

Education

Last Minute Suggestion
[500 Most Important Key Points]

- 1. The word "Sankhya" is derived from the Sanskrit word "Sankhya" which means "right knowledge" as well as "number".
- 2. The Sankhya represents the theory and Yoga represents the practice or practical aspects.
- 3. The real Sankhya was monistic and theistic Ishvarakrsna , 5^{th} century A.D., was the representative of the classical Sankhya. The classical Sankhya under the influence of Materialism, Jainism, and early Buddhism, became atheistic.
- 4. The word 'Jain' is derived from the word 'jina' with root in 'ji' it means 'victor' i.e. the one who has successfully subdued his passions and obtained mastery over himself.
- 5.The Jainas believe in 24 Tirthankaras. Vardhaman Mahabira was the 24th Tirthankara.
- 6. Sankhya maintains a clear-cut dualism between Purusa and Prakriti and further maintains the plurality of the Purusa, and is silent on God.
- 7. Sankhya is a pluralistic spiritualism, an aesthetic realism, an uncompromising dualism. Sankhya believes in Satkaryavada.
- 8. Prakriti is the root-cause of the world of objects and Purusha is pure consciousness. Prakriti is the unity of three Gunas: Sattva, Rajas, Tamas.
- 9. Three Gunas of Prakriti: Sattva (means real or existent; it produces pleasure; colour is white), Rajas (means foulness; is the principle of motion; produces pain; colour is red), Tamas (means darkness; is the principle of inertia; it produces apathy and indifference; colour is dark).
- 10. The Yog-sutra is divided into four parts: Samadhipada, Sadhanapada, Vibhutipada, Kaivalyapada.
- 11. Patanjali Yog Sutra: Samadhipada deals with the nature and aim of concentration, Sadhanapada explains the means to realize this end, Vibhutipada deals with the supra-normal powers which can be acquired through Yoga, Kaivalyapada describes the nature of liberation and the reality of the transcendental self.
- 12. Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi.
- 13. Patanjali Yoga is also known as Raja Yoga. The cessation of the modification of Chitta is known as Yoga.
- 14. Chitta in Patanjali Yoga means the three internal organs of Sankhya buddhi or intellect, ahankara or ego, manas or mind.
- 15. Modifications of Chitta in Patanjali Yoga are of five kinds: 1. Right cognition (pramana), 2. Wrong cognition (viparyaya), 3. Verbal cognition or imagination (vikalpa), 4. Absence of cognition or sleep (nidra), 5. Memory (smriti).

- 16. Verious Schools of Vedanta: Advaita Vedanta propounded by Adisankara, Vishishtadvaita propounded by Ramanuja, Dvaita propounded by Madhva, Dvaitadvaita propounded by Nimbarka, Shuddhadvaita propounded by Vallabha, Achintya Bhedabheda propounded by Chaitanya.
- 17. Maya represents inherent reality.
- 18. Four 'Noble Truths' or 'Aryasatya' of Buddhism: 1. The truth of suffering (Dukkha), 2. The truth of the origin of suffering (Samudaya), 3. The truth of the cessation of suffering (Nirodha), 4. The truth of the path to the cessation of suffering (Nirodha).
- 19. Three Jewels or Tri-ratna in Jainism are the ways to self-realisation or liberation. They are-Right Faith (Samyak-Darshana), Right Knowledge (Samyak-Jnana), Right Conduct (Samyak-Charitra).
- 20. Orthodox System (believes in the authority of the Veda): And its Proponents. Nyaya: Goutama, Vaisheshika: Kanada, Yoga: Patanjali, Sankhya: Kapila, Purba Mimamsa: Jamini, Uttar Mimamsa: Shankara.
- 21. Unorthodox System(do not believe in the authority of the Veda): And its Proponents. Charvakism: Charvaka, Jainism: Vardhamana Mahabira, Buddhism: Goutama Buddha.
- 22. Major educational implications of Jainism: Law of karma (Cause and effect), integrated education, compassion, emphasis on non-violence.
- 23. Sri Aurobindo describes several results and different stages depicting the stages of development in integral yoga, called together the sapta chatushtaya. It consists of: Shanti (peace, calm); Shakti (power); vijnana (knowledge); Sharira (body); Karma (divine work); Brahma(the realization of Brahman); and Siddhi (realization).
- 24. The eight fold path to get 'Nirvana' from suffering: 1. Right Faith (Samyak Dristi), 2. Right Resolve (Samyak Sankalpa), 3. Right Speech (Samyak Vakya), 4. Right Action (Samyak Karmanta), 5. Right Living (Samyak Ajiva), 6. Right Thought (Samyak Smriti), 7. Right Concentration (Samyak Samadhi), 8. Right Effort (Samyak Vyayama).
- 25. Aims of Buddhist Education: to achieve Nirvana, to give up cast system, to provide education in pali language, to spread Buddhist education and philosophy.
- 26. Methods of teaching in Buddhsm: question-answer, discussion, debate, monitorial system (agra shishya pranali), conference, travelling, nature study.
- 27. Jain hierarchy of knowledge: Matijnana, Shrutijnana, Avadhijnana, Manahparyava, Kalvalya.
- 28. Educational Implications of Buddhism: simple living high thinking, no corporal punishment, cosmopolitan, democratic, emphasis on moral discipline, positivism, ethical and moral perspectives.

- 29. Swami Dayanand was founder of 'Aryasamaj' a movement for reforming Indian society on the basis of Vedas. Aryasamaj started number of schools and colleges called as Dayananda Anglo Vedic schools and colleges.
- 30. Two-Tire Education System is followed in Buddhist philosophy:
- A. Popular elementary education: curriculum: Hetu Vidya (logic), Nyaya (science and reasoning), Adyatma Vidya (philosophy), Shilpasthan (art and crafts), chikitsya vidya (medicine).
- B. Higher education: curriculum: Buddhism, Hinduism, Jainism, Theology, Philosophy, Metaphysics, Logic, Sanskrit, Pali, Astronomy, Astrology, Medicine, Law, Politics, Administration, Tantrik philosophy.
- 31. Kaivalya::Jainism; Jivan Mukti::Vedanta; Nirvana::Buddhism; Ananda:: Panchkosh.
- 32. Jainism rejects God as the creator of this world. Syadvada of Jainism considers knowledge to be multifaceted.
- 33. Swami Dayanand: 'Both the teachers and their scholars should avoid all those things that act as hindrance in the way of the acquisition of knowledge such as the company of the wicked people, contraction of bad habits (such as the use of intoxication), fornication, child marriage, want of perfect Brahmacharya...'
- 34. Maktaba is meant for primary education in Islamic Education system. Maktaba is an Arabic word which means a place where writing is taught.
- 35. Madarsa is meant for higher education in Islamic Education system. The word 'Madarsa' is derived from Arabik word 'dars' which means a lecture. Duration of education was 10-20 years.
- 36. Curriculum of Islamic Education system is divided into Religious Education and Secular Education. Religious Education: critical analysis of THE Quran, Islamic law, suffism etc. And Secular Education: languages and literatures of Arabic and Persian, Logic, History, Geography, Astronomy, Astrology, Arithmatic, Agriculture, Medicine, Economics, Ethics, Philosiphy.
- 37. Swami Dayanand: 'Blessed by the family, most fortunate the child whose parents are godly and learned.'
- 38. According to Dayananda Darshana, reward and punishment hold an important place in the child's education. No discrimination between male and female education. Medium of education was mother tongue and Sanskrit. Denied using English as medium of education in primary education and higher stage because it hampers original and creative thinking.
- 39. Jiddu Krishnamurti: 'You are the repository of all humanity. You are the world, and the world is you. And, if there is a radical transformation in the very structure of an individual's psyche, it will affect whole consciousness of man'.
- 40. Five true living Gods in Dayananda darshana: father, mother, teacher, altrusive teachers of humanity (athithes) and other great men.

