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UNIVERSAL HUMAN VALUES2:

22GE301

UNIT II

Understanding Harmony in the Human Being

– Harmony in Myself!



Department : THIRD SEMESTER – CSE, AI&DS,CSE(CS))

Batch/Year : 2023-2024 / III

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COURSE OBJECTIVES

- ✿ The objective of the course is fourfold:
- ✿ Development of a holistic perspective based on self-exploration about themselves (human being), family, society and nature/existence.
- ✿ Understanding (or developing clarity) of the harmony in the human being, family, society and nature/existence
- ✿ Strengthening of self-reflection.
- ✿ Development of commitment and courage to act.



PREREQUISITES

Universal Human values¹ by SIP



SYLLABUS

COURSE CODE	COURSE INTRODUCTION - NEED, BASIC GUIDELINES, CONTENT, AND PROCESS FOR VALUE EDUCATION	L	T	P	C
22GE301	(Common to CSE,AI&DS,CSE(CS))	3	0	0	3

UNIT I Course Introduction - Need, Basic Guidelines, Content and Process for Value Education 9

- Purpose and motivation for the course, recapitulation from Universal HumanValues-I -- Self-Exploration–what is it? - Its content and process; 'Natural Acceptance' and Experiential Validation- as the process for self-exploration-- Continuous Happiness and Prosperity- A look at basic Human Aspirations--Right understanding, Relationship and Physical Facility- the basic requirements for fulfillment of aspirations of every human being with their correct priority -- Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario -- Method to fulfil the above human aspirations: understanding and living in harmony at various levels.

UNIT II Understanding Harmony in the Human Being – Harmony in Myself! 9

- Understanding human being as a co-existence of the sentient 'I' and the material 'Body' --Understanding the needs of Self ('I') and 'Body' - happiness and physical facility --Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer) --Understanding the characteristics and activities of 'I' and harmony in 'I' --'Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail - -Programs to ensure Sanyam and Health.

UNIT III Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship 9

- Understanding values in human-human relationship; meaning of Justice (nine universal values in relationships) and program for its fulfilment to ensure mutual happiness; Trust and Respect as the foundational values of relationship-- Understanding the meaning of Trust;

Difference between intention and competence.-- Understanding the meaning of Respect, Difference between respect and differentiation; the other salient values in relationship --Understanding the harmony in the society (society being an extension of family): Resolution, Prosperity, fearlessness (trust) and co-existence as comprehensive Human Goals --Visualizing a universal harmonious order in society- Undivided Society, Universal Order-from family to world family.

9

UNIT IV Understanding Harmony in the Nature and Existence - Whole existence as coexistence

- Understanding the harmony in the Nature--Interconnectedness and mutual fulfilment among the four orders of nature-recyclability and self-regulation in nature -- Understanding Existence as Co-existence of mutually interacting units in all-pervasive space- Holistic perception of harmony at all levels of existence.

UNIT V Implications of the above Holistic Understanding of Harmony on Professional Ethics 9

- Natural acceptance of human values --Definitiveness of Ethical Human Conduct --Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order-- Competence in professional ethics: a. Ability to utilize the professional competence for augmenting universal human order b. Ability to identify the scope and characteristics of people friendly and eco-friendly production systems, c. Ability to identify and develop appropriate technologies and management patterns for above production systems. -- Case studies of typical holistic technologies, management models and production systems. -- Strategy for transition from the present state to Universal Human Order: a. At the level of individual: as socially and ecologically responsible engineers, technologists and managers b. At the level of society: as mutually enriching institutions and organizations
- Sum up. Include practice Exercises and Case Studies will be taken up in Practice (tutorial) Sessions eg. To discuss the conduct as an engineer or scientist etc.

TOTAL: 45 PERIODS

COURSE OUTCOMES

On completion of this course, the students will gain knowledge and will be able to

CO 1 By the end of the course, students

would become more aware of themselves, and their surroundings (family, society, nature);

CO 2 would become more responsible in life, and in handling problems with sustainable solutions, while keeping human relationships and human nature in mind.

CO 3 would have better critical ability.

CO 4 Would become sensitive to their commitment towards what they have understood (human values, human relationship, and human society).

CO 5 would be able to apply what they have learnt to their own self in different day-to-day settings in real life, at least a beginning would be made in this direction.

