| COURSE OUTCOMES  |  |
|------------------|--|
| AND              |  |
| PROGRAM OUTCOMES |  |

#### 1.1. The correlation between the Courses and the Program Outcomes (POs) and

**Program Specific Outcomes (PSOs)** 

**1.1.1. Course Outcomes (COs)** 

#### Semester: 1 Course Name: 30011-Communication English - 1

Year of study: I Year

| 1 | Use the language correctly, concisely and effectively in both spoken and written format.                          |
|---|---|
| 2 | Comprehend Engineering subjects in English and perform their professional activities using English.               |
| 3 | Participate in group discussion, presentation, reporting and documentation successfully using English.            |
| 4 | Recognize their latent talents and choose their careers accordingly.  |
| 5 | Develop their lateral thinking abilities and thus identify innovative methods in solving problems in their lives. |

Semester: Course Name: 30012 - Engg. Mathematics – 1 Year of study: Students will

be able to

| 1 | Develop logical thinking which is useful in comprehending the principles of all other subjects.   |
|---|---|
| 2 | Analytical and systematic approach towards any problem is developed through learning of this subject.   |
| 3 | Acquire knowledge of algebra of complex numbers and its uses to solve equations having non-real solutions and knowledge of differentiation, principles and different methods, |
| 4 | Develop the ability to apply these methods to solve technical problems to execute management plans with precision.  |

## Semester: 1 Course Name: Engg. Physics - 1Year of Study: 1 year

| 1 | Understand the importance of SI units and dimensional formulae.   |
|---|---|
| 2 | Acquire broad ideas about resultant, moment of a force and torque of a couple.  |
| 3 | Understand the elastic property and the types of Modulus of elasticity. Explain the surface tension of liquids and viscosity of fluids. |
| 4 | Understand Newton's laws of motion and equations of different types of motion.  |
| 5 | Gain knowledge about rotational kinetic energy and angular momentum.  |

### Semester: 1 Course Name: Engg. Chemistry – 1 Year of Study: 1 year

Students will be able to

| 1 | Know about atomic structure, molecular mass and acids and bases.                  |
|---|---|
| 2 | Learn about solutions, colloidal particles and Nano-particles.                    |
| 3 | Know about hardness of water, catalysis and glass.                                |
| 4 | Explain the details of electrochemistry, electrochemical cell and energy sources. |
| 5 | Understand corrosion and its prevention methods.                                  |

#### Semester: 1 Course Name: Engg. Graphics - 1 Year of Study: 1 Year

| 1 | Understand the importance of drawing. Identify and use the drawing instruments |
|---|--|
| 2 | Practice the rules and methods of dimensioning.                                |
| 3 | Acquire knowledge about geometric construction.                                |
| 4 | Construct conics curves.   |
| 5 | Draw the projection of points and straight lines.                              |
| 6 | Draw orthographic views from isometric drawings.                               |

#### Semester: 1 Course Name Engg. Physics Practical - 1 Year of Study: 1 Year

Students will be able to

| 1 | Understand Ohm's law and Faraday's laws of electromagnetic induction; solve problems on resistance combinations and energy. |
|---|---|
| 2 | Understand electronic components and their applications, working of rectifiers and logic gates.                             |
| 3 | Measure the various dimensions of given objects using instruments   |
| 4 | Apply the vector concepts in engineering  |
| 5 | Draw orthographic Apply the acquired knowledge of fluid dynamics in the field of engineering views from isometric drawings. |
| 6 | Apply the concepts of wave motion in engineering  |

## Semester: 1 Course Name: Engg. Chemistry Practical - 1 Year of Study: 1 Year

| 1 | Know about atomic structure, molecular mass and acids and bases.                  |
|---|---|
| 2 | Learn about solutions, colloidal particles and nano-particles.                    |
| 3 | Know about hardness of water, catalysis and glass.                                |
| 4 | Explain the details of electrochemistry, electrochemical cell and energy sources. |
| 5 | Understand corrosion and its prevention methods.                                  |

## 1.1.2. CO-PO matrices of courses selected in 3.1.1 (four matrices to be mentioned; one per

## semester from 3rd to 6th semester) (05)

|  | 1   | Slight | 2   | Moderat | e 3 | Substa | ntial |     |         |          |
|--|-----|--------|-----|---------|-----|--------|-------|-----|---------|----------|
| Semester: Course Name: 38231-PRINTING PROCESSESS Year of study: 2 year / 3 sem               |     |        |     |         |     |        |       |     |         |          |
| 38231-PRINTING<br>PROCESSESS   | PO1 | PO2    | PO3 | B PO4   | PO5 | PO6    | PO7   | PO8 | PO<br>9 | PO<br>10 |
| Know the Historical<br>background and<br>evolution.  | 2   | 3      | 2   | 1       |     |        |       |     |         |          |
| Study the Structure of<br>Printing Industry  | 2   |        | 2   | 1       | 1   |        |       |     |         | 3        |
| Understand the<br>Principles of Printing<br>Processes.                                       | 2   | 3      |     | 2       |     | 1      | 1     | 2   |         |          |
| Learn the<br>Applications of<br>Printing Processes.  | 2   | 1      |     | 1       |     |        |       |     |         | 3        |
| Know the<br>Classifications of<br>Printing Machines<br>used in different<br>Prinitng Process | 2   |        |     | 1       |     |        |       |     |         |          |

|  | PSO1 | PSO2 | PSO3 |
|--|------|------|------|
| Know the Historical background and evolution.  | S    |      | SS   |
| Study the Structure of Printing Industry   | S    | М    | М    |
| Understand the Principles of Printing<br>Processes.                                    | S    | М    | SS   |
| Learn the Applications of Printing<br>Processes.                                       | S    |      |      |
| Know the Classifications of Printing<br>Machines used in different Prinitng<br>Process | SS   |      | М    |

#### PSO

# Semester: Course Name: 38241 - OFFSET PRINTING TECHNOLOGYYear of study: 2 Year

| 38241 -<br>OFFSET<br>PRINTING<br>TECHNOLOG<br>Y  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Understanding<br>Basic principles<br>and Structure of<br>offset printing<br>process.                     | 2   | 3   | 1   |     | 2   |     |     |     | 1   | 3    |
| Prepare the<br>automatic feeder<br>and delivery<br>setting for<br>different<br>substrates                | 2   |     | 1   |     | 2   |     |     |     | 1   |      |
| Choose the types<br>of folders and<br>remedies for mis-<br>register<br>problems.                         | 2   | 3   | 1   |     | 2   |     |     |     | 1   | 3    |
| Concepts of<br>Infeed and Web<br>Guiding Devices<br>Web Offset Press                                     | 2   | 3   | 1   |     | 2   |     |     |     | 1   |      |
| Types of dryers,<br>chill rollers,<br>folders and<br>Auxiliary<br>Equipments in<br>web offset<br>presses | 2   | 3   | 1   |     | 2   |     |     |     | 1   |      |

## **PSO:**

|   | PSO1 | PSO2 | PSO3 |
|---|------|------|------|
| Understanding Basic principles and<br>Structure of offset printing process. | S    |      | М    |

| Prepare the automatic feeder and delivery setting for different substrates                | S  | S | SS |
|---|----|---|----|
| Choose the types of folders and remedies for mis-register problems.                       | SS | М | М  |
| Concepts of Infeed and Web Guiding<br>Devices Web Offset Press                            | S  |   | М  |
| Types of dryers, chill rollers, folders and<br>Auxiliary Equipments in web offset presses | S  |   | SS |