- 41. Jiddu Krishnamurti or J. Krishnamurti, (12 May 1895 17 February 1986) was a writer and speaker on philosophical and spiritual issues including psychological revolution, the nature of the mind, meditation, human relationships, and bringing about positive social change. Krishnamurti attracted the interest of the mainstream religious establishment in India.
- 42. Jiddu Krishnamurti: "When you feel responsible, feel responsible for the education of your children-all children'.
- 43. The 'good society' for Jiddu Krishnamurti: In his pursuit of the 'good society', Krishnamurti emphasised the individual's relationship to society as well as his or her responsibility for establishing the 'good society: This kind of society is clearly a society in which caste, class linguistic and regional divisions would cease to exist. Krishnamurti's emphasis on 'goodness' as the foundation of this new society underlines his plea for a society devoid of any kind of contradictions or dichotomies.

44. Right Education for Krishnamurti:

Krishnamurti's schools did not exist as organisations for the indoctrination of children, but rather as places 'where students and teachers can flower, and where a future generation can be prepared because schools are meant for that. The psychological development of individuals is therefore as important as acquiring academic knowledge and skills. The right kind of education does not simply produce engineers, doctors or scientists, but a 'human being who is alive, fresh, eager. If one is a human being, one is not a specialist, but a total entity'.

- 45. For Jiddu Krishnamurti, the intentions of education must be the inner transformation and liberation of the human being and, from that, society would be transformed.
- 46. Critical pedagogy of Paulo Freire is a philosophy of education and social movement that has developed and applied concepts from critical theory and related traditions to the field of education and the study of culture.
- 47. "banking model" of education (Paulo Freire): in which students are viewed as empty accounts to be filled by teachers. The basic critique was not entirely novel, and paralleled Rousseau's conception of children as active learners, as opposed to a tabula rasa view, more akin to the banking model.
- 48. Jiddu Krishnamurti: 'You are the repository of all humanity. You are the world, and the world is you. And, if there is a radical transformation in the very structure of an individual's psyche, it will affect whole consciousness of man'.
- 49. The goal of Integral yoga according to Rishi Aurobindo is to become aware of the Divine, to integrate the physical, mental and spiritual aspects of ourselves, and to manifest the Divine at earth.
- 50. Sri Aurobindo discerns three types of being, namely the Outer being, the Inner being, and the Psychic Being.
- 51. The Outer Being according to Sri Aurobindo: It includes the physical, vital and mental levels of Being, which characterises our everyday consciousness and experience.

- 52. The Inner or Subliminal Being according to Sri Aurobindo: It includes the inner realms or aspects of the physical, vital and mental being. They have a larger, subtler, freer consciousness than that of the everyday consciousness. Its realisation is essential for any higher spiritual realisation.
- 53. The Psychic Being according to Sri Aurobindo: The Psychic Being is Sri Aurobindo's term for the Personal Evolving Soul, the principle of Divine spirit in every individual. The Psychic is the "Innermost Being", the permanent being in us that stands behind and supports the physical, vital and mental principles.
- 54. In Integral Yoga the goal is to move inward and discover the Psychic Being.
- 55. Mary Wollstonecraft was an English writer, philosopher, and advocate of women's rights.
- 56. The Praxis school was a Marxist humanist philosophical movement, whose members were influenced by Western Marxism. Mary Wollstonecraft was one of them. It was originated in Zagreb and Belgrade in the SFR Yugoslavia, during the 1960s.
- 57. Tabula rasa is the theory that individuals are born without built-in mental content and that therefore all knowledge comes from experience or perception. *Tabula rasa* is a Latin phrase often translated as "**clean slate**" in English.
- 58. Purpose of education for Jiddu Krishnamurti is to prepare people for life. That is done by making students feel free, so that they can think freely, and won't conform to society. ... If students don't think freely they will also be corrupt, violent, and oppressive.
- 59. Critical pedagogy was founded by the Brazilian philosopher and educator Paulo Freire, who promoted it through his 1968 book, *Pedagogy of the Oppressed*.
- 60. Books written by J.Krishnamurthy: Freedom From the Known, The First and Last Freedom, What Are You Doing With Your Life?, Commentaries on Living, The Awakening of Intelligence, The Book of Life, Education and the Significance of Life, Beyond Violence, Think on These Things, The Only Revolution.
- 61. Works of Paulo Freire: Pedagogy of the Oppressed, Conscientization, Politics and education, Education, the practice of freedom, Education for critical consciousness.
- 62. Works of Nel Noddings: A Feminine Approach to Ethics and Moral Education (1984), Contributions to education, Ethic of care in education.
- 63. Works of Savitribai Phule: Kavya Phule in 1854; Bavan Kashi Subodh Ratnakar in 1892 and a poem entitled "Go, Get Education".
- 64. Works of Sri Aurobindo: The Life Divine; The Mother; The Synthesis of Yoga; Integral Yoga: Sri Aurobindo's Teaching & Method of Practice; Hidden Forces of Life.
- 65. Books written by Mahatma Gandhi: The Bhagavad Gita; The Story of my Experiments with Truth An Autobiography; Truth is God; Satyagraha in South Africa.

- 66. Books written by Vivekananda published in his lifetime: Karma Yoga (1896); Raja Yoga, Vedanta Philosophy: An address before the Graduate Philosophical Society (1896); Bartaman Bharat (in Bengali) (March 1899).
- 67. List of selected books by Vivekananda that were published after his death: Bhakti Yoga; The East and the West; Para Bhakti or Supreme Devotion; Practical Vedanta.
- 68. A Vindication of the Rights of Woman is one of the earliest works of feminist philosophy. In it, Wollstonecraft argues that women ought to have an education commensurate with their position in society and then proceeds to redefine that position, claiming that women are essential to the nation because they educate its children and because they could be "companions" to their husbands rather than mere wives.
- 69. Mary: A Fiction is the only complete novel by 18th-century British feminist Mary Wollstonecraft.
- 70. Nel Noddings is an American feminist, educationalist, and philosopher best known for her work in philosophy of education, educational theory, and ethics of care.
- 71. Nel Noddings' approach to ethics of care has been described as relational ethics because it prioritizes concern for relationships. However, Noddings' believes that caring, 'rooted in receptivity, relatedness, and responsiveness' is a more basic and preferable approach to ethics.
- 72. Savitribai Phule was an Indian social reformer, educationalist, and poet from Maharashtra. She is regarded as the first female teacher of India.
- 73. Sri Aurobindo was an Indian philosopher, yogi, guru, poet, and nationalist. Integral yoga, also called supramental yoga, is the yoga-based philosophy and practice of Sri Aurobindo and The Mother (Mirra Alfassa).
- 74. According to Sri Aurobindo the world is a differentiated unity of the following: Material- a submerged consciousness concealed in its action and losing itself in the form. Vital- an emerging consciousness, a consciousness half delivered out of its original imprisonment which has become of vital craving and satisfaction or repulsion. Mental- an emerged consciousness reflecting fact of life in a mental sense, perceptive and ideative. It modifies the internal and attempts to modify conformably the external existence of the being.
- 75. The word democracy comes from two Greek words: demos = people and kratos = rule. Therefore, the word means "rule by the people," sometimes called "popular sovereigny."
- 76. Secularism, as defined in the Merriam-Webster dictionary, is the "indifference to, or rejection or exclusion of, religion and religious considerations".
- 77. India is a secular country. The term 'secular' denotes the three-fold relationship among man, state and religion. The Preamble of Indian Constitution aims to constitute India a Sovereign, Socialist, Democratic Republic and to secure to all its citizens: JUSTICE .LIBERTY EQUALITYFRATERNITY...

