani Shri A.A. PatilSohit Mecwan,Smt.Alka Patel,Smt.K.R.Jadeja & Shri P.N.Parmar(O.S.)	Training,campus placements,educational & Industrial visits/Tours,Expert talk,Workshops/seminars
14	Workshop Superintendent	Shri P.V.Gadge	Shri Sohil Khalani Shri	All Workshop work upgradation etc.

			M.B.Rohit,Shri Dolu Ndge	
15	Master Time table Section	Shri D.L.Sahu Shri C.S.Rao	Shri D.N.Shinde Sohit Mecwan Shri A.D.Desai	Preparation & compiling maser time table
16	Library Committee	Mrs..M.S.Desai,Asst.Librarian-Convener Shri S.Mishra&Mrs.C.N.Desai-members	Shri Dipen Patel Smt. K.R.Jadeja	All issues of books,journals etc in library,reading section for students and staffs
17	Discipline Committee	Shri C.S.Rao-Convener & all HODs	Dr.J.B.Rana Shri A.A.Patil Smt.H.H..Parmar Shri Prakash Bij	Disciplinary issues
18	Institute Magazine Committee	Dr.B.Jha,Shri S,.chennappa	All HODs-Chief Contributors,Shri Sachin Chouhan-Language Editor	TO invite records of events from department and compile them
19	Rector, Boys Hostel	Shri R.N.D.Sharma	Shri Sachin Chouhan	Hostel issue safe keeping of college key in the

				campus
20	Equipment Utility Evaluation Committee	All HODs,Sr.Store Keeper & Office Superintendent	------	To verify the cases of old equipment for write off etc.
21	Institute Website monitoring & Upgradation Committee	All HODs Dr.B.Jha & Dr.J.B.Rana	Shri S.Chennappa Shri S.Mecwan	Monitoring & up gradation of website
22	I/C Computer Programmer	Shri S.Chennappa Shri S.Mecwan	Shri Sanjay Solanki Shri A.A.Patil	Develop need based computer programs for effective working & public viewing

Define Rules and Procedures

The Institute is under Govt.of India. Therefore all the Service rules are as per DOP &T guidelines. The Meetings are conducted by Principal(Polytechnic) and accordingly orders are delivered for all the Employees of the Institution. The AICTE pay scales has been implemented in the Institution effective from 01.01.1996.

The Biometric attendance has been used for the last 05 years..

The promotional policies are as per CAS of AICTE. The Direct recruitment is through U.P.S.C.,New Delhi. The RR of the Institution has been published in April 2015 with some errors. The rectification of errors is now under process.

9.1.3.Decentralization in working and Grievance redressal mechanism(5)

The Order for different responsibilities are as mentioned in 9.1

9.1.4 Delegation of Financial Powers(5)

The Principal is also DDO of the Institution.

The HOD s are given responsibility on rotation basis from the Department faculties.

No Financial power given to any HOD or Faculty.

Principal & DDO is having all the financial power.

9.1.5 Transparency and availability of correct /unambiguous information in public domain(5)

Principal (Polytechnic) is the Authority for any information related to Dr. B.B.A. Govt. Polytechnic, U.T. of Dadra &Nagar Haveli.

9.2 **Budget Allocation, utilization and Public Accounting at Institute level (10)**

(Summary of current financial year's budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years

Total income at Institute level

A.CFY(2016)

Total income in CFY(2016-17)			Actual expenses in CFY(Till March 2017)			Total no. of students in CFY
Fee (Rupees in thousands)	Govt. Grants (Ruppees in thousands)	Any other sources (Ruppees in thousands)	Recurring including salaries (Ruppees in thousands)	Non - recurring	Special projects/ Any other ,specify	Expenses per students
2511	Major Head(39737+434+2921+2959+349+1832)=48232	--	47997	-----	----	Total No.=749, Expenses per students= Rs.25,094.79

B.CFYm1

Total income in CFY(2015-16)			Actual expenses in CFY(Till .....)			Total no.of students in CFYm1
Fee (Ruppees in thousands)	Govt. Grants	Any other sources	Recurring including salaries	Non - recurring	Special projects/Any other ,specify	Expenses per students
4192	60700	--	44538	------	---	Total No.=698, Expenses per students=Rs.63808.02