# Semester: Course Name: 38254 - PACKAGING TECHNOLOGYear of Study: 3 Year

| 38254 -<br>PACKAGING<br>TECHNOLOG<br>Y  | PO1 | PO2 | PO3 | PO<br>4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO<br>1 0 |
|---|-----|-----|-----|---------|------|------|------|------|------|-----------|
| Study about<br>Basics of<br>Packaging<br>Process                                | 2   | 1   | 3   | 1       |      |      | 1    |      |      | 3         |
| Judge the<br>materials used in<br>packaging.<br>(Board, Plastics<br>and Metals) | 2   |     | 1   | 1       | 1    |      |      |      |      |           |
| Learn about<br>Packaging<br>Machinery &<br>Finishing                            | 2   | 3   |     | 1       |      |      |      |      |      | 2         |
| Know about<br>Ancillary<br>Packaging  | 2   |     | 2   | 1       |      |      | 1    |      |      | 3         |
| Learn about<br>Specialty<br>Packages  | 2   | 3   | 1   |         | 2    |      | 1    |      | 2    | 1         |

|   | PSO1 | PSO2 | PSO3 |
|---|------|------|------|
| Study about Basics of<br>Packaging Process                                | S    |      | М    |
| Judge the materials used in<br>packaging. (Board, Plastics and<br>Metals) | S    | S    | SS   |
| Learn about Packaging<br>Machinery & Finishing                            | SS   | М    | М    |
| Know about Ancillary Packaging  | S    |      | М    |
| Learn about Specialty Packages  | S    |      | SS   |

Semester: Course Name: 38265 - MACHINERY MAINTENANCE PRACTICAL Year of Study: 3 year

| 38265 -<br>MACHINERY<br>MAINTENANC<br>E PRACTICAL   | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Know about<br>handling and<br>application of tools<br>and Supporting<br>objects                 | 2   | 1   | 2   | 1   |     |     | 1   |     |     | 3    |
| Study about<br>Motor, Power<br>Transmission<br>systems and<br>Mechanical<br>Components          | 2   |     | 1   | 1   | 1   |     |     |     |     |      |
| Demonstrate the<br>Mechanical and<br>Electrical Auxiliary<br>Equipments                         | 2   | 3   |     | 1   |     |     |     |     |     | 3    |
| Perform the solid<br>print test for<br>identifying<br>mechanical<br>problems in the<br>machine. | 2   | 3   | 2   | 1   |     |     | 1   |     |     |      |

PSO

#### PSO

|  | PSO1 | PSO2 | PSO3 |
|--|------|------|------|
| Know about handling and application of tools and Supporting objects              | S    |      | SS   |
| Study about Motor, Power Transmission systems and Mechanical Components          | S    | М    | М    |
| Demonstrate the Mechanical and Electrical Auxiliary<br>Equipments                | S    | М    | SS   |
| Perform the solid print test for identifying mechanical problems in the machine. | S    |      |      |

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

| 1 | Slight | 2 | Moderate | 3 | Substantial |
|---|--------|---|----------|---|-------------|
|---|--------|---|----------|---|-------------|

| Sem | Course                                  | PO<br>1 | <b>PO</b><br>2 | РО<br>3 | PO<br>4 | PO<br>5 | PO<br>6 | PO<br>7 | PO<br>8 | PO<br>9 | PO<br>10 |
|-----|---|---------|----------------|---------|---------|---------|---------|---------|---------|---------|----------|
|     | Commu<br>nication<br>English -<br>1     | 10      | 0              | 3       | 2       | 0       | 0       | 0       | 0       | 1       | 3        |
|     | 30012 -<br>Engg.<br>Mathem<br>atics - 1 | 8       | 8              | 6       | 5       | 0       | 0       | 0       | 0       | 0       | 0        |
|     | 30013 -<br>Engg.<br>Physics -<br>1      | 10      | 5              | 6       | 8       | 1       | 0       | 0       | 0       | 0       | 0        |
|     | 30014 -<br>Engg.<br>Chemist<br>ry - 1   | 10      | 4              | 4       | 6       | 0       | 0       | 0       | 0       | 0       | 0        |
| Ι   | 30015 -<br>Engg.<br>Graphic<br>s - 1    | 8       | 4              | 4       | 6       | 0       | 0       | 0       | 0       | 0       | 0        |

|                                      | Sem      |   |   |                                      |                                       |                                    |   | П   |                                  |   |   |
|--------------------------------------|----------|---|---|--------------------------------------|---------------------------------------|------------------------------------|---|---|----------------------------------|---|---|
| 38231-<br>PRINTING<br>PROCESSES<br>S | Course   | 30028 -<br>Engg.<br>Chemist<br>ry<br>Practical<br>- 2 | 30027 -<br>Engg.<br>Physics<br>Practical<br>- 2 | 30026 -<br>Engg.<br>Graphic<br>s - 2 | 30025 -<br>Engg.<br>Chemist<br>ry - 2 | 30024 -<br>Engg.<br>Physics -<br>2 | 30022 -<br>Engg.<br>Mathem<br>atics - 2 | 30021-<br>Commu<br>nication<br>English -<br>2 | 30018 -<br>Workshop<br>Practical | 30017 -<br>Engg.<br>Chemist<br>ry<br>Practical<br>- 1 | 30016 - Engg.<br>Physics<br>Practical - 1 |
| 10                                   | PO<br>1  | ∞   | 14  | 8                                    | 10                                    | 8                                  | 12                                      | 10  | 10                               | ~   | 14  |
| 1                                    | PO<br>2  | 6   | 10  | 4                                    | 6                                     | 6                                  | 8                                       | 0   | 7                                | 6   | 10  |
| 2                                    | PO<br>3  | 4   | 4   | 4                                    | 6                                     | 4                                  | 8                                       | 0   | 4                                | 4   | 4   |
| 6                                    | PO<br>4  | 4   | 6   | 6                                    | 6                                     | ω                                  | 8                                       | 2   | 4                                | 4   | 6   |
|                                      | PO<br>5  | 0   | 0   | 0                                    | 1                                     | 0                                  | 0                                       | 0   | 0                                | 0   | 0   |
|                                      | PO<br>6  | 0   | 0   | 0                                    | 1                                     | 2                                  | 0                                       | 1   | 0                                | 0   | 0   |
|                                      | PO<br>7  | 0   | 0   | 0                                    | 1                                     | 2                                  | 2                                       | 1   | 0                                | 0   | 0   |
| 1)                                   | PO<br>8  | 0   | 0   | 0                                    | 0                                     | 0                                  | 0                                       | 0   | 0                                | 0   | 0   |
| 0                                    | PO<br>9  | 0   | 0   | 2                                    | 0                                     | 2                                  | 0                                       | 2   | 0                                | 0   | 0   |
| 0                                    | PO<br>10 | 0   | 0   | 0                                    | 0                                     | 0                                  | 1                                       | 1   | 0                                | 0   | 0   |