- 78. The terms socialist and secular were added to Indian Constitution by the 42nd amendment.
- 79. Individual Freedom of Religion- The Constitution of India recognizes the freedom to profess, practice and propagate the religion under Article 25.
- 80. The right under Article 26(a) is a group right and is available to every religious denomination. Clause (b) of Article 26 guarantees to every religious denomination the right to manage its own affairs in matters of religion. The expression 'matters of religion' includes 'religious practices, rites and ceremonies essential for the practicing of religion.'
- 81. Article 30 deals with collective freedom of religion:
 - All minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice.
 - The state shall not, in granting aid to educational institutions, discriminate against any educational institution on the ground that it is under the management of a minority, whether based on religion or language.
- 82. The object behind Article 29 & 30 is the recognition and preservation of the different types of people, with diverse languages and different beliefs, which constitute the essence of secularism in India.
- 83. The Directive Principle under Article 45 of the Constitution seeking to provide free and compulsory education for all children up to the age of 14.
- 84. Fundamental/basic/pure research is mainly concerned with generalisations and with the formulation of a theory. Main approach is gathering knowledge for knowledge's sake, usually carried on in a laboratory, or some natural phenomenon, relating to pure mathematics, to make generalizations about human behaviour, sometimes with animals.
- 85. Applied research aims at improving a product or a process, finding a solution for an immediate problem facing a society, or an industrial /business organization, to identify social, economic, political trends that may affect a particular situation. Most educational research is applied research.
- 86. Since the late 1930s the field of social psychology and education have shown great interest in action research. It focused on immediate application, not on the development of theory or generalization of applications. It focuses on local applicability, not on universal validity. Its purpose is to improve real-life problems of school practices, habits of thinking, professional spirit.
- 87. Descriptive research may be quantitative or qualitative and use research methods accordingly. It aims to describe what is, by describing, recording, analyzing, interpreting conditions that exists.
- 88. In social science and business research we often use the term Ex post facto research for descriptive research studies, for example, frequency of shopping, preferences of people. Here the researcher has no control over the variables. Survey methods of all kinds, including comparative and correlational methods are used.

- 89. Historical research describes what was by investigating, recording, analysins, interpreting past events to understand the past, present and to some extent in anticipating the future.
- 90. STEPS OF HISTORICAL RESEARCH: 1. Selection of the problem, 2. Formulation of hypotheses, 3. Collection of data, 4. Criticism of data, 5. Interpretation of data, 6. Writing research report.
- 91. TYPES OF HISTORICAL RESEARCH: Bibliographic research, legal research, studying the history os ideas, history of institutions.
- 92. PRIMARY SOURCES OF HISTORICAL RESEARCH: Personal Records- certificates, diaries, autobiographies, letters, wills deeds, contracts, original drafts of speeches, books, articles, pamphlets. Official Records: executive, judicial, legislative documents of central/state govt. Municipality, panchayet, local bodies. Reports of commission, committees, school serveys, budget, attendance record, administrative order, exam result etc. Testimony of oral tradition: Myths, folk-lore, stories, spoken account of events recoeded, interviews. Pictorial records: Photographs, videos, movies, drawing, coin, sculpture. Mechanical Record: Photographs and tape recording of meeting, interviews etc. Others: Relics, weapons, clothing, building, furniture, art objects, murals, exam question paper.
- 93. SECONDARY SOURCES OF HISTORICAL RESEARCH: Sources provided by a person who did not directly observe the event, object, or condition.
- 94. Experimental research describes what will be when certain variables are carefully controlled or deliberately manipulated. CHARACTERISTICS: Control, manipulation, observation, replication.
- 95. Independent and dependent variable: When an experiment is conducted, some variable are manipulated by the experimenter and others are measured from subjects. Which are manipulated by the experimenter are called independent variable. Which are measured from subjects are called dependent variable.

DEPENDENT VARIABLE	DEPENDENT VARIABLE
PARTICULAR RESEARCH METHOD	ACHIEVEMENT SCORE, NUMBER OF
	ERRORS.

96. Intervening variable: It links the independent and dependent variable.

Independent variable	Intervening variable	Dependent variable
Educational level	Occupation type	Income level

- 97. Extraneous variable: Variables not manipulated by examiner. Or uncontrolled variables that may have a significant influence upon the dependent variable.
- 98. ETHNOGRAPHIC STUDIES: It is sometimes known as cultural anthropology, became popular in later 19th century. It uses participant observation, conversation to study the cultural characteristics of primitive people: African, American Indian tribes. It studies cultural features such as language, marriage, family life, child-rearing practices, religious beliefs, social relations, rituals, tabues, politics ,education, recreation etc of the geographically, culturally isolated tribes or groups.

- 99. Case study is one of the important types of non-experimental or descriptive research. It is an in-depth study of one situation or cases which may be one subject, group or event. Frederick Le Play (1806-1882) had, for the first time, introduced this method into social science research. Herbert Spencer, an English sociologist(1820-1903), was the first to use case materials in his ethnographic studies. William Hwaly, a psychologist, for the first time adopted this method in his work with juvenile delinquencies. Sigmund Freud used this method in the field of psychiatry.
- 100. In case study the researcher tends to study the aspect of 'what' and 'why' of the social unit. The social unit may be an individual only, or may be a family, social group, social institution or community. It is a descriptive research, no variable are manipulated here. Data is gathred through observation, interview, questionnaire, opinionnaire, other psychological tests and other recorded data from news paper, school, society or other similar sources.
- 101. Advantage of Case Study: In-depth analysis of organised data from persons's life history, history of a group/ society, some delimited social processes. It provides sufficient basal facts for developing hypotheses regarding the social unit being studied. For that questionnaire, opinionnaire, or any psychological tests is to be developed.
- 102. Disadvantage of Case Study: It is a longitudinal study. Suffers from post hoc fallacy when the effects are wrongly attributed to factors that are simply associated. Subjective bias in data gathering. Time taking and money consuming. Often researcher comes to feel a false sense of certainty about the conclusion arrived.
- 103. Parametric statistics: Student's t test, z test, F ratio, Pearson r.
- 104. Non parametric statistics: Chi-square Test, Mann-Whitney U Test, Rank —difference Methods, Coefficient of Concordance (W), Median Test, Kruskal-Wallis H Test, Friedman Test.
- 105. When sample size is less than 30, we use t test for testing the significance of difference between two means. This concept of small sample size test was developed by William Seely Gosset in 1915. When sample size is more than 30, we use z ratio for testing the significance of difference between two means.
- 106. Rejection of the null hypothesis when in fact, it is true, constitutes a type I error or alpha error. At the 0.05 level of significance the experimenter commits a 5% type I error when he rejects a null hypothesis. The 0.01 level is one such level where commits a 1% type I error and it suggests that 99% probability exists that the obtained results are due to the experimental treatment, and hence, once in 100 replications of the experiment, the null hypotheses would be true.
- 107. Sometimes researcher accepts the null hypothesis when, in fact, it is false, constitutes a type ll error or beta error. It can be reduced by putting the alpha level at the 0.01 or 0.001. But as we reduce the chance for making type l error, we increase chance for making type ll error. It is better to limit the probability for making a type l error.

- 108. The directional null hypothesis is called a one-tailed test. When the null hypothesis is rejected by using a one-tailed test, we say that we are rejecting the null hypothesis at 1% or 5% points, not levels. When the null hypothesis is rejected by using a two-tailed test, we say that we are rejecting the null hypothesis at 5% or 1% levels, not at 5% or 1% points.
- 109. Pearson r: It is named after Prof. Karl Pearson. It is one of the most common methods of assessing the association between two variable under study. Also known as Pearson product-moment correlation and abbreviated to r. It varies from +1 through 0 to -1. A coefficient of +1 indicates perfect positive correlation and a coefficient of -1 indicates perfect negative correlation.
- 110. Features of grounded theory: Simultaneous collection and analysis of data, Creation of analytic codes and categories developed from data and not by pre-existing conceptualisations (theoretical sensitivity), Discovery of basic social processes in the data, Inductive construction of abstract categories, Theoretical sampling to refine categories, Writing analytical memos as the stage between coding and writing, The integration of categories into a theoretical framework.
- 111. Grounded Theory is 'the discovery of theory from data systematically obtained from social research' (Glaser and Strauss 1967)
- 112. Grounded Theory was developed in the School of Nursing, University of California San Francisco by sociologists Glaser and Strauss when they worked on hospital patient's Awareness of Dying . They were influenced by Symbolic Interactionism theory of Blumer (1969).
- 113. The Chi-Square test is a statistical procedure used by researchers to examine the differences between categorical variables in the same population. It is also called a "goodness of fit" statistic, because it measures how well the observed distribution of data fits with the distribution that is expected if the variables are independent.
- 114. t test is used for following purposes:
 - Testing significance between hypothetical mean of sample and population mean.
 - Testing significance between mean of 2 different samples.
 - Testing significance between mean of sample post and prior to a stimuli or operation.
 - Testing significance between hypothetical rank correlation coefficient and population rank correlation coefficient
 - Testing line of regression analysis
 - Testing significance of partial and multiple correlation coefficient.
- 115. Z-test is a statistical test where normal distribution is applied and is basically used for dealing with problems relating to large samples when $n \ge 30$. n = sample size.