CO – PO/PSO MAPPING

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1	-	-	-	-	-	2	1	1	3	1	1	1
CO 2	-	-	-	-	-	3	3	1	2	1	2	1
CO 3	-	-	-	-	-	1	1	1	1	1	1	1
CO 4	-	-	-	-	-	1	1	3	3	1	1	1
CO 5	-	-	-	-	-	2	2	3	1	2	1	3
CO 'S	-	-	-	-	-	3	3	3	3	2	2	3

ACTIVITY

- ✿ **Mental retardation is a problem with the body or the self?**
- ✿ **Feelings are in the heart. When a person gets a heart transplant, do the feelings also get transplanted?**
- ✿ **We have been using the words self and body here. we also have these words like brain and mind. How do they relate to self and body? Can you explain them and their interrelationship?**
- ✿ **So many great inventions took place during world wars, like operations research, like radar... If we become satisfied, then there will be no motivation for development. What is your comment on it?**
- ✿ **Why do we need “more than required” physical facility to feel prosperous?**
- ✿ **It is said that “desires are unlimited, resources are limited”. So how can there be prosperity?**



2.1 Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’

- Human Being =Co-existence of the Self and the Body
- The proposal is that human beings are the co-existence of the Self and the Body. Here, ‘I’ is referring to the Self, not the Body. Self is the one that recognizes the relationships, decides what to do, and feels happy or sad. When we say, “I ate delicious food”, we can see that the food was consumed by the Body and self (I) enjoyed the taste of the food.
- The needs of the self and the Body

Need	Happiness (e.g. Respect)	Physical Facility (e.g. Food)
In Time	Continuous	Temporary
In Quantity	Qualitative (is Feeling)	Quantitative (Required in Limited Quantity)
Fulfilled By	Right Understanding & Right Feeling	Physio-chemical Things
Activity	Desire, Thought, Expectation...	Eating, Walking...
In Time	Continuous	Temporary
Response	Knowing, Assuming, Recognizing, Fulfilling	Recognizing, Fulfilling
	Consciousness	Material

- The need of the Self is happiness. If someone expresses a feeling of respect for us, we feel happy about it. Respect is one of the needs of the Self. Now, if we look at the need of the Body, it is a physical facility. If we are given respect, but no food, we may tolerate it for a day or two. However, we certainly need food also. Thus, both are required. By giving food only, we can’t ensure respect. Same way, just by giving respect, food is not ensured. Thus, these are two different types of needs. Both are essential and therefore, both must be fulfilled separately for human beings.

✿ All the needs related to the Self, like the need for respect, the need for trust, the need for a relationship, and the need for happiness – all these are continuous in time. We don't want any kind of break-in, even for a moment. On the other hand, all the needs related to the body, like the need for food, and the need for shelter – all these are required for a limited time. Having them in continuity creates a problem for us. This is one way; we can differentiate between the need of the Self and the need of the Body.

✿ **2.2 Understanding the needs of Self ('I') and 'Body' - happiness and physical facility**

✿ **Needs of the body and self**

✿ Food is required continuously, or do you need it only when you feel hungry? When your stomach is full, do you still require food? It is easy to see that food is needed only when we are hungry. If we are forced to eat when the stomach is full, we find it uncomfortable, rather intolerable. Thus, food is needed from time to time and not continuously. Therefore, food is required temporarily.

✿ What about respect? Is it desired continuously or only for a certain time? It is also easy to see that we desire to be respected all the time. The need for food is temporary. If someone forces us to eat continuously, we feel uncomfortable about it. All the needs related to the Self, like the need for respect, the need for trust, the need for a relationship, and the need for happiness – all these are continuous in time. We don't want any kind of break-in, even for a moment. On the other hand, all the needs related to the Body, like the need for food, and the need for shelter – all these are required for a limited time. Having them in continuity creates a problem for us. This is one way; we can differentiate between the need of the Self and the need of the Body.

✿ Needs – Quantity and Quality:

✿ The other way to see the difference between the two; is in terms of quantity and quality. The need for food is quantitative in nature. We can identify the quantity of food needed to nurture our bodies. The same is the case with the need for clothes, shelter, etc. None of us can eat an unlimited amount of food or wear an unlimited amount of clothes. We can always identify the quantity of cloth needed to prepare a dress. Like that, any physical facility is required in a limited quantity. On the other hand, the feeling of respect, trust, etc. is not quantitative. We don't say, 'today I got half kg of respect' or 'two meters of trust'. These feelings are qualitative in nature, and they are in the form of a feeling. Whether this feeling is there or not there; a measure of quantity does not apply to it.