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|  |             |              | IV  |                         |   | Sem      |  |                                    |     |    |                                    | II                                   |
|--|-------------|--------------|---|-------------------------|---|----------|--|------------------------------------|-----|----|------------------------------------|--------------------------------------|
| 38246 -<br>OFFSET<br>MACHI<br>NES<br>PRACTI<br>CAL | HING<br>FOR | PRINTI<br>NC | 38243 -<br>PRINT<br>FINISHI<br>NG AND<br>CONVE<br>RTING | GRAPH<br>Y AND<br>SCREE | 38241 -<br>OFFSET<br>PRINTI<br>NG<br>TECHN<br>OLOGY | Course   | 30001 -<br>COMPUTER<br>APPLICATIO<br>NS<br>PRACTICAL | PRIN<br>TING<br>PRIM<br>ER<br>PRAC | INC | 10 | 38233 -<br>IMAGE<br>PROCESSI<br>NG | 38232 -<br>VISUAL<br>DESIGN &<br>DTP |
| 10   | 6           | 10           | 10  | 7                       | 10  | P0<br>1  | 11   | 7                                  | 4   | 7  | 7                                  | 7                                    |
| S  | 4           | 6            | S   | 7                       | 2   | PO<br>2  | 4  | 2                                  | 4   | 2  | 7                                  | 4                                    |
| 0  | З           | 3            | 1   | 7                       | 5   | PO<br>3  | 0  | J                                  | 0   | S  | 7                                  | S                                    |
| 6  | 2           | 6            | 9   | 2                       | 0   | PO<br>4  | رب<br>م  | 0                                  | 6   | 0  | 2                                  | 2                                    |
| 2  | 3           | 4            | 10  | 5                       | 10  | PO 5     | 7  | ω                                  | 0   | З  | S                                  | ω                                    |
| 0  | 1           | 0            | 0   | 2                       | 0   | PO 6     | 22   | 1                                  | 4   | 1  | 2                                  | 1                                    |
| 0  | 0           | 1            | 2   | 0                       | 0   | PO 7     | 0  | 0                                  | 0   | 0  | 0                                  | 0                                    |
| 0  | 0           | 2            | 0   | 0                       | 0   | PO 8     | w  | 0                                  | 2   | 0  | 0                                  | 0                                    |
| 0  | 2           | 0            | 0   | 2                       | S   | 9<br>9   | 4  | -                                  | 2   |    | 2                                  | 2                                    |
| <u> </u>   | 2           | 0            | 6   | 4                       | 0   | PO<br>10 | 4  | 2                                  | 4   | 2  | 4                                  | 2                                    |

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|     | 38247 -<br>PRINT<br>FINISHI<br>NC   | PRACTI<br>CAL | 8       | 6       | 8       | 0    | 8       | 0 (     | ) 2     | 1       | 2        |
|-----|---|---------------|---------|---------|---------|------|---------|---------|---------|---------|----------|
| Sem | Course  | PO 1          | PO<br>2 | PO<br>3 | PO<br>4 | PO 5 | PO<br>6 | PO<br>7 | PO<br>8 | PO<br>9 | PO<br>10 |
|     | 38251 -<br>DIGITAL<br>PREPRES<br>S  | 5             | 1       | 7       | 2       | 5    | 1       | 0       | 0       | 1       | 2        |
|     | 38252 -<br>E-<br>HING   | 6             | 4       | 3       | 2       | 3    | 1       | 0       | 0       | 2       | 2        |
| V   | DIGITA 38254 - 38253 - 38253 - 28253 - 282522 - 28252 - 28252 - 28252 - 28252 - 28252 - 28252 - 28252 - 28252 | 8             | 4       | 5       | 2       | 4    | 1       | 0       | 0       | 2       | 2        |
|     | 38254 -<br>PACKA<br>GING<br>TECHN<br>OLOGY  | 10            | 3       | 6       | 4       | 3    | 0       | 3       | 0       | 2       | 3        |
|     | 38256 - DIGITA<br>PACKA L<br>GING PREPR<br>PRACTI ESS<br>CAL PRACTI   | 6             | 2       | 5       | 0       | 4    | 0       | 0       | 0       | 0       | 0        |
|     |   | 8             | 2       | 5       | 0       | 4    | 1       | 0       | 0       | 1       | 2        |
|     | AND 38256 -<br>EMPLO PACKA<br>YABILI GING<br>TY PRACTI<br>SKILLS CAL  | 10            | 4       | 7       | 2       | 5    | 0       | 1       | 0       | 0       | 0        |

| Sem | Course  | PO<br>1 | PO<br>2 | PO<br>3 | PO<br>4 | PO<br>5 | PO<br>6 | PO<br>7 | PO<br>8 | PO<br>9 | PO<br>10 |
|-----|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
|     | 38261 -<br>TOTAL<br>QUALI<br>TY<br>MANAG<br>EMENT                                     | 10      | 10      | 6       | 6       | 5       | 0       | 0       | 2       | 4       | 0        |
|     | 38262 - 38261 -<br>PRINTI TOTAL<br>NG QUALI<br>PRESS TY<br>MANAG MANAG<br>EMENT EMENT | 10      | 9       | 5       | 5       | 3       | 1       | 0       | 0       | 6       | 2        |
|     | PRINTI<br>NG<br>MACHI<br>NERY<br>MAINT<br>ENANC                                       | 10      | 9       | 6       | 6       | 4       | 0       | 0       | 0       | 6       | 0        |
| VI  | PRINT<br>QUALITY<br>ASSURAN<br>CE<br>PRACTIC  | 8       | 8       | 8       | 4       | 0       | 0       | 0       | 0       | 8       | 0        |
|     | MACHINE<br>RY<br>MAINTEN<br>ANCE<br>PRACTIC   | 8       | 3       | 5       | 4       | 1       | 0       | 2       | 0       | 0       | 2        |
|     | INDUST<br>RIAL<br>EXPOS<br>URE<br>AND<br>REPOR  | 4       | 6       | 9       | 0       | 10      | 0       | 1       | 2       | 3       | 3        |
|     | 38267<br>-<br>PROJ<br>ECT<br>WOR<br>K   | 4       | 6       | 9       | 0       | 10      | 0       | 1       | 2       | 3       | 3        |

#### **1.2.** Attainment of Course Outcomes

#### **1.2.1.** Describe the assessment processes used to gather the data upon which the

#### evaluation of Course Outcome is based

| Assessment Process  | Evaluation  |
|---|---|
|   | Theory  |
| Continuous Assessment<br>Tests + Model Exam<br>End Semester   | Two Internal Assessment Tests to be conducted each for 50 marks<br>(One best will be taken, Marks Reduced to 5)<br>One model exam to be conducted 75 marks duration 3 hours,<br>coverning the entire syllabus and (Marks reduced to 5)<br>Three assignment 20 marks each (Marsk Reducted to 05) Two<br>seminar per subject 5 marks to be added with assignment marks<br>Attendance 5 marks – Total 25 |
| Examination   | 75  |
|   | Laboratory  |
| Continuous Assessment<br>Tests<br>End Semester<br>Examination | 8/10 Lab excercies 20 marks each (Reduced to 20)Attendacne 5 Marks – Total 25Will be conducted as per DoTE schedule for 75 marks  |
| Examination   | Project Work  |
| Final Year Projects   | Two Reviews for 10 marks each and Attendacne 5 Marks – Total 25         Board examination Viva Voce 25 marks         Demonstration /Presentation 20 marks         Written test marks         Entrepreneurship 10 marks         Environment Management 10 marks         Disaster Management 10 marks   |
|   | Others  |
| Assignments   | For Each subject three assignment are to be given each for 20 marks<br>and average marks scored should be reduced for 5 marks   |
| Seminars  | Two seminar per subject 5 marks to be added with assignemtn marks   |
| Course Feedback*  |   |

# **1.2.2.** Record the attainment of Course Outcomes of all courses with respect to set attainment levels

The set attainment value is fixed based on the performance of students in the examination of previous years. Once the set attainment level is reached, the set attainment value is increased for the successive academic years.

- Attainment Level 1 (slight): 60% of students scoring more than set attainment level in the final examination.
- Attainment Level 2 (moderate): 70% of students scoring more than set attainment level in the final examination.
- Attainment Level 3 (substantial): 80 % of students scoring more than set attainment level in the final examination.