For example suppose researcher wants to test if both fish & chicken are equally popular in a particular area. Then he can take a sample of size say 600 from the area out of which suppose 290 are chicken lovers. To test the hypothesis, researcher can use Z-test.

116. The Z-test is used to compare means of two distributions with known variance. One sample Z-tests are useful when a sample is being compared to a population, such as testing the hypothesis that the distribution of the test statistic follows a normal distribution. Two sample Z-tests are more appropriate for comparing the means of two samples of data.

- 117. Requirements for the Z-test:
- The mean and standard deviation of the population distribution are known
- The mean of the sample distribution is known
 - The variance of the sample is assumed to be the same as the population
 - The population is assumed to be normally distributed
- 118. In cases where the population variance is unknown, or the sample size is less than 30, the Student's t-test may be more appropriate.
- 119. Report of Secondary Education Commission is truly called as "Bible for teachers".
- 120. Secondary Education Commission opined that every training college should have under its control an 'experimental' or 'demonstration' school for research work in all aspects of Pedagogy.
- 121. Secondary Education Commission recommend for Residential type of training colleges for all students and Technical Education.
- 122. Grading System of evaluation as per Secondary Education Commission: A five point scale may be used: A (excellent), B (good), C (fair and average), D (Poor), E (very Poor). The methods should be dynamic and scientific. "Activity Method" and "Project Method" should be followed in practice.
- 123. Secondary Education Commission opined that teaching methods should be dynamic and scientific. "Activity Method" and "Project Method" should be followed in practice.
- 124. The Kothari Commission (1964-66) was set up by the Govt. of India on 14 July 1964 under the chairmanship of Daulat Singh Kothari, then chairman of the UGC.
- 125. The Kothari Commission had submitted its Report on 29 June 1966; its recommendations were accommodated in India's first National Policy on Education in 1968. "The destiny of India is now being shaped in her classrooms."
- 126.Recommendation of Kothari Commission: Academic freedom of teachers to pursue independent studies and researches. Educational qualifications and professional competence of teachers ensures quality of education and its contribution to national development, Teachers should posses an honoured place in society. Teacher education, particularly in-service education, should receive due emphasis. Education through part-time and correspondence courses should be given the same status as full-time education.
- 127. National Policy on Education (1986) Recommendations are made for the improvement of teacher's professional competency (professional Ethics),
- 128. NPE (1986) recommended pre-service and in-service teacher education, Establishment of District Institutes of Education and Training (DIET), Formation of National Council of Teacher Education (NCTE),
- 129. National curriculum framework for teacher education, 2009: National policy on Education 1986 emphasize: "The status of the teacher reflects the socio-cultural ethos of the socity, it is

said that no people can rise above the level of its teachers." In this background National Council for Teacher Education (N.C.T.E) developed N.C.F.T.E, 2009 on the basis of National Curriculum Framework 2005 and the Right of Children to Free and Compulsory Education Act, 2009 as well as the fundamental tenets enshrined in the Constitution of India.

- 130. NCFTE 2009 focused on the following concerns of teacher education: a) Professionalization of teacher education. b) Preparing teacher educators. c) Research and innovation in teacher education. d) Open and distance learning (ODL) in Teacher Education. e) Education of teachers in health and physical education. f) Education of teachers for vocational strem. g) Continuing professional development (CPD): An inservice process for practicing teachers.
- 131. In 2012, the Supreme Court set up the Justice Verma Commission.
 - 132. Verma commission's four thrust areas:
 - Quality of Pre-service Teacher Education
 - Quality of In-service Teacher Education
 - Teacher Performance and Teacher Audit
 - Strengthening of the Regulatory Functions of the NCTE.
- 133. Implementation of Verma Commission's Suggestion:

National Council for Teacher Education (NCTE) is implementing two flagship initiatives:

- "TeachR" for prospective teachers is India's first framework for accrediting and ranking TEI based on 4-pillar test of physical assets, academic assets, teaching quality (audio-video recordings of sample classes) and learning outcomes (proctored tests of students).
- "National Teacher Platform" (NTP) for teachers in schools aims to arm teachers with both curated and user-rated resources.
- 134. **Diksha Portal:** The Union Ministry of Human Resource and Development (HRD) launched Diksha Portal providing digital platform to teachers as an initiative of Justice Verma Commission.
- 135. The Yaspal Committee Report (1993) recommended for 'learning without burden.
- 136. The Radhakrishnan Commission (1948-49) viewed teaching as a profession like other profession and opined for intensive preparation for the teachers.
- 137. "ADDIE" Model stands for Analyze, Design, Develop, Implement, and Evaluate. Analysis phase deals with an analysis of training needs and a training plan: Who, What, When, Where, Why, How? Design phase deals with an overview of the course design and storyboards/prototypes. Development phase deals with: Course Content development. In implementation phase courses are live in the LMS (learning management system) and learners can start to take live classes and complete courses. The evaluation phase consists of two parts: formative and summative. An evaluation report and actionable changes for the current or future courses.

138. ASSURE: It is an Instructional Design Model

- A-Analyze Learners / S-State Standards and Objectives / S-Select Strategies, Technology, Media, and Materials / U- Utilize Technology, Media, and Materials / R- Require Learner Participation / E-E valuate and Revise.
- 139. Dick and Carey Instructional Model: also known as the Systems Approach Model. Stage 1. Instructional Goals/ Stage 2. Instructional Analysis / Stage 3. Entry Behaviors and Learner Characteristics / Stage 4. Performance Objectives / Stage 5. Criterion-Referenced Test Items / Stage 6. Instructional Strategy / Stage 7. Instructional Materials / Stage 8. Formative Evaluation / Stage 9. Summative Evaluation.

140. GAGNE'S NINE EVENTS OF INSTRUCTION

- Gaining Attention (Reception) ...
- Informing Learners of the Objective (Expectancy) ...
- Stimulating Recall of Prior Learning (Retrieval) ...
- Presenting the Stimulus (Selective Perception) ...
- Providing Learning Guidance (Semantic Encoding) ...
- Eliciting Performance (Responding) ...
- Providing Feedback (Reinforcement)
- Assessing Performance (Retrieval)
- Enhancing Retention and Transfer (Generalization)
- 141. Constructivism: The philosophy about learning, that proposes learners need to build their own understanding of new ideas, has been labeled constructivism. Jean Piaget, Eleanor Duckworth, George Hein, and Howard Gardener have explored these ideas in-depth.
- 142. The Biological Science Curriculum Study (BSCS), a team whose Principal Investigator is Roger Bybee developed an instructional model for constructivism, called the "Five Es". They are: Engage, Explore, Explain, Elaborate, and Evaluate.
- 143. A massive open online course (MOOC) is a model for delivering learning content online to any person who wants to take a course, with no limit on attendance. Main objectives are to provide online collaboration for improving access to higher education. To provide an affordable alternative to formal education. To ensure the target of Sustainable Development Goals. It offers a flexible learning schedule.
- 144. Functions of educational management: Curriculum activity management, Evaluating student's achievement, Material and institutional effectiveness, Teaching-learning process improvement, Motivating staffs and students, Maintenance of school record, financing, budgeting, Maintain healthy school climate.
- 145. POSDCORB: american political scientist Luther Gulick and the British management consultant Lyndall Urwick elaborated Henry Fayol's 14 management principles ideas in their paper named Notes on Theory of Organisation in 1937. They gave the idea POSDCORB which stands for PLANNING, ORGANISING, STAFFING, DIRECTING, CO-ORDINATING, REPORTING, BUDGETING.
- 146. Critical Path Method (CPM): A mathematically orderd network of planning and scheduling project management. First used by El Du Pontde in 1975. Steps in CPM: 1) Specify