C.CFYm2

Total income in CFY(2014-15)			Actual expenses in CFY(Till .....)			Total no.of students in CFYm2
Fee (Rs. in	Govt. Grants	Any other	Recurring including	Non - recurring	Special projects/Any	Expenses per students (Rs. in thousand)

thousand)	(Rs. in thousand)	sources	salaries (Rs. in thousand)	(Rs. in thousand)	other ,specify (Rs. in thousand)	
1434	94400	---	51419	---	----	No.=720, Expenses per students=Rs.71,415.27

D.CFYm3(2013)

Total income in CFY			Actual expenses in CFY(Till .....)			Total no.of students in CFY
Fee	Govt. Grants	Any other sources	Recurring including salaries	Non - recurring	Special projects/Any other ,specify	Expenses per students
--	---	----	----	----	-----	---

Table-Consolidated budget received -Expenditure in CFY,CFYm1, CFYm2,CFYm3

Item	Budget in CFY 2016-17 (Rs. in thousands)	Actual expense in CFY2016-17(till March 2017) (Rs. in thousands)	Budget in CFYm1(Till)2015-16 (Rs. in thousands)	Actual expense in CFYm1(till) (Rs. in thousands)	Budget in CFYm1(Till)2014-15 (Rs. in thousands)	Actual expense in CFY(till)2014-15(Rs. in thousands)	Budget in CFYm1(Till)2013-14 (Rs. in thousands)	Actual expense in CFY(till)2013-14
Infrastrcture built up	---	---	--	---	---	---	---	---
Library	---	---	--	---	---	---	---	---

Laboratory Equipment	---	---	---	---	---	---	---	---
Teaching &Non Teaching staff salary	39737 +349	39516 +348	40000 +420	35368 +355	63000 +390	44279 +360	----	---
Maintenance and spares	2921	2921	5000	5276	5000	3237	---	---
R&D	---	---	--	--	-----	----	---	---
Training and travel	434	434	150	123	150	196	---	---
Miscellaneous expenditures	1832	1819	2000+ 130	805 +0	2500	1119 +45	---	---
Others/Specify	2959	2959	3000 +5000 +5000	2611 +0 +0	3000 +10000 +10000	2183 +0 +0	---	---
Total	48232	47997	60700	44538	94400	51419	---	----

9.2.1 Adequacy of budget allocation (4)

In the F.Y.2016-17, 2015-16, 2014-15 the budget is always alloted more than actual expenditures

9.2.2 Utilization of allocated funds (4)

Maximum fund is utilized in the financial years 2016-17,2015-16,2014-15 properly.

9.2.3 Availability of the audited statements on the Institute's website(2)

The information on audited statement is available at the office of Dr. B.B.A. Govt. Polytechnic.

9.3Program specific Budget Allocation , Utilization (15)

Budget is allotted for all the Departments like Mechanical Engg., Electrical Engg., Civil Engg., etc. The split in Budget program specific document is not available.

Total Budget in CFY(2016-17):		Actual expenses in CFY(2016-17)(Till .....)		Total No.of students in CFY(2016-17):
Non Recurring	Recurring	Non Recurring	Recurring	Expenses per student
--	----	----	----	----
---	---	---	---	---

Total Budget in CFYm1:		Actual expenses in CFYm1(2015-16)		Total No.of students in CFYm1(2015-16):
Non Recurring	Recurring	Non Recurring	Recurring	Expenses per student
--	----	----	----	----
----	----	----	----	----

Total Budget in CFYm2:		Actual expenses in CFYm2		Total No. of students in CFY:
Non Recurring	Recurring	Non Recurring	Recurring	Expenses per student
---	-----	----	-----	----
----	----	-----	----	----
--	---	----	----	----

9.2.3 Availability of the audited statements on the Institute's website (2)

The information on audited statement is available at the Institution office for public.

9.3Program specific Budget Allocation, Utilization (15)

9.3.1. Adequacy of Budget Allocation (**07)**

In the F.Y.2016-17, 2015-16,2014-15 the budget is always more than actual expenditures

9.3.2 Utilization of allocated funds **(8)**

Though total Budget is prepared combined for all the Departments, maximum funds are utilized in the financial years 2016-17,2015-16,2014-15 properly. After the actual expenditure every year, the funds are surplus, which can be realized from the table at 9.2.

9.4.Library and Internet **(20)**

(It is assumed that zero deficiency report was received by the Institution, Effective availability and utilization to be demonstrated)

9.4.1. Quality of learning resources(hard/soft) **(10)**

1. The Dr. B.B.A. Govt. Polytechnic is well equipped with a library.

2. The Text Books, Reference Books of Mechanical Engineering are available in both English and Gujarati Language. The students have an option to write Examination in English or Gujarati as per GTU(University) guidelines.