\*\*Attainment is measured in terms of actual percentage of students getting set percentage of marks

| 2        | Course                                      | DOTE               |                                      |                      | Interna<br>l       |                                      |                      | Total                |
|----------|---|--------------------|--------------------------------------|----------------------|--------------------|--------------------------------------|----------------------|----------------------|
| Semester |   | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Attainme<br>nt level |
|          | Communicatio<br>n English - 1               | 70                 | 61                                   | 1                    | 80                 | 77.24                                | 2                    | 1.20                 |
|          | 30012 - Engg.<br>Mathematics -<br>1         | 65                 | 63.03                                | 1                    | 75                 | 81.26                                | 3                    | 1.40                 |
|          | 30013 - Engg.<br>Physics - 1                | 65                 | 62.18                                | 1                    | 75                 | 80.43                                | 3                    | 1.40                 |
| 1        | <b>30014 - Engg.</b><br>Chemistry - 1       | 55                 | 81.51                                | 3                    | 60                 | 81.32                                | 3                    | 3.00                 |
|          | <b>30015 - Engg.</b><br>Graphics - 1        | 60                 | 88.24                                | 3                    | 70                 | 84.15                                | 3                    | 3.00                 |
|          | 30016 - Engg.<br>Physics<br>Practical - 1   | 80                 | 76.47                                | 2                    | 85                 | 80.23                                | 3                    | 2.20                 |
|          | 30017 - Engg.<br>Chemistry<br>Practical - 1 | 80                 | 91.59                                | 3                    | 90                 | 81.24                                | 3                    | 3.00                 |
|          | 30018 -<br>Workshop<br>Practical            | 70                 | 61                                   | 1                    | 80                 | 77.24                                | 2                    | 1.20                 |

| 5        | Course                                      | DOTE           |                                      |                      |                    | Total                                |                      |                      |
|----------|---|----------------|--------------------------------------|----------------------|--------------------|--------------------------------------|----------------------|----------------------|
| Semester |   | Set<br>target% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Attainme<br>nt level |
| 2        | 30021-                                      | 70             | 80.67                                | 3                    | 80                 | 73.24                                | 2                    | 2.80                 |
|          | Communicati<br>on English - 2               |                |                                      |                      |                    |                                      |                      |                      |
|          | 30022 - Engg.<br>Mathematics<br>– 2         | 60             | 67.22                                | 1                    | 70                 | 80.24                                | 3                    | 1.40                 |
|          | 30023 -<br>Applied.<br>Mathematics          | 70             | 77.31                                | 2                    | 80                 | 71.52                                | 2                    | 2.00                 |
|          | 30024 - Engg.<br>Physics - 2                |                |                                      |                      |                    |                                      |                      |                      |
|          | 30025 - Engg.<br>Chemistry -2               | 70             | 83.19                                | 3                    | 80                 | 76.34                                | 2                    | 2.80                 |
|          | 30026 - Engg.<br>Graphics - 2               | 80             | 73.10                                | 2                    | 90                 | 82.10                                | 3                    | 2.20                 |
|          | 30027 - Engg.<br>Physics<br>Practical - 2   | 90             | 80.67                                | 3                    | 95                 | 84.46                                | 3                    | 3.00                 |
|          | 30028 - Engg.<br>Chemistry<br>Practical - 2 | 55             | 89.07                                | 3                    | 60                 | 83.21                                | 3                    | 3.00                 |

|          |   |                    | DOTE                                 |                      | Internal           |                                      |                      |                               |
|----------|---|--------------------|--------------------------------------|----------------------|--------------------|--------------------------------------|----------------------|-------------------------------|
| Semester | Course  | Set<br>target<br>% | %<br>crossi<br>ng the<br>target<br>% | Attainm<br>ent level | Set<br>target<br>% | %<br>crossi<br>ng the<br>target<br>% | Attainm<br>ent level | Total<br>Attainm<br>ent level |
| 3        | 38231-PRINTING<br>PROCESSESS                  | 56                 | 80                                   | 3                    | 80                 | 77.37                                | 2                    | 2.80                          |
|          | 38232 - VISUAL<br>DESIGN & DTP                | 60                 | 70.02                                | 2                    | 85                 | 86.8                                 | 3                    | 2.20                          |
|          | 38233 - IMAGE<br>PROCESSING                   | 60                 | 70                                   | 2                    | 75                 | 67.8                                 | 1                    | 1.80                          |
|          | 38234 - DESIGN<br>STUDIO<br>PRACTICAL         | 70                 | 71.73                                | 2                    | 85                 | 82.48                                | 3                    | 2.20                          |
|          | 38235 - IMAGE<br>PROCESSING<br>PRACTICAL      | 60                 | 66.67                                | 1                    | 80                 | 72.99                                | 2                    | 1.20                          |
|          | 38236 - PRINTING<br>PRIMER<br>PRACTICAL       | 56                 | 77.53                                | 2                    | 75                 | 74.45                                | 2                    | 2.00                          |
|          | 30001 - COMPUTER<br>APPLICATIONS<br>PRACTICAL | 60                 | 84.78                                | 3                    | 80                 | 84.7                                 | 3                    | 3.00                          |

|          |  | Ι                  | DOTE                                |                          |                    |                                      |                      |                               |
|----------|--|--------------------|-------------------------------------|--------------------------|--------------------|--------------------------------------|----------------------|-------------------------------|
| Semester | Course   | Set<br>target<br>% | %<br>crossing<br>the<br>target<br>% | Attai<br>nmen<br>t level | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Total<br>Attainmen<br>t level |
| 4        | 38241 -<br>OFFSET<br>PRINTING<br>TECHNOLOG<br>Y                          | 60                 | 84.78                               | 3                        | 70                 | 100                                  | 3                    | 3.00                          |
|          | 38242 -<br>GRAVURE<br>FLEXOGRAPH<br>Y AND<br>SCREEN<br>PRINTING          | 56                 | 81.88                               | 3                        | 75                 | 65.9                                 | 1                    | 2.60                          |
|          | 38243 - PRINT<br>FINISHING<br>AND<br>CONVERTING                          | 60                 | 61.59                               | 1                        | 80                 | 63.76                                | 1                    | 1.00                          |
|          | 38244 -<br>PRINTING<br>MATERIALS   | 56                 | 84.78                               | 3                        | 80                 | 60.86                                | 1                    | 2.60                          |
|          | 38245 -<br>DESKTOP<br>PUBLISHING<br>FOR PRINT<br>PRODUCTION<br>PRACTICAL | 56                 | 72.46                               | 2                        | 75                 | 60.8                                 | 1                    | 1.80                          |
|          | 38246 -<br>OFFSET<br>MACHINES<br>PRACTICAL                               | 55                 | 75.36                               | 2                        | 75                 | 74.6                                 | 2                    | 2.00                          |
|          | 38247 - PRINT<br>FINISHING<br>PRACTICAL                                  | 80                 | 78.26                               | 2                        | 85                 | 88.4                                 | 3                    | 2.20                          |

|          |   | DOTE               |                                      |                          |                    | Total                                |                      |                      |
|----------|---|--------------------|--------------------------------------|--------------------------|--------------------|--------------------------------------|----------------------|----------------------|
| Semester | Course<br>Semester  | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attain<br>m ent<br>level | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Attainme<br>nt level |
|          | 38251 -<br>DIGITA<br>L<br>PREPR<br>ESS                              | 54                 | 83.21                                | 3                        | 65                 | 89.1                                 | 3                    | 3.00                 |
|          | 38252 -<br>E-<br>HING   | 50                 | 80.29                                | 3                        | 55                 | 85.47                                | 3                    | 3.00                 |
|          | ADVAN<br>CED<br>PRINTI<br>NG<br>TECHN<br>OLOGI                      | 55                 | 75.91                                | 2                        | 65                 | 71.67                                | 2                    | 2.00                 |
|          | -<br>PAC<br>KAGI<br>NG<br>TEC<br>HNO<br>LOG                         | 57                 | 85.40                                | 3                        | 60                 | 80                                   | 3                    | 3.00                 |
| 5        | 38255 -<br>DIGITA<br>L<br>PREPR<br>ESS<br>PRACTI<br>CAL             | 56                 | 82.48                                | 3                        | 65                 | 81.67                                | 3                    | 3.00                 |
|          | 38256 -<br>PACKA<br>GING<br>PRACTI<br>CAL                           | 60                 | 60.58                                | 1                        | 65                 | 80.38                                | 3                    | 1.40                 |
|          | 30002 -<br>LIFE AND<br>EMPLOY<br>ABILITY<br>SKILLS<br>PRACTIC<br>AL | 80                 | 80.29                                | 3                        | 90                 | 71.66                                | 2                    | 2.80                 |