- the individual activities, 2) Determine the sequence of those activities, 3) Draw a network diagram, 4) Time estimate, 5) Identify critical path, 6) Update CPM diagram as the project progress.
- 147. PERT Model: The Programme Evaluation and Review Technique (PERT) is a widely used method for planning and coordinating large scale projects. It was developed during the 1960s. In PERT the expected time can be calculated by the formula: $t_e = 0+4m+P$ where, $t_e = 0+4m+P$ where,
- 148. Six Sigma (6σ) is a set of techniques and tools for process improvement. It was introduced by American engineer Bill Smith while working at Motorola in 1980. Six Sigma is a disciplined, statistical-based, data-driven approach and continuous improvement methodology for eliminating defects in a product, process or service.
- 149. The Quality Council of India (QCI) was set up as a public private partnership model on the model existing in Netherlands at the time. Formed in 1997; Type: Autonomous, Governing Body. Function: Accreditation Services: Healthcare, Industries, Institutions & Professionals, Quality Promotion, Quality Assessment.
- 150. William Edwards Deming was an American engineer, statistician, professor, author, lecturer, and management consultant. Deming taught that by adopting appropriate principles of management, organizations can increase quality and simultaneously.
- 151. In the 1970s, Deming's philosophy was summarized by some of his Japanese proponents with the following "a"-versus-"b" comparison:
- (a) When people and organizations focus primarily on quality, defined by the following ratio, quality tends to increase and costs fall over time.
- (b) However, when people and organizations focus primarily on *costs*, costs tend to rise and quality declines over time.
- 152. Taylorism or Scientific Management is the name of the approach to management industrial and organisational psychology. It was initiated by Frederick Winslow Taylor in 'The Principles of Scientific Management' in 1911.
- 153. Factors influencing organisational climate: Organisational Structure, Individual's responsibility, Rewards, Risk and risk taking, Warmth and support, Tolerance and conflict.
- 154. The Human Relation Theory of Administration came into existence in 1930s as a reaction to classical approach of administration. It is also known as Humanistic theory, Socio-Economic theory, Neo-Classical theory. Elton Mayo, the American sociologist, is regarded as the Father of Human Relation Theory.
- 155. Total quality management or TQM is an integrative philosophy of management for continuously improving the quality of products and processes. The TQM concept was developed by a number of American management consultants, including W. Edwards Deming, Joeseph Juran, and A.V. Feigenbaum.
- 156. The main difference between TQM and Six Sigma (a newer concept) is the approach. At its core, Total Quality Management (TQM) is a management approach to long-term success through customer satisfaction. The focus of the process is to improve the quality of an

organization's outputs, including goods and services, through continual improvement of internal practices.

- 157. The Persons with Disabilities Act, 1995 (Equal Opportunities, Protection of Rights and Full Participation Act, 1995). This is an act to give effect to the proclamation and equality of the people with disability in the Asian & Pacific region. This PWD act 1995 was implemented in the State of Punjab in February 1996.
- 158. Disability Means: It means a person suffering from a) Blindness b) Low vision c) Leprosy cured d) Hearing impairment e) Locomotor disability f) Mental Retardation g) Mental illness. It means a person suffering from not less than 40% of any disability as certified by a Medical Authority and get certain benefits/ concessions provided by the State Govt./ U.T. Administration/ Central Ministries/ Department and Local Authorities. The concessions are such as 3% reservation in jobs, reservation in admission to educational institutions, preference in allotment of land, house sites, place of business, concession in bus, rail and airline fares, income tax exemptions for the handicapped.
- 159. The Government of India formulated the National Policy for Persons with Disabilities in February 2006 which deals with Physical, Educational & Economic Rehabilitation of persons with disabilities.
- 160.Recommendations of National Policy for Persons with Disabilities Act: the policy focuses upon rehabilitation of women and children with disabilities, Prevention of Disabilities, Barrier-free environment, Issue of Disability Certificates, Social Security, Promotion of Non-Governmental Organizations (NGOs), Collection of regular information on Persons with Disabilities, Research, Sports, Recreation and Cultural life.
- 161. The Rehabilitation Council of India (RCI) was set up as a registered society in 1986. On September, 1992 the RCI Act was enacted by Parliament and it became a Statutory Body on 22 June 1993. The Rehabilitation Council of India (RCI) is the apex government body, set up under an Act of Parliament, to regulate training programmes and courses targeted at disabled, disadvantaged, and special education requirement communities.
- 162. UN CONVENTION ON THE RIGHTS OF PERSONS WITH DISABILITIES (UNCRPD)- RIGHTS: Equality before the law without discrimination (article 5); Right to life, liberty and security of the person (articles 10 & 14); Equal recognition before the law and legal capacity (article 12); Freedom from torture (article 15); Freedom from exploitation, violence and abuse (article 16); Right to respect physical and mental integrity (article 17); Freedom of movement and nationality (article 18); Right to live in the community (article 19); Freedom of expression and opinion (article 21); Respect for privacy (article 22); Respect for home and the family (article 23); Right to education (article24); Right to health (article 25); Right to work (article 27); Right to adequate standard of living (article 28); Right to participate in political and public life (article 29); Right to participation in cultural life (article 30).
- 163. Rashtriya Madhyamik Shiksha Abhiyan (RMSA) is a centrally sponsored scheme of the Ministry of Human Resource Development, Government of India, for the development of secondary education in public schools throughout India. It was launched in March 2009.

- 164. Aims of RMSA: Its main aim to ensure Quality improvement, Information communication technologies (ICT), Access and equity, ntegrated education for disabled children (IEDC). The Ministry of Human Resource Development directly provides funds to the state governments. During the XI Five Year Plan the central government provided 75% of the total fund for each state, while 25% was borne by the state as matching share.
- 165. SCERT: Nodal agency for teacher-education institutes. The National Council of Educational Research and Training (NCERT) maintains a network of field offices to keep a close liaison with State Government. At present, these offices have been established in different States and Union territories. State Council of Educational Research and Training (SCERT) is one of these offices. It came into existence on 5th January 1979 as a result of transformation and upgradation of the former State Institute of Education (SIE).

166. Functions of SCERT:

- To organize and implement the special educational projects sponsored by UNICEF, NCERT and other agencies for qualitative improvement of school education and teacher educators.
- To prescribed curricula and textbooks for the school and teacher training institutions.
- To produce instructional materials for the use of teacher- educators.
- To arrange in-service training for different categories of teachers at the state level.
- To organize programmes including Correspondence-cum- Contact Courses for professional development of teachers, teacher-educators and inspecting officers.
- To supervise the working of the Teacher-Training Colleges, Secondary Training Schools and Elementary Training Schools etc.
- 167. National Council for Teacher Education (NCTE) is a statutory body of Indian government which was formed in 1995 (existed since 1993). It acts as a government advisory body (and not as a separate institution) to look after development and progress of "teacher education". Affiliations: Department of Higher Education, MMHRD.
- 168. The University Grants Commission of India is a statutory body set up by the Indian Union government in accordance to the UGC Act 1956 underMHRD, and is charged with coordination, determination and maintenance of standards of higher education. It provides recognition to universities in India, and disbursements of funds to such recognised universities and colleges. Its headquarters is in New Delhi, and has six regional centres in Pune, Bhopal, Kolkata, Hyderabad, Guwahati and Bangalore.
- 169. Motto of UGC: Gyan-Vigyan Vimuktaye (Knowledge Liberates), Formation: 28 December 1953, Headquarter: New Delhi, Chairman: D.P. Singh, Affiliations: Department of Higher Education, Ministry of Human Resource Development, NCERT.
- 170. Malcolm Shepherd Knowles (1913 1997) was an American educator well known for the use of the term Andragogy as synonymous to the adult education. According Malcolm Knowles, andragogy is the art and science of adult learning.
- 171. The term andragogy can be supposedly equivalent to the term pedagogy. Andragogy in Greek means the man-leading in comparison to pedagogy, which in Greek means child-leading. However, it should be noticed that the term pedagogy is used since the Ancient Greek times while Alexander Kapp, a German educator, originally used the term andragogy in 1833.

172. Four Principles of Andragogy (1984):

- Since adults are self-directed, they should have a say in the content and process of their learning.
- Because adults have so much experience to draw from, their learning should focus on adding to what they have already learned in the past.
- Since adults are looking for practical learning, content should focus on issues related to their work or personal life.
- Additionally, learning should be centered on solving problems instead of memorizing content.