✿ 2.3 Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)

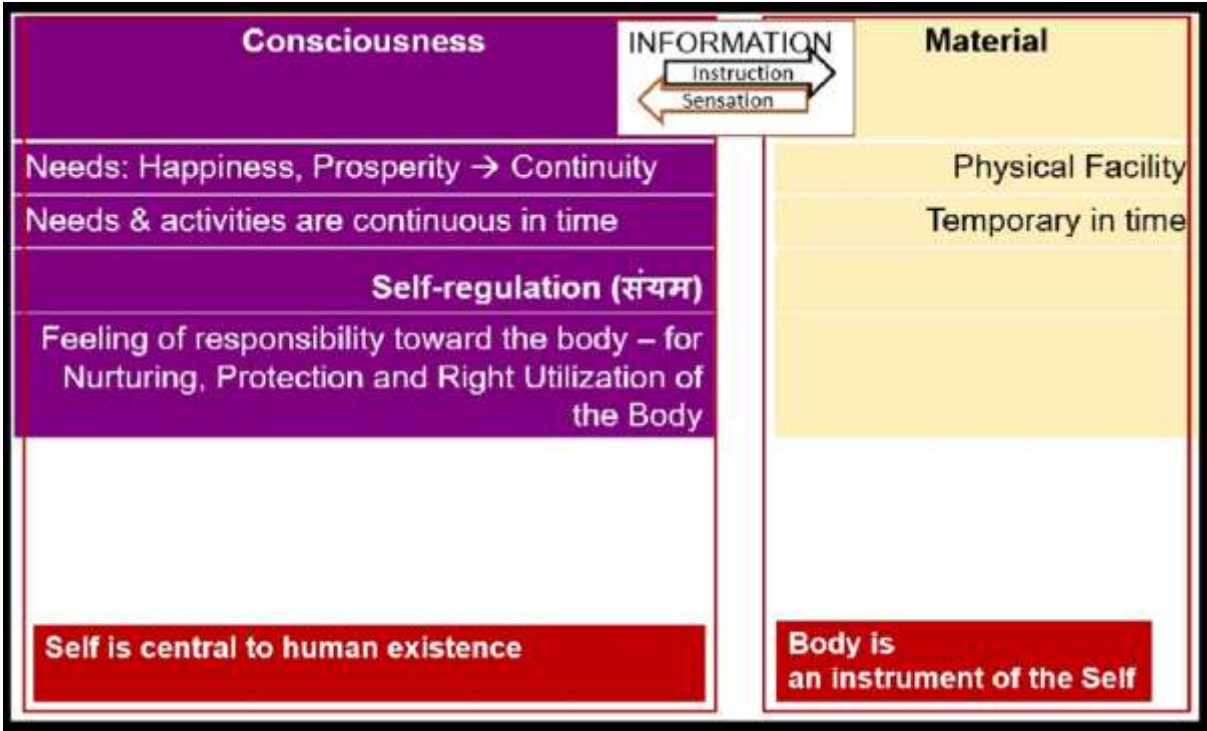
✿ I am the Seer

✿ It is the Self that sees the reality; that understands the reality. You can observe that while reading these notes at this moment, you are seeing the words with the help of your eyes. Is it the eyes that understand, and associate meaning to the words or is it you, the Self who understands? The eyes are a tool. The eyes or any of the other sense organs do not see, the body does not see. Rather, it is the Self that sees through the eyes, it is the Self that associates meaning, and it is the Self that understands. Of course, it may use the Body, and particular sensations in the Body as a help, as an instrument to see. When you observe within, you don't even need to use the senses.

✿ For example, to see your feelings, to see if you are happy or unhappy, you can see it directly. Do you need eyes or any other senses to see it? The Self can see the feelings within. In this way, you can directly see your desires, thoughts, expectations, and so on. The Self is the seer, it is the one which understands, and, in the process, the body is used, as and when required, like an instrument.

❁ I am the Doer

❁ Self is the doer. Doer means one who decides, one who takes the decision to do or not to do. For example, you are reading These class notes right now with the help of your eyes. Now, observe who has taken the decision to read the class notes – eyes or you (the Self)? Since you decide what to do and what not to do – you are the doer. To execute your decision, you use the Body as and when required. Further, there are activities of the Self where the Body is not at all involved, like desire, thought and expectation.