|          | Course  | DOTE               |                                      |                      | Internal           |                                      |                      |                              |
|----------|---|--------------------|--------------------------------------|----------------------|--------------------|--------------------------------------|----------------------|------------------------------|
| Semester |   | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Set<br>target<br>% | %<br>crossin<br>g the<br>target<br>% | Attainmen<br>t level | Total<br>Attainment<br>level |
| 6        | 38261 - TOTAL<br>QUALITY<br>MANAGEMEN<br>T          | 60                 | 84.78                                | 3                    | 70                 | 100                                  | 3                    | 3.00                         |
|          | 38262 -<br>PRINTING<br>PRESS<br>MANAGEMEN<br>T      | 56                 | 81.88                                | 3                    | 75                 | 65.9                                 | 1                    | 2.60                         |
|          | 38263 -<br>PRINTING<br>MACHINERY<br>MAINTENANC<br>E | 60                 | 61.59                                | 1                    | 80                 | 63.76                                | 1                    | 1.00                         |
|          | 38264 - PRINT<br>QUALITY<br>ASSURANCE<br>PRACTICAL  | 56                 | 84.78                                | 3                    | 80                 | 60.86                                | 1                    | 2.60                         |
|          | 38265 -<br>MACHINERY<br>MAINTENANC<br>E PRACTICAL   | 56                 | 72.46                                | 2                    | 75                 | 60.8                                 | 1                    | 1.80                         |
|          | 38266 -<br>INDUSTRIAL<br>EXPOSURE<br>AND REPORT     | 55                 | 75.36                                | 2                    | 75                 | 74.6                                 | 2                    | 2.00                         |
|          | 38267 -<br>PROJECT<br>WORK                          | 80                 | 78.26                                | 2                    | 85                 | 88.4                                 | 3                    | 2.20                         |

#### **1.3.** Attainment of Course Outcomes

# 1.3.1. Describe the assessment processes used to gather the data upon which the

#### evaluation of Course Outcome is based (10)

| Assessment Process  | Evaluation   |  |  |  |
|---|--|--|--|--|
|   | Theory   |  |  |  |
| Class tests (Unit Test)   | Class tests are conducted now and then by the class incharge after completion of every unit during class hour for 25 marks.  |  |  |  |
| Continuous AssessmentTwo Internal Assessment Tests are conducted each for 50<br>completion of every two units (6th week and 12th week of t<br>semester)TestsOne model exam conducted 75 marks duration 3 hours, co<br>entire syllabus |  |  |  |  |
| End Semester<br>Examination   | Will be conducted as per Directorat of Technical Education schedule  |  |  |  |
|   | Laboratory   |  |  |  |
| Model Exam  | Lab model exam will be conducted after completion of all the experiments for 75 marks for a duration of 3 Hrs  |  |  |  |
| End Semester<br>Examination   | Will be conducted as per Directorate of Technical Education schedule   |  |  |  |
|   | Project Work   |  |  |  |
| Final Year Projects   | Students will be divided into groups, wherein each group will have a maximum of 6 students. Every group will be mentored by a faculty (Internal / External). Three reviews will be conducted and the students will be reviewed by a panel of Lecturers.                  |  |  |  |
|   | Others   |  |  |  |
| Assignments   | Three Assignment topics per subject will be given to students  |  |  |  |
| Tutorials   | The entire class will be divided into three batches where each batch<br>will have 20 to 23 students. A faculty will be allotted for each batch.<br>Every week an hour will be conducted for tutorials wherein the<br>faculty will make the students solve more problems. |  |  |  |
| Seminars  | One hour per week will be allotted for the seminar session wherein students present topics of their interest.  |  |  |  |

# **1.3.2.** Record the attainment of Course Outcomes of all courses with respect to set attainment levels

The set attainment value is fixed based on the performance of students in the Board examination of previous years. Once the set attainment level is reached, the set attainment value is increased for the successive academic years.

- Attainment Level 1 (slight): 60% of students scoring more than set attainment level in the final examination.
- Attainment Level 2 (moderate): 70% of students scoring more than set attainment level in the final examination.
- Attainment Level 3 (substantial): 80 % of students scoring more than set attainment level in the final examination.

\*\*Attainment is measured in terms of actual percentage of students getting set percentage

of marks

#### 1.4. Attainment of Program Outcomes and Program Specific Outcomes

#### 1.4.1. Describe assessment tools and processes used for measuring the attainment of each

| Assessment Process | Frequency   |   |  |  |  |  |  |
|--------------------|---|---|--|--|--|--|--|
| Direct Assessment  |   |   |  |  |  |  |  |
| Theory             |   |   |  |  |  |  |  |
| Class tests        | Class tests are conducted by the course<br>incharge after completion of every unit during<br>class hour for 25 marks. | Every 3 week of the<br>semester twice for<br>each subject |  |  |  |  |  |

|                     | T  |                        |  |  |  |  |  |
|---------------------|--|------------------------|--|--|--|--|--|
|                     | Two continuous assessment tests will be  |                        |  |  |  |  |  |
|                     | conducted. The first two will be conducted   |                        |  |  |  |  |  |
| Continuous          | for 50 marks for the duration of 2.00 Hrs  | Thrice in a semester   |  |  |  |  |  |
| Assessment tests    | covering 2 units. The last assessment will be  |                        |  |  |  |  |  |
|                     | a model exam for 75 marks for a duration of  |                        |  |  |  |  |  |
|                     | 3 Hrs.   |                        |  |  |  |  |  |
| End Semester        | Will be conducted as per DoTE Board of   | Once in a semester     |  |  |  |  |  |
| Examination         | Examinaiton schedule   | Once in a semester     |  |  |  |  |  |
|                     | Laboratory   |                        |  |  |  |  |  |
|                     | Lab model exam will be conducted after   |                        |  |  |  |  |  |
| Model Exam          | completion of all the experiments for 75   | Once in a semester     |  |  |  |  |  |
|                     | marks for a duration of 3 Hrs  |                        |  |  |  |  |  |
| End Semester        | Will be conducted as per DoTE Board of   | Once in a semester     |  |  |  |  |  |
| Examination         | Examinaiton schedule   | Once in a semester     |  |  |  |  |  |
|                     | Project Work   |                        |  |  |  |  |  |
| Final Year Projects | Students will be divided into groups, wherein<br>each group will have a maximum of 6<br>students. Every group will be mentored by a<br>faculty. Three reviews will be conducted and<br>the students will be reviewed by a panel of<br>Lecturers. | Once during final year |  |  |  |  |  |