173. CIPP evaluation model is a Program evaluation model which was developed by Daniel Stufflebeam and colleagues in the 1960s. CIPP is an evaluation model that requires the evaluation of context, input, process and product in judging a programme's value. CIPP is a decision-focused approach to evaluation and emphasises the systematic provision of information for programme management and operation.

174. CIPP Evaluation: Context Evaluation: Planning decision about the design of curriculum. Input Evaluation: Decision for providing infrastructure of various resources. Process Evaluation: Decision regarding the curriculum implementation. Product Evaluation: Decision for recycling of process used for generating product.

175. Projective Tests Example: The Rorschach Inkblot Test, Thematic Apperception Test (TAT), Rosenzweig's Picture Frustration Study (P-F Study).

176: The Rorschach Inkblot Test: It was developed by Hermann Rorschach, a swiss psychologist in 1921. It contains 10 inkblots, five in blackink on a white background and five in coloured inks on a white background.

177. Thematic Apperception Test (TAT): First developed in 1935 by psychologist Henry Murray and his colleague Morgan. It consists of 30 black and white picture cards and one black card.

178. Rosenzweig's Picture Frustration Study (P-F Study): It was developed by Rosenzweig to assess how people express aggression in the frustrating situation. The test presents a series of situation, in cartoon like pictures, in which one person frustrated others. The subject is asked to give answer in place of other person (frustrated).

179. The Tyler model of Curriculum Evaluation is comprised of four major parts. These are: 1) defining objectives of the learning experience; 2) identifying learning activities for meeting the defined objectives; 3) organizing the learning activities for attaining the defined objectives; and 4) evaluating and assessing the learning experiences.

180: Tyler's Curriculum Evaluation Model is also known as Goal Attainment Model or Objectives-Centered Model . Tyler's Model (1949) Key Emphasis: Instructional Objective, Purpose: To measure students progress towards objectives, Method: 1. Specify Instructional Objectives, 2. Collect performance Data, 3. Compare performance data with the objectives/standards specified.

181: Tyler's model of Curriculum Evaluation obtains the curriculum objectives from three sources: 1) the student, 2) the society, and 3) the subject matter.

182: Limitation of Tyler's Curriculum Evaluation Model: 1. Ignores process 2. Not useful for diagnosis of reasons why a curriculum has failed.

183: Stufflebeam's CIPP Model (1971) or Context Input Process and Product Model of evaluation concentrates on: Context of the programme, Input into the programme, Process within the programme, Product of the programme.

184: Theory: Explains a process (Why?), Model: Describes a process (How?). Model is a representation of reality presented with a degree of structure and order.

185: Limitations of CIIP Model: 1. Over values efficiency, 2. But under values students aims.

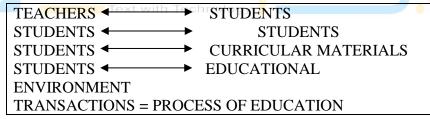
186: STUFFLEBEAM'S CIPP Model(1971): Key Emphasis: Decision-making; Purpose: To facilitate rational and continuing decision-making; Strengths: a) Sensitive to feedback b) Rational decision making among alternatives.

187: Stake's Model of Curriculum Evaluation (1969) consists of three sets of data : Antecedents, Transactions, Outcomes.

188: Stake's Model of Curriculum Evaluation (1969):

ANTECEDENTS: Conditions Existing prior to Curriculum Evaluation are Students interests or prior learning, Learning Environment in the Institution, Traditions and Values of the Institution.

TRANSACTIONS: Interactions that occur between:



OUTCOMES: Learning outcomes. It deals with the impact of curriculum implementation on : Students, Teachers, Administrators, Community. Outcome also implies Immediate outcomes Vs Long range outcomes.

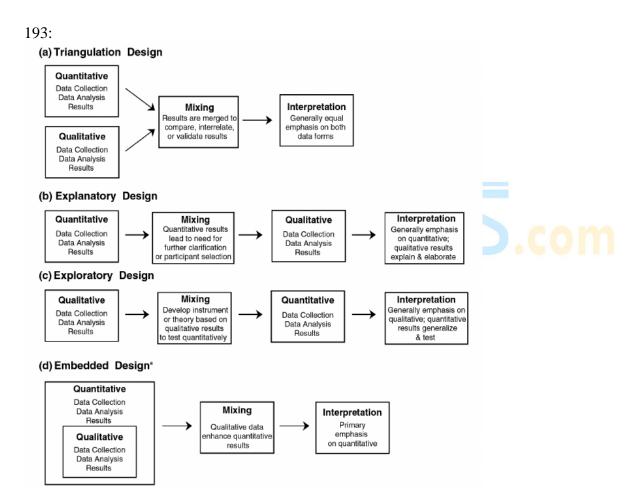
189: Purpose of Stake's Model of Curriculum Evaluation (1969): To report the ways different people see curriculum. Focus is on Responsive Evaluation on the following aspects: 1. Responds to audience needs for information 2. Orients more toward program activities than results 3. Presents all audience view points (multi perspective).

190: Limitations of Stake's Model of Curriculum Evaluation (1969): 1.Stirs up value Conflicts 2.Ignores causes.

191: 'ASSESSING TRAINING EFFECTIVENESS' often entails using the four-level model developed by Donald Kirkpatrick (1994). Level 1 – Reaction, Level 2 – Learning, Level 3 Evaluation, Level 4 Evaluation.

	Qualitative Research	Quantitative Research
Focus	Quality (features)	Quantity (how much, numbers)
Philosophy	Phenomenology	Positivism
Method	Ethnography/Observation	Experiments/Correlation
Goal	Understand, meaning	Prediction, test hypothesis

192:



194: Reflective thinking is a part of critical thinking process referring specifically to the process of analysing and making judgements about what has happend. John Dewey (1993) suggests that reflective thinking is an active, persistent and careful consideration of a belief or supposed form of knowledge, of the grounds support knowledge and further conclusions to which that knowledge leads.

195: Types of non-probability sampling / purposive sampling: Quota sampling, convenient/incidental sampling, snowball sampling.

196: The National Assessment And Accreditation Council (NAAC) is an organisation that assesses and accredits higher education Institutions (HEIs) in India. It is an autonomous body funded by UGC of Govt. of India. Its headquarter is in Bengalore.

NAAC was established in 1994 in response to recommendations of National Policy in Education (1986). This policy was to "address the issues of deterioration in quality of education". The Programme of Action (POA-1992) laid out strategic plans for the policies.

197: The International Network for Quality Assurance Agencies in Higher Education (INQAAHE) was established in 1991 with only 8 members. The main purpose of the Network is to collect and disseminate information on the current and developing theory and practice in the assessment, improvement and maintenance of quality in higher education.

198: Digital divide is a term that refers to the gap between demographics and regions that have access to modern information and communications technology, and those that don't or have restricted access. This technology can include the telephone, television, personal computers and the Internet.

199: A reflective journal is a way of thinking in a critical and analytical way about one's own work in progress. It shows how different aspects of his/ her work interconnect. The journal could include: Research notes , personal comments on one's own work, notes/images from gallery visits, quotes, extracts from lectures, tutorials, books, journals, photos/sketches etc.

200: Metacognition is "cognition about cognition", "thinking about thinking", "knowing about knowing", becoming "aware of one's awareness" and higher-order thinking skills. The term comes from the root word meta, meaning "beyond", or "on top of". There are generally two components of metacognition: knowledge about cognition and regulation of cognition.

201. **Information Technology** refers to the process of generating information with the use of machines and technologies. It includes gathering, organizing, storing, publishing, and using the information in the form of sound, picture, graphic text, number through the use of computer. It deals with the use of electronic computers and computer softwares to convert, store, protect, process, transmit and securely retrieve an information. According to Information Technology Association of America (ITAA), " It is defined as the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware".

202. Communication Technology refers to the process of communicating information with the help of different equipments, programs and hardware and software systems. It involves computer capabilities that facilitates exchange of information between individuals. According to Oxford Dictionary, "The technology associated with data communication refers to communication technology".

203. Jean Piaget's stages of Cognitive Development of a child:

- A) Sensory Motor Stage: (0- 2 years)
- B) Pre-operational Stage: (2- 7 years)
- C) Concrete Operational Stage: (7- 11 years)
- D) Formal Operational Stage: (11- 16 years).