3. The Science journals(Hard copy),Magazines, Newspapers(National & Local) in English, Hindi, Marathi, Gujarati are available for students and faculties.

4. There is a reading room attached to the library with a capacity of around 80 persons. It is open during college Hours.

5.The e-journals of Institutions of Engineers(soft copy) are subscribed for the Students and faculties. Even Internet can be accessed through wifi (BSNL) in the Institution premises. The study material and competitive exam papers are available for students.

9.4.2. Internet **(10)**

i. Name of the internet provider- BSNL lease line, BSNL(Qfi), & Dongle of Idea Network(Backup)

ii. Available Band width : BSNL –(i)BSNL leaseline-10MBPS (ii)BSNL Qfi-2MBPS(Free wifi by U.T. of DNH)

Idea Net setter- (3G)

iii. Wi fi availability: yes, BSNL

iv. Internet access in labs, classrooms, library and offices of all Departments: Yes through wi fi networks of BSNL and Dongles of Idea Network (Recharge done every month) as backup.

v. Security arrangements: The security within the campus was provided by" NEWGEN SECURITY SERVIES". The security is available for 24 hours in 03 shifts.04 security Guards and one Security supervisor is on duty for 24 hours. A total of 12 security personnel deployed by the security Agency.

9.5 Institutional Contribution to the Community Development **(5)**

1. The students and staff of Dr. B.B.A. Govt. Polytechnic performs swachta abhiyan every year by cleaning the main road between Rakholi (4 roads chowk) and Dr. B.B.A. Govt. Polytechnic Campus(02 kms) as a part of Swachh Bharat Abhiyan.

2. The students of Civil Engineering have done projects related to rain water harvesting, waste water treatment, testing of concrete for Builders, house owners, etc. as part of their contribution to Society. It is a continuous process to words commitment for society.

Administration of Dadra & Nagar Haveli
(Department of Technical Education)
Dr. B.B.A. Govt. Polytechnic, Karad (D.P.),
Madhuban Dam Road-Silvassa-396240

No.EST/GPK/NBA/SAR/2017/1423 Dated: 10/10/2017

Declaration

The Head of the Institution needs to make a declaration as per the format given below:

I undertake that, the Institution is well aware about the provisions in the NBS's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the Institute shall fully abide by them.

It is submitted that information provided in this Self Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA in case any false statement/ information is observed during pre-visit, visit, post visit, and subsequent to grant of accreditation.

Date: 10/10/2017

Signature

Place: Karad(D.P.)

Name: PRIYANKA KUMARI

Designation of the Head of the Institution with seal

Principal
Dr. B.B.A. Government Polytechnic College
Karad (D.P.) Silvassa
Dadra & Nagar Haveli

Annexure – 1

(A) PROGRAM OUTCOMES (POs)

The students are expected to possess the attributes listed below

PO-1: Engineering knowledge: Demonstrate the knowledge of mathematics, science and engineering.

PO-2: Discipline knowledge: Demonstrate the ability to apply Civil Engineering – specific knowledge to solve core and applied engineering problems.

PO-3: Experiments and practice: Demonstrate the ability to design and conduct experiments, interpret and analyze data and report results.

PO-4: Engineering tools: Demonstrate the ability to model a live problem or a project that meets desired specifications and requirements using appropriate tools.

PO-5: The engineer and society: Demonstrate the ability to understand the impact of engineering on society, health, safety and legal issues and incorporate them in engineering solutions.

PO-6: Environment and sustainability: Demonstrate the ability to judge the impact of engineering solutions on the environment to achieve sustainable development.

PO-7: Ethics: Demonstrate an understanding of their professional and ethical responsibilities in engineering field.

PO-8: Individual and team work: Demonstrate the ability to function in multidisciplinary or diverse environment as a member or leader of the team.

PO-9: Communication: Develop the ability to communicate effectively with both verbal and written fluency.

PO-10: Life-long learning: Develop the ability to engage in independent and lifelong learning to adapt technological change.

List of PSO's

PSO1: The program must demonstrate that diplomats can apply specific program principles to Design, Drawing, test, estimate, planning, construction or documentation of basic Civil Engineering.

PSO2: The program make diplomats Design, Drawing, test, estimate, planning ,construction society needed products and engage in construction, repair & maintenance such quality products with utmost environment safety and committed for and provide good service to the society.