|                | Others   |   |
|----------------|--|---|
| Publications   | The final year project groups with the<br>guidance of their supervisor should publish<br>their work  | Minimum two<br>Publication during final<br>year   |
| Assignments    | Three Assignment topics per subject will be given to students  | Maximum of three<br>assignments per<br>subject per semester   |
| Seminars       | One hour per week will be allotted for the<br>seminar session, wherein students present<br>topics of their interest for every course of the<br>semester.   | A minimum of one<br>seminar per student per<br>semester per course  |
| Tutorials      | The entire class will be divided into three<br>batches where each batch will have 20 to 23<br>students. A faculty will be allotted for each<br>batch. Every week an hour will be conducted<br>for tutorials wherein the faculty will make<br>the students solve more problems.   | 15 sessions for<br>subjects with tutorial<br>as per curriculum  |
| Mock Interview | <ul> <li>During 5<sup>th</sup> semester, the students will attend mock interviews conducted by faculty team from the college on different subjects for placement preparation. The mock interviews will be conducted after college hours.</li> <li>During 6<sup>th</sup> semester, the students will attend mock interviews conducted by department faculty team along with the alumni from the industry on different subjects for placement preparation. The mock interviews will be conducted after college hours.</li> </ul> | 1       mock interview         during the 5 <sup>th</sup> semester         1       mock interview         during the 6 <sup>th</sup> semester |

| Summer and winter    | Students attend summer and winter industrial training camps which help acquire practical | A minimum of one      |  |  |
|----------------------|--|-----------------------|--|--|
| 1                    | training camps which help acquire practical  |                       |  |  |
|                      | training earlips which help acquire practical  | in-plant training per |  |  |
|                      | knowledge.   | Year.                 |  |  |
|                      | Indirect Assessment  |                       |  |  |
|                      | Survey   |                       |  |  |
|                      | Get the feedback from the Alumni for the   |                       |  |  |
| Alumni survey*       | improvement of infrastructure, library   | Twice in a year       |  |  |
|                      | facilities, placement activities and industry-   | Twice in a year       |  |  |
|                      | Institute interaction.   |                       |  |  |
|                      | Get the expectations from the students during  | Once during the       |  |  |
| Student Entry survey | the orientation programme to know their  | Once during the       |  |  |
| 1                    | requirements for the their improvement   | orientation programme |  |  |
|                      | Get the feedback from the students after their   | Once after course     |  |  |
| Student Exit survey* | course completion for the betterment of the  |                       |  |  |
|                      | department   | completion            |  |  |
|                      | Feedback   |                       |  |  |
| Student Mid Semester | Get the feedback after a month from the Start  |                       |  |  |
|                      | of the semester to improve teaching-learning   | Once in a semester    |  |  |
|                      | process  |                       |  |  |
| Student End Semester | Get the feedback after syllabus completion   |                       |  |  |
| Feedback             | to improve teaching-learning process   | Once in a semester    |  |  |
|                      | Get the feedback from the parents during the   | Once during the       |  |  |
| Doment Eagliburgh    | orientation programme for the improvement  | orientation programme |  |  |
| Parent Feedback      | of the student performance and conduct.  | (Parents Meet) and as |  |  |
|                      |  | and when              |  |  |
|                      |  | needed                |  |  |
|                      | Get the feedback from the industry to know   |                       |  |  |
|                      | the gaps to be filled to improve our students  | After every campus    |  |  |
| · I ·                | =  | drive, guest lecture, |  |  |
| Industry foodbook*   | skill and placement count.   | drive, guest lecture, |  |  |

| Others   |   |                 |  |  |  |  |  |
|--|---|-----------------|--|--|--|--|--|
| Sun Branding<br>Soluiton best<br>student award | Based on the academic, co-curricular and<br>extracurricular achievements a student from<br>final year will be chosen as best student.SBSL will award the student. | Once in a year  |  |  |  |  |  |
| SIGA best project<br>award                     | Base on the novelty and societal impact a<br>project will be chosen as best project. SIGA<br>will award the students involved in that<br>project work.            | Once in a year  |  |  |  |  |  |
|  | demonstrate the degree of attainment of PO's  |                 |  |  |  |  |  |
| (Attainment thr<br>course outcome/3            | ough Board examination and internal assessment)   | )*attainment of |  |  |  |  |  |

| Semest<br>er | Course                                      | PO<br>1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8  | PO9  | PO10 | PO11 | PO12 |
|--------------|---|----------|------|------|------|------|------|------|------|------|------|------|------|
|              | Communication<br>English - 1                | -        | -    | -    | 1.87 | -    | 0.93 | 0.93 | 0.93 | 1.87 | 2.80 | 0.93 | 0.93 |
|              | 30012 - Engg.<br>Mathematics - 1            | 1.4<br>0 | 1.40 | 0.93 | 0.93 | 0.93 | 0.47 | 0.47 | -    | 0.93 | 0.47 | -    | 0.47 |
|              | 30013 - Engg.<br>Physics - 1                | 2.0<br>0 | 2.00 | 1.33 | 1.33 | 0.67 | 0.67 | 0.67 | -    | 0.67 | 0.67 | -    | 0.67 |
|              | 30014 - Engg.<br>Chemistry - 1              | 2.8<br>0 | 1.87 | 1.87 | 1.87 | 1.87 | 1.87 | 0.93 | -    | 0.93 | 1.87 | -    | 0.93 |
| Ι            | 30015 - Engg.<br>Graphics - 1               | 2.8<br>0 | 2.80 | 1.87 | 1.87 | 1.87 | 0.93 | 0.93 | 0.93 | 0.93 | 2.80 | -    | 0.93 |
|              | 30016 - Engg.<br>Physics Practical -<br>1   | 3.0<br>0 | 3.00 | 2.00 | 2.00 | 3.00 | -    | -    | -    | 1.00 | 2.00 | -    | 1.00 |
|              | 30017 - Engg.<br>Chemistry<br>Practical - 1 | 3.0<br>0 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | -    | 1.00 |
|              | 30018 - Workshop<br>Practical               | 2.2<br>0 | 2.20 | 1.47 | 1.47 | 2.20 | -    | 0.73 | -    | 0.73 | 1.47 | -    | 0.73 |
|              | 30021-<br>Communication<br>English - 2      | -        | -    | -    | 1.87 | -    | 0.93 | 0.93 | 0.93 | 1.87 | 2.80 | 0.93 | 0.93 |
| Π            | 30022 - Engg.<br>Mathematics – 2            | 1.4<br>0 | 0.93 | 0.93 | 0.47 | 0.93 | 0.47 | -    | 0.47 | 0.47 | 0.47 | -    | 0.47 |
|              | 30023 - Applied.<br>Mathematics             | 1.4<br>0 | 1.40 | 0.93 | 0.93 | 0.47 | 0.47 | 0.47 | -    | 0.47 | 0.47 | -    | 0.47 |