204. Information and Communication Technology (ICT) are those technologies which enables us to create, collect, consolidate, communicate, manage and process information in multimedia

and various digital formats by using telecommunication techniques. It consists of hardware, software, network media, computers, internet, broadcasting technologies etc. According to UNESCO, it is defined as "The scientific, technological and engineering disciplines and the management techniques used to handle transmit information with men and machines".

205. David Ausubel, psychologist, gave the 'meaningfui learning theory', influenced by the work of Jean Piaget. His theory was concerned with how students learn large amount of meaningful material from verbal/textual presentation. In this theory learning is based on the representation, subordinate and combinational process that occur during the learning process. Ausubel proposed the following four processes: A) Derivative Subsumption, B) Correlative Subsumption, C) Super-ordinate Learning, D) Combinational Learning.

206. Instructional Technology in Education (Channels and Medium):

Attendance sheets

Handouts and presentations

Media/ Technology (videos, podcasts, computer, software tools)

Graphic organizers

Posters

Charts/ Flip chart

Instructional guides

Checklists and case studies

Ouizzes

Pictures, graphs, bulletin boards, diagrams

Models, slides.

207. Jerome Bruner, cognitive psychologist, believes that classroom learning should take place indicatively (specific to generalization). The modes of representations of Bruner's theory are: A) Enactive Stage (birth – 3 years), B) Iconic Stage (3 – 8 years), C) Symbolic Stage (from 8 years).

208. Computer Mediated Communication (CMC): It is defined as any means in which individuals can talk to each other. It can be of two types:

Synchronous: It is a mode of online delivery where exchange takes place in 'real time'. It requires a timetable to be organized. It includes telephone, video conferencing, web conferencing, audio conferencing, internet chat.

Asynchronous: In this mode, messages are posted up at any time and read and responded to, by others at a time which suits them. It includes audio cassette, e-mail, message board forums, print materials, voice mail/fax, video cassette, broadcast video, radio, CD-ROM.

209. Virtual Learning Environment (VLE): It is a set of teaching and learning tools designed to enhance a student's learning experience with the use of computer and internet. It includes curricular mapping, student tracking, online support for both teacher and student, electronic communication and internet links. The uses of VLE are assigned a teacher ID or a student ID.

210. THE MODES OF REPRESENTATIONS OF BRUNER'S THEORY:

210, THE MODES OF REFIREDENTIALISMS OF ERRORERS THEORET.			
STAGE	TIME SPAN	KNOWN AS	EXAMPLE
Enactive Stage	birth – 3 years	also known as concrete	Example, usage of coin or
		stage	paper for maths education.

Iconic Stage	3 – 8 years	also known as 'pictorial stage' or 'photographic stage'	Example, use of shapes, diagrams and graphs. It involves images or other visuals to retain memory.
Symbolic Stage	from 8 years	abstract symbols. It takes the images from the second	Example, variables (x and y), mathematical symbols (+, -, /) or words (addition, infinite, subtraction) and use of language and words.

- 211. The Lev Vygotsky, a psychologist, proposed the 'Socio-cultural theory', under 'Constructive Learning Theory'.
- 212. According to Lev Vygotsky, the zone of proximity development contains two features: A) Scaffolding, B) Reciprocal Teaching.
- 213. 'Learning theories' are described as a collection of learning theory and models and 'instructional design', is a collection of instructional strategies that are designed with the help of learning theories.
- 214. In education terminology, Rubric means a scoring guide, used to evaluate the quality of student's constructed responses. Usually, rubrics contain evaluative criteria, quality definition for those criteria at particular levels of achievement and a scoring strategy. The main purpose of rubrics is to assess performance.

215. Rubrics for scoring constructed responses have two general categories:

ANALYTIC	It requires that the teacher identifies the important
SCORING RUBRIC	aspect of a good solution and then assign points to
	each aspect.
HOLISTIC SCORING	It requires that the teachers must determine the
RUBRIC	overall quality of the constructed responses.

- 216. Plato: "He who has a taste for every sort of knowledge and who is curious to learn and is never satisfied may be termed philosopher".
- 217. The principle of inclusive education was adopted at the "World Conference on Special Needs Education: Access and Quality" (Salamanca Statement, Spain 1994) and was restated at the World Education Forum (Dakar, Senegal 2000). The Statement solicits governments to give the highest priority to making education systems inclusive and adopt the principle of inclusive education as a matter of policy.
- 218. In India, National Council of Educational Research and Training (NCERT) joined hands with UNICEF and launched Project Integrated Education for Disabled Children (PIED) in the year 1987, to strengthen the integration of learners with disabilities into regular schools.

219. FEATURES OF PHILOSOPHY:

- A) Philosophy is a set of views or beliefs about life and the universe, which are often held uncritically.
- B) Philosophy is a process of reflecting on and criticizing our most deeply held conceptions and beliefs.
- C) Philosophy is a rational attempt to look at the world as a whole.
- D) Philosophy is the logical analysis of language and the clarification of the meaning of words and concepts.
- E) Philosophy is a group of perennial problems that interest people and for which philosophers always have sought answers.

220. DEPENDENCE OF PHILOSOPHY ON EDUCATION:

Education is the dynamic side of philosophy. In the words of Adams: "Education is the dynamic side of philosophy. It is the active aspect of philosophical belief, the practical means of realizing the ideals of life". Philosophy is the theory of education while education is practical thereof. Education is the best means for the propagation of philosophy. Education cannot even be imagined without philosophical principles likewise philosophical principles are lifeless without the help of education. Example- the introduction of the 10+2+3 system of education and craft education are the consequence of philosophical views.

- 221. TACTILE LEARNER: Tactile learners learn best by touching or handling objects. By fourth grade, tactile learners appreciate learning activities that use fine motor skills including writing. Manipulatives are particularly important for tactile learners. They also benefit from participating in hands-on activities, role playing, and creating displays. Tactile learners remember what they did and how they did it; they do not necessarily remember what they saw others do or what they heard.
- 222. KINESTHETIC LEARNER: Kinesthetic learners achieve best by taking an active part in classroom instructions. Motion is an important part of kinesthetic learning including motion that is not specific to the learning process. Simply allowing students to move about the classroom can be particularly helpful to kinesthetic learners. For example, walking to the board to work a problem involves the motions required to walk and write.

223. Neil Fleming's VARK model of Student Learning:

VARK is an acronym that refers to the four types of learning styles: Visual, Auditory, Reading/Writing (For some older students reading & writing is a preferred way of learning Preference) and Kinesthetic. The VARK model is also referred to as the VAK model, eliminating Reading/Writing as a category of preferential learning.

224. UNESCO: "Inclusive means that as teachers, we have the responsibility to seek out all available support (from school authorities, the community, families, children, educational institutions, health services, community leaders, and so on) for finding and teaching ALL children."

225. PRINCIPLES OF INCLUSIVE TEACHING LEARNING PROCESS:

- A) **Respecting** learners with different abilities and value, diverse talents, different ways of learning and their socio background and personal histories
- B) **Recognizing** and responding to the specific need or additional challenges of learning and makes necessary provision.

- C) Creating learning friendly environment which facilitates learning for ALL children including children with disabilities.
- D) Using of flexible and multiple learning approach based on the child's learning pace and style.
- E) Use of universal design principles to create accessible classes. .
- F) **Use of technology** for meeting the specific needs of children with disabilities e.g ICT, aids and appliances and communication technology.
- G) **Reducing barriers** within learning environments -
- H) **High expectations** for all learners including children with disabilities.