❁ 2.4 Understanding the characteristics and activities of ‘I’ and harmony in ‘I’

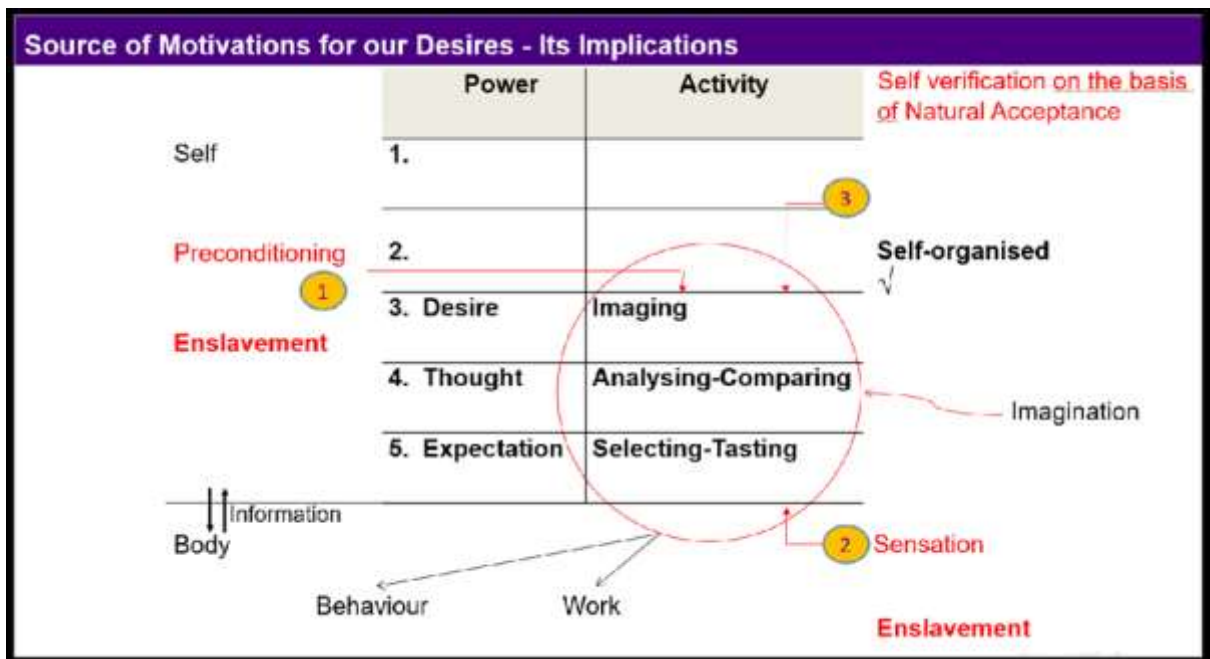
Activities of Self			
	Power	Activity	Meaning
Self	1.		
	2.		
	3. Desire	Imaging	What I want to be My feeling within
	4. Thought	Analysing-Comparing	How to go about it How to ensure fulfillment of the feeling (its details)
	5. Expectation	Selecting-Tasting	What I have to do outside for expression of the feeling

❁ **Desire is about what you want to be.** It is the name given to the activity of imaging. So, desire is the power for the activity of imaging. When we say desire, it is in the form of an image that you have created within. For example, if there is a desire for a big house, we want to become the owner of a big house. So, when we say the desire for a big house it means you want to be the owner of a big house and you have an image of this. Desire means imagining ‘what you want to be.

❁ **Thought is the power for the activity of analyzing,** trying to work out the details of ‘how to fulfill your desire’. When we have a desire to become an owner of a big house, we try to work out the details of the house. For example, with a dining room, a bedroom, a kitchen, a veranda, a bathroom, and so on and so forth – this is called analyzing. **Thought is the activity of analyzing based on comparing various possibilities to fulfill your desire.**

ASSIGNMENT

The expectation is the power for the activity of selecting based on tasting. For example, when you are desiring a big house, you have an image of it, you are analyzing that image, trying to work out the details of it, and now you are trying to fill the finer details, like the smoothness of the walls, the colors, etc. – that is the activity of selecting. The expectation is the activity of selecting which is of course based on tasting. These activities together called imagination, are governing our harmony or disharmony within and outside



(in terms of our behavior, work, and participation in the larger order, i.e., in the family, society, nature/existence).

❁ **Preconditioning: Assuming without knowing.** Depends on something or someone outside, keeps changing. Not sure if it leads to harmony or if it leads to a contradiction.

❁ **Sensation:** Happiness from the favorable sensation of Sound, Touch, Form, Taste, and Smell throughout the body.

