



<b>Name of the Subject</b>	Design Thinking (19A99304)	<b>Class</b>	II B. Tech – I Sem
<b>Faculty Name</b>	Ms.N.Divya Sruthi	<b>AY</b>	2020-21
<b>Regulation</b>	R19	<b>Batch</b>	2019-23

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### Assignment Teaching Methodology

#### Introduction:

Assignment must be simple and enable the students to complete it within the stipulated time. Assignment must avoid ambiguous, complex information and instructional structure. Objectives of the assignments must be clear and definite.

#### Objective of the activity:

Using the assignment method, the teacher creates an assignment with clear instructions, milestones, and grading criteria based on an outcome that students need to achieve. The teacher monitors and advises students as they work on the assignment and provides feedback that challenges students to improve.

#### Execution Plan:

In order to Execution plan for the Assignments, the teacher should mind the following steps / stages before assigning the work to the students.

- The assignment must be Lesson concerned and related with the text books and curriculum.
- The topic / unit of the assignment must be explained with the availability of resources.
- The core of the subject or unit must be clarified.
- The hard and difficult portions of the assignment need to be explained well.
- The topics / units irrelevant to the assignments must be defined very well.
- The questions and answers for the assignment provided to the learners must comprise the following:
  - The questions must investigate the learners / students attitude.
  - The questions need to express whether the students have gone through the entire questions and assignment instructions.
  - The answers must be simple and smaller in nature.

- The questions must allocate space for diagrammatic illustrations by the students
- The questions can provide experimental work and tools for the students.

### Expected Outcomes:

- Provides opportunity in self learning for the students
- Better learning experiences will be gained when combined with other science teaching methods.
- Assignment provides sufficient flexibility in learning pace of the students. The slow learners too adapt with this method.
- Teachers' interruption is very much reduced and the students' active participation is encouraged.
- Teacher acts as a role of guide only.
- The students received a better training in the learning by doing method in this method.
- The information seeking and retrieval behaviour is developed among the students.
- It gives better understanding in scientific method and projects.
- It can provide space for the individuals learning attitude and their speed in learning process.

### Enclosures:

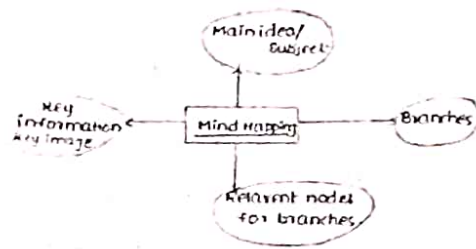
1. Enclose the Assignments submitted by the students.
2. Enclose screen shots of Assignment activity.

<p><u>SWOT Analysis:</u></p> <p>* The letters in the word SWOT explain the following words:</p> <ul style="list-style-type: none"> <li>→ S- Strengths</li> <li>→ W- Weakness</li> <li>→ O- Opportunities</li> <li>→ T- Threats</li> </ul> <p>* This technique offers you an advantage to know the strengths, weakness, opportunities and threats</p> <p>* We can find the best solution to any problem by this technique</p> <p>* You can come across new ideas with this technique</p> <p><u>Process:</u></p> <p>* SWOT analysis follows the following procedure:</p> <ol style="list-style-type: none"> <li>1. Writing your strengths, weakness, opportunities, threats on a paper</li> <li>2. calculating the percentage of the particular idea</li> <li>3. considering another idea and writing its SWOT values</li> <li>4. calculating the percentage and so on.</li> </ol> <p>This process continues until we calculate the percentage of all ideas</p> <p>After the calculation we have to choose the best idea with highest percentage.</p> <p><u>Example:</u></p> <p>For example consider a problem of <u>best coding</u></p> <p>so choosing right department in Blech and you are confused on selecting CSE or ECE.</p> <p>Now consider SWOT for CSE</p> <p>S- Interested in coding</p>	<p>O- Hising with good package</p> <p>T- No threats</p> <p>On observing above we can conclude that on choosing CSE we have maximum benefits and we have percentage about 95%. In CSE consider choosing ECE:</p> <p>S- Good at physics</p> <p>W- Not interested in working with electrical appliances</p> <p>O- Earning in good companies</p> <p>T- No threats</p> <p>On observing above we can have some weakness when compared to CSE and we can allot it with a percentage of 90%.</p> <p>So we can conclude that choosing CSE will be the best for me.</p> <p>Like the above we can solve any problem and find best idea.</p> <p><u>Outcomes of group discussion:</u></p> <p>During the group discussion our team members proposed some key points on SWOT Analysis they are;</p> <ol style="list-style-type: none"> <li>1. In SWOT Ideas of everyone is considered and studied</li> <li>2. We will get numerous of ideas</li> <li>3. We can understand the theme of the problem clearly:</li> </ol>
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### Mind Mapping:-

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- It is a graphical technique connection between various pieces of information or ideas.
  - It is also used in brainstorming for the project planning, problem solving and note making.
  - This is the area where you get to build a bridge between ideas and relationships.
  - You can start with writing down what goals and challenges that need to be worked out.
  - We can approach to the participant to think about any future or present.
  - Without any ideation tools we can implement mind mapping with a pencil and paper in hand.
  - In implementing of diagrammatic manner or visual format with more innovative representative characteristics that you need to know in the mind mapping.
1. The main idea/subject/central focus can be represented in central image.
  2. The primary themes radiating of your central image called 'branches'.
  3. You need to understand the key image (or) need know the associated line.
- Most words or key important can be represented



### Get deeper into Ideation and Brainstorming

- Brainstorming is an activity that will help you to generate more innovative ideas.
  - It is one of the methods of ideation which is the process of coming up with new ideas.
  - Ideation is the core to design thinking.
  - The main aim of the ideation stage is to use creativity and innovation in order to develop solutions.
  - Idea generation techniques are a method that encourages creating actions concentrating on techniques for divergent thinking.
  - Some of the important ideation generation techniques
- SCAMPER**:- scampers is an idea generation technique that utilizes action verbs as stimuli.
- S- substitute, C- combine, A- Adapt, M- modify, P- put, E- Eliminate, R- Reverse.
- Brainstorming** - This process involves generating a large number of solutions for a specific problem.
- Mind mapping** - mind mapping is a graphical technique for imagining connections between various pieces of information or ideas.

**Synectics** - Synectics is a process solving technique that focuses thought process.

**Storyboarding** - Storyboarding has to do with developing a visual story to explain or explore.

**Role playing** - In the role playing technique, each participant can take on a personality or role different from his own.

**Morphological matrix** - Morphological matrix is an analytical approach to recognize new forms of a system.

**Visualization and visual process** - Visualization is about thinking of challenges visually, so as to better comprehend the issue.

Morphological analysis, forced relationships, Daydreaming, Reverse thinking, Brainstorming, Socializing, Collaboration are some other idea generation techniques.

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