1.4.2. Provide results of evaluation of each PO & PSO (40)

| Semester | Course                                      | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8  | PO9  | PO10 | PO11 | PO12 |
|----------|---|------|------|------|------|------|------|------|------|------|------|------|------|
|          |   |      |      |      |      |      |      |      |      |      |      |      |      |
|          | 30024 - Engg.<br>Physics - 2                | 1.20 | 0.80 | 0.80 | 0.80 | 0.80 | 0.80 | 0.40 | -    | 0.40 | 0.80 | 0.80 | 0.40 |
|          | 30025 - Engg.<br>Chemistry -2               | 3.00 | 2.00 | 1.00 | 1.00 | 3.00 | -    | 1.00 | -    | 1.00 | -    | 1.00 | 2.00 |
|          | 30026 - Engg.<br>Graphics - 2               | 3.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | -    | -    | 2.00 | -    | 2.00 | 2.00 |
|          | 30027 - Engg.<br>Physics<br>Practical - 2   | 2.20 | 1.47 | 1.47 | 1.47 | 0.73 | 1.47 | 0.73 | 0.73 | 0.73 | 0.73 | -    | 0.73 |
|          | 30028 - Engg.<br>Chemistry<br>Practical - 2 | 3.00 | 2.00 | 2.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 1.00 |
|          | 38231-<br>PRINTING<br>PROCESSES<br>S        | 2.80 | 2.80 | 1.87 | 1.87 | -    | 1.87 | 1.87 | 1.87 | -    | -    | -    | -    |
| III      | 38232 -<br>VISUAL<br>DESIGN &<br>DTP        | 2.20 | 1.47 | 1.47 | 1.47 | 0.73 | 0.73 | 1.47 | -    | 0.73 | -    | 1.47 | -    |
|          | 38233 -<br>IMAGE<br>PROCESSIN<br>G          | 1.80 | 1.80 | 1.20 | 1.20 | 1.20 | 0.60 | 0.60 | -    | 0.60 | -    | 1.20 | 0.60 |

| Semester | Course  | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | <b>PO7</b> | PO8 | PO9  | PO10 | PO11 | PO12 |
|----------|---|------|------|------|------|------|------|------------|-----|------|------|------|------|
|          | 38234 -<br>DESIGN<br>STUDIO<br>PRACTICA<br>L                    | -    | 0.73 | -    | -    | -    | 1.47 | 2.20       | -   | 0.73 | -    | -    | -    |
|          | 38235 -<br>IMAGE<br>PROCES<br>SING<br>PRACTI<br>CAL             | 1.20 | 0.80 | 0.80 | 0.40 | -    | 0.80 | 0.80       | -   | 0.40 | -    | -    | 0.40 |
|          | 38236 -<br>PRINTIN<br>G<br>PRIMER<br>PRACTIC<br>AL              | 2.00 | 0.67 | -    | -    | 1.33 | 0.67 | -          | -   | 0.67 | -    | 0.67 | -    |
|          | 30001 -<br>COMPUTE<br>R<br>APPLICATI<br>ONS<br>PRACTICA<br>L    | 3.00 | 3.00 | 3.00 | 2.00 | 1.00 | -    | -          | -   | 2.00 | 2.00 | 2.00 | -    |
|          | 38241 -<br>OFFSET<br>PRINTING<br>TECHNOLO<br>GY                 | 3.00 | 3.00 | 1.00 | 2.00 | 2.00 | -    | -          | -   | -    | -    | 2.00 | -    |
| IV       | 38242 -<br>GRAVURE<br>FLEXOGRA<br>PHY AND<br>SCREEN<br>PRINTING | 2.60 | 1.73 | 1.73 | 1.73 | -    | 1.73 | 1.73       | -   | -    | -    | 1.73 | 0.87 |
|          | 38243 -<br>PRINT<br>FINISHING<br>AND<br>CONVERTIN<br>G          | 1.00 | 0.67 | 0.67 | 0.67 | -    | -    | -          | -   | 0.33 | -    | 0.33 | 0.33 |

| Semester | Course  | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8 | PO9  | PO10 | PO11 | PO12 |
|----------|---|------|------|------|------|------|------|------|-----|------|------|------|------|
|          | 38244 -<br>PRINTING<br>MATERIALS                                    | 2.60 | 2.60 | 1.73 | 0.87 | 0.87 | 1.73 | 1.73 | -   | 0.87 | -    | 0.87 | 0.87 |
|          | 38245 -<br>DESKTOP<br>PUBLISHIN<br>G FOR<br>PRINT<br>PRODUCTIO<br>N | 1.80 | 1.80 | 1.20 | 1.20 | 1.20 | 1.20 | 0.60 | -   | 0.60 | 0.60 | 1.20 | -    |
|          | PRACTICAL<br>38246 -<br>OFFSET<br>MACHINES<br>PRACTICAL             | 2.00 | 2.00 | 1.33 | 1.33 | 2.00 | 0.67 | 1.33 | -   | 0.67 | -    | 1.33 | 0.67 |
|          | 38247 -<br>PRINT<br>FINISHING<br>PRACTICAL                          | 2.20 | 2.20 | 1.47 | 1.47 | 2.20 | -    | -    | -   | 1.47 | 0.73 | -    | 0.73 |
|          | 38251 -<br>DIGITAL<br>PREPRES<br>S                                  | 3.00 | 2.00 | 1.00 | -    | -    | 2.00 | 2.00 | -   | -    | -    | 1.00 | 1.00 |
| V        | 38252 - E-<br>PUBLISHI<br>NG  | 3.00 | 3.00 | 3.00 | 2.00 | 2.00 | 1.00 | -    | -   | -    | -    | -    | 1.00 |
|          | 38253 -<br>ADVANCE<br>D<br>PRINTING<br>TECHNOL                      | 2.00 | 1.33 | 1.33 | 1.33 | 2.00 | 0.67 | 0.67 | -   | -    | -    | 0.67 | -    |
|          | PAC<br>KAGI<br>NG<br>HNO  | 3.00 | 3.00 | 2.00 | 2.00 | 1.00 | 2.00 | 1.00 | -   | 2.00 | -    | 2.00 | 1.00 |

| Semester | Course  | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8 | PO9  | PO10 | PO11 | PO12 |
|----------|---|------|------|------|------|------|------|------|-----|------|------|------|------|
|          |   |      |      |      |      |      |      |      |     |      |      |      |      |
|          | 38251 -<br>DIGITA<br>L<br>PREPR<br>ESS                  | 3.00 | 2.00 | 2.00 | 2.00 | -    | 1.00 | 2.00 | -   | 1.00 | -    | 2.00 | 1.00 |
|          | 38252 - E-<br>PUBLISHI<br>NG                            | 0.93 | 1.40 | 1.40 | 0.93 | 0.93 | 0.93 | 0.93 | -   | -    | -    | -    | 0.47 |
|          | 38253 -<br>ADVANCED<br>PRINTING<br>TECHNOLO<br>GIES     | 2.80 | 0.93 | -    | -    | 2.80 | 0.93 | -    | -   | -    | -    | -    | -    |
|          | 38261 -<br>TOTAL<br>QUALITY<br>MANAGEME<br>NT           | 2.00 | 3.00 | 3.00 | 2.00 | 1.00 | 1.00 | 1.00 | -   | -    | -    | 1.00 | 1.00 |
| VI       | 38262 -<br>PRINTING<br>PRESS<br>MANAGEME<br>NT          | 2.00 | 3.00 | 3.00 | 3.00 | 2.00 | 1.00 | 1.00 | -   | 1.00 | -    | -    | 1.00 |
|          | 38263 -<br>PRINTING<br>MACHINER<br>Y<br>MAINTENA<br>NCE | 0.93 | -    | -    | -    | -    | 0.47 | 0.47 | -   | 0.47 | -    | -    | 0.47 |
|          | 38264 -<br>PRINT<br>QUALITY<br>ASSURANCE<br>PRACTICAL   | 0.93 | 0.47 | 1.40 | 0.93 | 1.40 | 0.93 | -    | -   | 0.47 | -    | 0.47 | 0.47 |