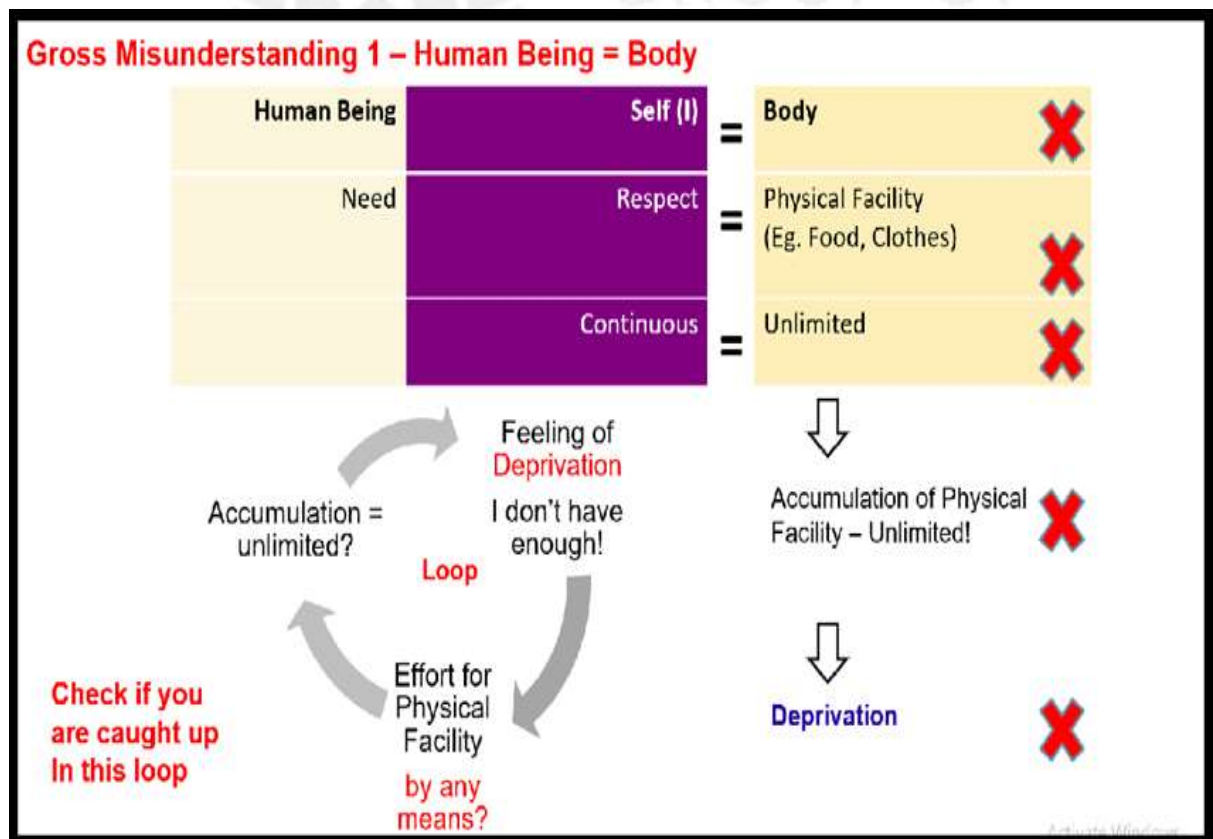
❁ Happiness from pleasure

❁ Tasty-necessary-> Tasty-unnecessary->tasteless-unnecessary-> intolerable

❁ When imagination is in line with natural acceptance, only then it is definite to be in harmony, leading to a state of happiness within. When it is motivated by preconditioning or sensation, it is not definite whether it will be in harmony or in disharmony.

❁ Since natural acceptance is for a relationship, harmony, and co-existence, when imagination (i.e., desire, thought, expectation) is guided by these three – relationship, harmony, and coexistence, there is harmony in the Self. The Self is in a state of happiness. If we can ensure that all our imaginations are guided by relationship, harmony, and co-existence, there is harmony in the Self in continuity and the Self is in a state of happiness continuously.

❁ 2.5 'Understanding the harmony of I with the Body: Sanyam and Health; correct appraisal of Physical needs, meaning of Prosperity in detail



✿ **Prosperity:** The feeling of having/producing more than the required Physical Facility.

✿ A gross misunderstanding is to assume the human being to be just the body. As far as the needs of human beings are concerned, they are in terms of happiness and physical facility. The need for happiness is continuous because it is the need of the Self. With the assumption that 'the human being is just the Body', all the efforts for fulfillment of human needs must take place through the physical facility. We are trying to fulfill the needs of the Self through the Body, through the physical facility. Of course, we are also trying to fulfill the needs of the body through physical facilities.

✿ We are trying to fulfill the continuous need for happiness, like respect, through physical facilities like clothes and food. Since the need for happiness is continuous, we end up thinking that it will come from more clothes, more food, etc. Hence, the need for clothes, food, and any other physical facility appears to be undefined or unlimited in quantity. For instance, you can observe people who are trying to get respect out of clothes. They keep on buying and wearing new clothes just to draw attention to themselves. Is it possible to get respect based on the clothes you wear?

✿ The impact of this assumption is that we keep accumulating more and more physical facilities, without knowing how much is enough; or how much will make us continue happy. We never feel prosperous. We feel deprived so we try to accumulate more; that is how we get into a loop. Check if you are also caught in this loop.

✿ The gross misunderstanding is assuming the human being to be the Body; and therefore, trying to fulfill all the needs through physical facility alone. It is that there are wide consequences at every level of human existence. On the one hand, there is the exploitation of natural resources for more and more physical facilities.

✿ 2.6 Programs to ensure Sanyam and Health.

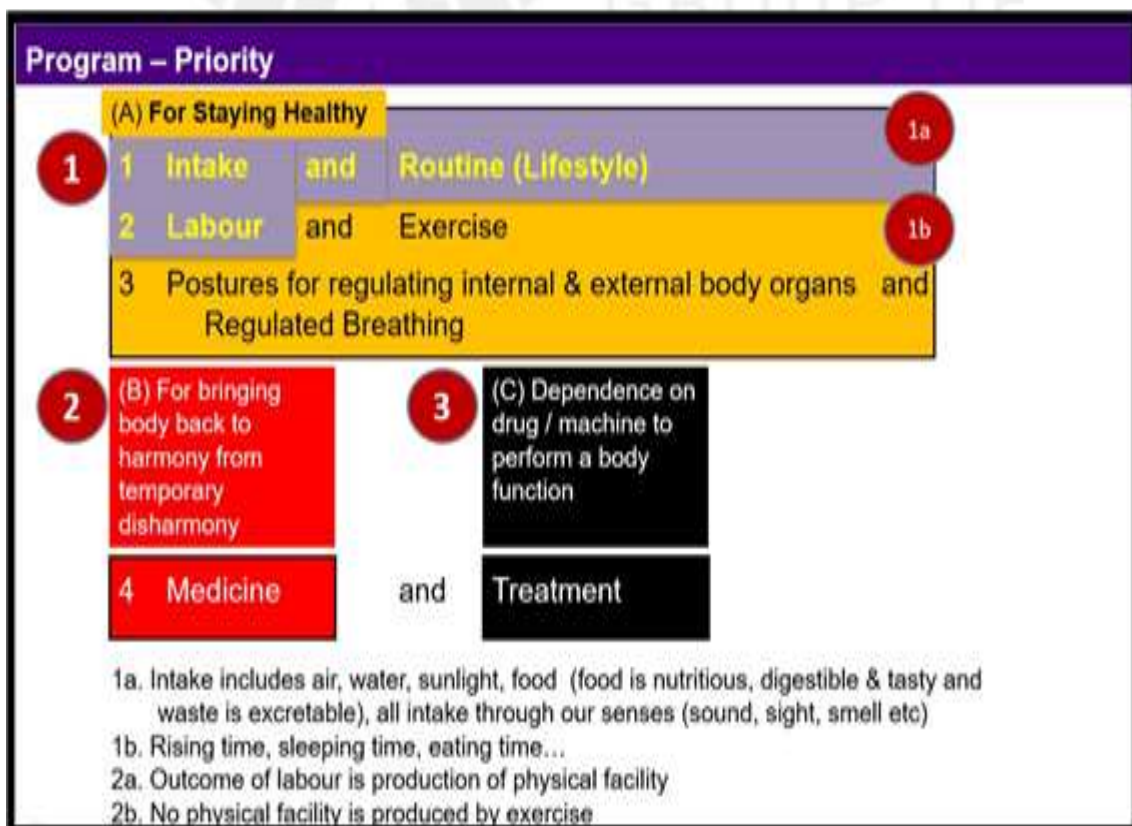
✿ 1. Program for Self-regulation and Health

✿ The feeling of self-regulation is the feeling of responsibility in the Self for nurturing, protection and right utilization of the Body.