| Semester                     | Course   | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8  | PO9  | PO10 | PO11 | PO12 |
|------------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|
|                              | 38264 -<br>PRINT<br>QUALITY<br>ASSURANCE<br>PRACTICAL    | 1.20 | 1.80 | 1.80 | 1.20 | 0.60 | 1.20 | 1.20 | -    | 0.60 | -    | -    | 0.60 |
|                              | 38265 -<br>MACHINER<br>Y<br>MAINTENA<br>NCE<br>PRACTICAL | 1.47 | -    | -    | -    | 2.20 | 0.73 | 1.47 | -    | -    | -    | 0.73 | -    |
|                              | 38266 -<br>INDUSTRIA<br>L<br>EXPOSURE<br>AND<br>REPORT   | -    | -    | -    | -    | -    | -    | 2.00 | 3.00 | 2.00 | 2.00 | 1.00 | -    |
|                              | 38267 -<br>PROJECT<br>WORK                               | 2.00 | 3.00 | 3.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 3.00 | 3.00 | 2.00 |
| Semester                     | Course   | PO1  | PO2  | PO3  | PO4  | PO5  | PO6  | PO7  | PO8  | PO9  | PO10 | PO11 | PO12 |
| DIRECT<br>ATTAINN<br>AVERAG  | MENT LEVEL<br>E  | 2.68 | 2.35 | 2.09 | 1.87 | 2.00 | 1.46 | 1.50 | 1.43 | 1.45 | 1.79 | 1.56 | 1.07 |
| DIRECT<br>ATTAINN            | DIRECT<br>ATTAINMENT LEVEL                               |      | 2.38 | 2.38 | 2.41 | 2.42 | 2.29 | 2.31 | 2.48 | 2.48 | 2.59 | 2.52 | 2.37 |
| INDIRECT<br>ATTAINMENT LEVEL |  | 2.70 | 2.20 | 2.50 | 2.20 | 2.50 | 2.20 | 2.50 | 2.40 | 2.70 | 2.70 | 1.90 | 2.60 |
| TOTAL<br>ATTAINMENT LEVEL    |  | 2.44 | 2.35 | 2.40 | 2.36 | 2.44 | 2.27 | 2.35 | 2.46 | 2.52 | 2.61 | 2.39 | 2.41 |

| SEMESTER | COURSE                                | PSO1 | PSO2 | PSO3 |
|----------|---------------------------------------|------|------|------|
|          | Communication English - 1             | -    | -    | -    |
|          | 30012 - Engg. Mathematics - 1         | 0.47 | 0.47 | -    |
|          | 30013 - Engg. Physics - 1             | 0.67 | -    | -    |
|          | 30014 - Engg. Chemistry - 1           | 0.93 | -    | -    |
| Ι        | 30015 - Engg. Graphics - 1            | 0.93 | -    | -    |
|          | 30016 - Engg. Physics Practical - 1   | 1.00 | -    | -    |
|          | 30017 - Engg. Chemistry Practical - 1 | 1.00 | 1.00 | -    |
|          | 30018 - Workshop Practical            | 0.73 | -    | -    |
|          | 30021-Communication English - 2       | -    | -    | -    |
|          | 30022 - Engg. Mathematics – 2         | 0.47 | 0.47 | -    |
|          | 30023 - Applied. Mathematics          | 0.47 | -    | -    |
|          | 30024 - Engg. Physics - 2             | 0.40 | -    | -    |
| II       | 30025 - Engg. Chemistry -2            | 1.00 | 1.00 | -    |
|          | 30026 - Engg. Graphics - 2            | 1.00 | -    | -    |
|          | 30027 - Engg. Physics Practical - 2   | 0.73 | -    | -    |
|          | 30028 - Engg. Chemistry Practical - 2 | 1.00 | -    | -    |

| SEMESTER | COURSE  | PSO1 | PSO2 | PSO3 |
|----------|---|------|------|------|
|          | 38231-PRINTING PROCESSESS                                       | 2.80 | -    | -    |
|          | 38232 - VISUAL DESIGN & DTP                                     | 1.47 | 0.73 | 1.47 |
|          | 38233 - IMAGE PROCESSING  | 1.80 | -    | 0.60 |
|          | 38234 - DESIGN STUDIO<br>PRACTICAL                              | -    | -    | 2.20 |
| ш        | 38235 - IMAGE PROCESSING<br>PRACTICAL                           | 0.80 | 1.20 | 0.40 |
| 111      | 38236 - PRINTING PRIMER<br>PRACTICAL                            | 2.00 | 0.67 | -    |
|          | 30001 - COMPUTER<br>APPLICATIONS PRACTICAL                      | 2.00 | 1.00 | -    |
|          | 38241 - OFFSET PRINTING<br>TECHNOLOGY                           | 2.00 | -    | -    |
|          | 38242 - GRAVURE FLEXOGRAPHY<br>AND SCREEN PRINTING              | 0.87 | 0.87 | 0.87 |
|          | 38243 - PRINT FINISHING AND<br>CONVERTING                       | -    | -    | 1.00 |
| IV       | 38244 - PRINTING MATERIALS                                      | 2.60 | 1.73 | 0.87 |
|          | 38245 - DESKTOP PUBLISHING<br>FOR PRINT PRODUCTION<br>PRACTICAL | 1.20 | 1.20 | 0.60 |
|          | 38246 - OFFSET MACHINES<br>PRACTICAL                            | 2.00 | 0.67 | -    |

| SEMESTER | COURSE  | PSO1 | PSO2 | PSO3 |
|----------|---|------|------|------|
|          | 38247 - PRINT FINISHING<br>PRACTICAL  | 2.20 | 0.73 | -    |
|          | 38251<br>-<br>DIGI<br>TAL<br>PREP<br>RESS   | -    | 1.00 | 1.00 |
|          | 38252<br>- E-<br>ISHI<br>NG   | 2.00 | -    | -    |
|          | 38253<br>-<br>ADV<br>ADV<br>ANC<br>ED<br>FRIN<br>FRIN<br>FRIN<br>FRIN<br>FRIN<br>FRIN<br>FRIN<br>FRIN | -    | 1.33 | -    |
|          | 38254<br>   | 3.00 | 3.00 | 3.00 |
|          | 38255<br>-<br>DIGI<br>TAL<br>PREP<br>PREP<br>PRAC<br>TICA<br>L  | 1.00 | 3.00 | 1.00 |
| V        | 38256<br>38256<br>PAC<br>FAGI<br>NG<br>PRAC<br>TICA<br>L  | 1.40 | 0.93 | 1.40 |
|          | 30002 -<br>LIFE<br>AND<br>EMPLO<br>YABILI<br>TY<br>SKILLS<br>PRACTI<br>CAL                            | 0.93 | -    | -    |
|          | 38261 - TOTAL QUALITY<br>MANAGEMENT   | 2.00 | 1.00 | 2.00 |
|          | 38262 - PRINTING PRESS<br>MANAGEMENT  | 3.00 | 3.00 | 3.00 |
| VI       | 38263 - PRINTING MACHINERY<br>MAINTENANCE   | -    | 0.93 | 0.47 |
|          | 38264 - PRINT QUALITY<br>ASSURANCE PRACTICAL  | -    | 0.93 | 0.47 |

| SEMESTER    | COURSE                                     | PSO1 | PSO2 | PSO3 |
|-------------|--|------|------|------|
|             | 38265 - MACHINERY<br>MAINTENANCE PRACTICAL | 0.60 | -    | -    |
|             | 38266 - INDUSTRIAL EXPOSURE<br>AND REPORT  | 0.73 | -    | -    |
|             | 38267 - PROJECT WORK                       | 3.00 | 3.00 | 3.00 |
| SEMESTER    | COURSE                                     | PSO1 | PSO2 | PSO3 |
| DIRECT PSO  | ATTAINMENT LEVEL AVERAGE                   | 1.37 | 1.48 | 1.26 |
| DIRECT ATT. | AINMENT LEVEL                              | 2.41 | 2.39 | 2.22 |
| INDIRECT AT | TAINMENT LEVEL                             | 2.50 | 2.30 | 2.37 |
| TOTAL ATTA  | INMENT LEVEL                               | 2.43 | 2.38 | 2.25 |

The Indirect attainment level is obtained from the alumini feedback. The feedback form was send or given to alumini students to get the indirect attainment level. The format is in Annexture III