✿ Nurturing the Body

✿ Nurturing means providing the necessary inputs to the body. The right inputs nurture the body, without disturbing its harmony.

✿ The program for nurturing and maintaining the health of the body includes the following:



- ✿ 1a. The first part is the intake, all that the Body takes in. It includes the air it breathes, the water it drinks, the sunlight it absorbs, the food is given to it and so on.
- ✿ 1b. A regular routine is required to keep the body healthy, like ensuring a proper program for sleeping, waking up, cleaning the Body, eating, doing physical work, etc.
- ✿ 2a. The Body needs adequate movement to maintain health. Labour is the work on the rest of nature. A few hours of labour a day provides sufficient body movements to keep the body in good health. It also ensures the production of physical facilities.
- ✿ 2b. If one is not able to labour, s(he) can do exercises for proper upkeep of the Body.
- ✿ 3a. There is a need for keeping the internal as well as the external organs in harmony by appropriate means like postures, movements etc.
- ✿ 3b. Breathing is a significant activity for the Body. Balancing the breathing of the body is necessary, through appropriate breathing exercises.
- ✿ For the most part, the health of the Body can be maintained by these three (1a, 1b, 2a, 2b, 3a and 3b). Despite these, if there is some problem in the health of the Body then we take medicine and ultimately, we also take treatment when all this does not work.
- ✿ 4a. The Body is self-organized and naturally in harmony. It can recover itself from many disturbances. But if due to some reasons it runs into disharmony, medicine is helpful in taking care of lifestyle disorders, non-communicable illnesses as well as communicable diseases.
- ✿ 4b. In the event the Body is not in a state to recover itself back to a state of harmony, there is a need for treatment.
- ✿ **Protecting the Body**
- ✿ Providing a conducive physical environment including clothing, shelter etc. is all a part of the protection of the body.

✿ Right Utilization of the Body

- ✿ Right utilization of the Body would mean that it is used in the process of fulfilling human aspiration, which is basically the need of the Self. If one is using the Body in the process of fulfilling the needs of the Self, it is the right utilization of the Body. It would include work with the rest of nature to produce the physical facility required for the Body.



PART A – QUESTIONS WITH ANSWERS

1. Whether the needs of the body can be fulfilled by right understanding and right feelings alone?

No, the needs of the body cannot be fulfilled by Right Understanding, Right Feelings alone. The needs of the body can be fulfilled by Physio-Chemical Things.

2. Whether the needs of the Self can be fulfilled by Physio-Chemical things?

No, the needs of the Self cannot be fulfilled only by Physio-Chemical Things

The needs of the body can be fulfilled by Right Understanding, Right Feelings alone.

3. How the needs of the Self and of the body are fulfilled?

The need of the Self is fulfilled by Right Understanding and Right Feelings while the need of the Body is fulfilled by Physio-Chemical things.

4. What is the need of the Self?

The need of the Self is continuous happiness.

5. What are the activities of the body?

The activities of the Body are recognizing and fulfilling. The body does not have the capacity to assume. Thus, the recognition and fulfilment in the body is always definite.

6. What is my program as a human being?

My program is to understand and live in harmony at all four levels of living.

Production, protection, and right utilization of physical facilities is only a part of my program.

7. Whether the need of the Self is qualitative or quantitative?

The needs of self (I) are Qualitative and continuous in time. (The nine definite feelings such as respect, trust, affection, etc., are quantitative.)

8. Whether the need of the body is qualitative or quantitative?

The needs of the body like food, clothing, shelter – physical facilities, are Quantitative and limited in time.

9. "Human Being is the coexistence of 'I' and the Body" -Briefly Justify.

The Human Being is the coexistence of Self and the Body, and there is exchange of information between the two.

The need of the Self ('I'), for happiness, is ensured by Right Understanding and Right Feelings, while the need of the Body, for physical facilities, is ensured by appropriate physio-chemical things.

What is meant by Knowing?

Knowing means right understanding, i.e., understanding the harmony at all levels of our living.

What are the five activities of the self?

The activities of Self are imaging, analyzing, comparing, selecting and tasting that are taking place in "I" (Self) continuously.

In the present scenario, how is our Imagination?

In the present scenario our desires, thoughts and expectations (imagination) are being set either based on some precondition or based on sensation.

What is imagination?

Desire, Thought and Expectation are together called imagination.

What is enslavement?

If our desires are being set either by preconditioning, or by some sensation from the body, we are enslaved, and this process is called enslavement.

What is Natural Acceptance?

Natural acceptance is the innate capacity of every human being to see the intrinsic purpose, to see what is natural, what is right and thereby conclude what is not right (wrong).

It is not the same as the likes-dislikes or assumptions and beliefs but something definite that does not change with time, place, or person. It is innate, invariant, and universal. There is a natural acceptance for a relationship, harmony, and co-existence in each one of us.

PART B – QUESTIONS

1. "Human beings are more than just the Body"- explain. (or) What is the qualitative difference between the activities of the Self and those of the Body? Illustrate with a few examples. (13)
2. Explain the activities of imaging, analysing, and selecting/tasting with a diagram. With the help of an example, show how they are related. (13)
3. "The problem today is that the desires, thoughts and expectations are largely set by pre-conditionings or sensations" - examine this statement. (13)
4. I am the seer, doer, and enjoyer - Explain. (13)
5. "I am the seer, doer, and enjoyer. My body is only an instrument"-
6. Explain. (13)
7. Can the physical facility be identified, recognized, and ensured? Justify your answer. (13)
8. Explain Prosperity. Evaluate the current situation and explain the gross misunderstanding. Gross Misunderstanding – Assuming Human Being to be only the Body. (13)



SUPPORTIVE ONLINE CERTIFICATION COURSES

NPTEL COURSES

1. [Nanoelectronics: Devices and Materials](#): 12 weeks course
2. [Nanotechnology, Science and Applications](#): 12 weeks course
3. [Quantum Information and Computing](#): 8 weeks course

Coursera

[Nanotechnology: A Maker's Course](#)

Udemy

1. [Nanotechnology: an Introduction](#)
2. [Nanotechnology: A Beginners Guide](#)

CONTENT BEYOND THE SYLLABUS

1. Ballistic Conductance in Nanostructures

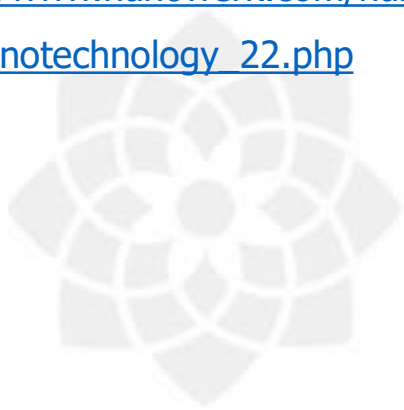
<https://courses.cit.cornell.edu/ece407/Lectures/handout28.pdf>

2. Quantum of Conductance

<https://nanohub.org/resources/632/download/2004.08.27-l03-ece453.pdf>

3. Carbon Nanotubes

https://www.nanowerk.com/nanotechnology/introduction/introduction_to_nanotechnology_22.php



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PRESCRIBED TEXTBOOKS AND REFERENCE BOOKS

TEXTBOOKS

1. G.W. Hanson, "Fundamentals of Nanoelectronics", Pearson Education, 2008.

REFERENCE BOOKS

1. N. Garcia and A. Damask, "Physics for Computer Science Students", Springer-Verlag, 2012.
2. B. Rogers, J. Adams and S. Pennathur, "Nanotechnology: Understanding Small System", CRC Press, 2014.
3. C.P. Williams, "Explorations in Quantum Computing", Springer-Verlag London, 2011.



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MINI PROJECT SUGGESTIONS

1. [Nanoparticles & Light Energy Experiment: Quantum Dots and Colors](#)
2. [Nanomaterial Case Study: Nanoscale Silver In Disinfectant Spray](#)
3. [Nanomaterial Case Study: A Comparison of Multiwalled Carbon Nanotube and Decabromodiphenyl Ether Flame-Retardant Coatings Applied to Upholstery Textiles](#)
4. [Nanomaterial Case Studies: Nanoscale Titanium Dioxide In Water Treatment And In Topical Sunscreen](#)
5. [Carbon Nanomaterials in Agriculture: A Critical Review](#)
6. [Carbon nanomaterials: Production, impact on plant development, agricultural and environmental applications](#)
7. [Production and application of carbon nanomaterials from high alkali silicate herbaceous biomass](#)
8. [Food–Materials Nexus: Next Generation Bioplastics and Advanced Materials from Agri-Food Residues](#)
9. [Conversion of Industrial Bio-Waste into Useful Nanomaterials](#)
10. [Engineered nanomaterials of relevance to human health](#)



Thank you

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