226. DIFFERENCE BETWEEN TEACHING AND FACILITATING:

Teaching	Facilitating
Starting with preset curriculum	Means considering issues identified by group and
	new ideas.
	means starting by assessing the group
Providing information in one direction	Making sure information flows in both the
	direction.
A process whereby a teacher leads a	Initiates active learning, means using practical,
group of	participatory methods
students in acquiring new skills,	
knowledge,	
or understanding.	
Most subject area teaching involves	Involves helping the students to discover by
telling	themselves
and teaching the students. Measurable	DIOOC
outcome at the end.	
Means the right answer	Encouraging and valuing different views
Involves telling other people instead of	Means asking instead of answering questions
letting people figure out from	Yourself
themselves	
Class room as one group	Learner as a unique entity

- 227. "Teachers teach what they know, they educate what they are." This proverb suggests that more than any other profession, education and teaching require the whole being of the teacher to be engaged with the life and learning of their learners.
- 228. Reflection is a s process includes reviewing, reconstructing, re-enacting, and critically analyzing one's own teaching abilities and then grouping these reflected explanations into evidence of changes that need to be made to become a better teacher

229. Attributes of Reflective Teacher:

- A) Discover and develop open-mindedness, the attitude of a self- motivated learner, having self-knowledge and self-restraint.
- B) Develop the capacity for sensitivity, effective communication skills and ways to establish harmony in their teaching environment .
- C) Facilitate personal growth and social skills in their own learners.
- 230. According to broader goals of NCF (2005), and NCFTE (2009), Arts Education will sensitize student teachers towards:

- A) Multiple ways of seeing: nurture multiple intelligences in the classroom, and acknowledging cultural, social, linguistic, and learning diversities in the classroom.
- B) Connecting education to life: validate the real experiences and emotions of teachers and learners, create self knowledge, and "localise" education.
- C) Creating experiences that will yield classroom application: using the arts to enable effective content communication and open up the possibilities of creative and critical thinking among learners.

231. CHARACTERISTICS OF EFFECTIVE TEACHER COLLABORATION:

- A) It is voluntary.
- B) It requires parity among participants
- C) It depends on shared responsibility for key decision making.
- D) It requires accountability for student outcomes.
- E) It relies on sharing of resources (time, expertise, space, equipment).
- F) Although inclusive schools tend to be beneficial for all those involved, it is critical to iron out any existing systemic barriers for inclusion of children.

232. QUALITIES FOR INCLUSIVE TEACHER:-

- A) Sensitivity towards learners with diverse abilities/ disabilities and avoid labelling.
- B) Inclusive Classroom management
- C) Understanding the significance of Collaboration
- D) Skills for Inclusive Assessment and evaluation
- E) Knowledge of Assistive Technology and Assistive devices
- F) Awareness regarding stereotypes and myths about disabilities.

233. CHARACTERISTICS OF INCLUSIVE TEACHER:

- A) Recognizes children's learning abilities
- B) Applies child Centered Approach
- C) Develops Inclusive Learning process
- D) Valuing Diversity as a Resource
- E) Acknowledges that all children have the ability to learn
- F) Provides Flexibility for learning in their pace.

234. Three Attributes of Reflective Teacher are:

- A) Discover and develop open-mindedness, the attitude of a self- motivated learner, having self-knowledge and self-restraint.
- B) Develop the capacity for sensitivity, effective communication skills and ways to establish harmony in their teaching environment
- C) Facilitate personal growth and social skills in their own learners .
- 235. Inclusion of children with disabilities can only become a reality when general and special educators collaborate to provide 'transfer of skills' to ensure effective learning (academic and social) for *all* children with disabilities.

236.

INCLUSIVE, LEARNING-FRIENDLY CLASSROOM		
Relationships	Friendly and warm. The teacher sits next to and smiles at the child with a hearing impairment. The parent-helper praises this child and assists other children.	

Who is in the classroom?	The teacher, students with a wide range of backgrounds and abilities, and others such the parent-helper
Seating arrangement	Different seating arrangements, such as girls and boys sitting together on the floor in two circles or sitting together at tables
Learning materials	Variety of materials for all subjects such as math materials made from newspapers, or posters and puppets for language class
Resources	The teacher plans a day in advance for the class. She involves the children in bringing learning aids to the class, and these aids do not cost anything.
Evaluation	Assessment; Observations; Samples of children's work over time such as portfolios

237. Three basic steps a teacher needs to keep in mind when endeavouring to create an inclusive learning environment.

Firstly identifying and understanding the child's needs in terms of sensory, physical and intellectual diversities.

Second Identify barriers—physical and curricular—to learning attitudinal barriers at home and school. **Thirdly** address and remove the barriers to meet the child's needs.

238. IMPORTANT METHODS OF TEACHING IN DIFFERENT SCHOOLS OF PHILOSOPHY:

- 'Learning by doing' in naturalism, 'lecture method' in idealism and 'experimental method' in pragmatism.
- 239. Idealism advocates street discipline and self control where as naturalism emphasis freedom and natural discipline, and pragmatism stressed social discipline.
- 240. Students get secondary importance in idealism whereas they get primary importance in naturalism. Similarly there is a close relationship between the teacher and students in pragmatism and idealism whereas it is limited in naturalism.

Naturalism gives emphasis to science subjects and idealism gives importance to religious subjects.

241. System Analysis: It is a problem solving process in which the problem solver engages in a series of steps – taking at solving a particular identified educational problem. System approach comprises of two major parts, namely: 1) System analysis, and 2) System synthesis. Technically speaking, system analysis consists of Mission analysis, functional analysis, task analysis and consideration for methods and means.

242.

POINTS	MANAGEMENT	ADMINISTRATION
Meaning	Management is an art of getting things done	It is concerned with
	through others by directing their efforts	formulation of broad
		objectives, plans and policies.

	towards achievement of pre-determined goals.	
Nature	It is an executive function.	It is a decision making function.
Process	Management decides who should be as it is and how should he do it.	It decides what is to be done and by whom it is to be done.
Function	Management is a doing function. Managers get work done under their supervision.	It is a thinking function. Plans and policies are determined under it.
Skills	Technical and human skills.	Conceptual and human skills.
Levels	Middle and lower level function.	Top level function on the basis of Usage.

- 243. Philosophy is rational enquire to the reality of world which aims to find out Truth for the sake of attaining wisdom.
- 244. Philosophy has 3 branches Metaphysics, Epistemology & Axiology.
- 245. Frederick Winslow Taylor, one of the earliest theorists, started the Scientific Management movement. In 1909, Taylor published "The Principles of Scientific Management".
- 246. Metaphysics deals with reality, Epistemology deals with Knowledge & Axiology study about Value.

Metaphysical questions are divided in 4 subsets known as: Cosmological, Theological, anthropological & ontological aspects.

- 247. A general definition of e-learning shows, the "learning" made by means of WEB technologies, or through an pre-installed software in a computer with multimedia capacity, either in a asynchronic way (separated student and source on time: auto-formation), or in a synchronic way (connected student and source in real time, a "virtual class"). Traditionally distance education has been asynchronic (teacher and students learning in different places and in different times). The newness introduced to ICT is the development of synchronic formation.
- 248. GROWTH OF VISVABHARATI: In 1863, Rabindranath's Tagore's father founded the Ashram at

Bolpur. It was called Shantiniketan (Abode of Peace). It was meant for the seekers of truth. In 1901, Tagore started the experimental school. In 1921, it became the Visvabharati.

249. The word Visvabharati consists of two Sanskrit words. 'Visva' means world and 'Bhararti' means cultures. Thus Visvabharati would mean world culture. The motto of this university is 'Yarta Visvam bhavari ekamidam' i.e. where the world meets at one place.

250. EDUCATIONAL INSTITUTES STARTED BY TAGORE

Following institutions were started by Tagore to carry out his experiments in education:

- 1. Sisu Bhawan (Nursery School)
- 2. Path Bhawan (School Section-Matriculation Examination)
- 3. Siksha Bhawan (Higher Secondary)
- 4. Vidya Bhawan (College of Undergraduate and Post-Graduate Studies and Research)
- 5. Vinya Bhawan (Teachers' Training College)
- 6. Kala Bhawan (College of Fine Arts and Crafts)
- 7. Sangit Bhawan (College of Dance)
- 8. Sriniketan (Department of Rural Reconstruction)
- 9. Siksha Satra (Rural High School)
- 10. Silpa Sadan (College of Industrial Training)
- 11. Cheena Bhawan (School of Languages, e.g. Chinese, Tibetan etc.).
- 251. Ram Rajya as the Concept of a Society: Gandhiji wanted to establish Ram Rajya which he identified with justice, peace, happiness and welfare of all. What he sought was a spiritual society set on the foundation of freedom, justice, equality, love, peace and non-violence.
- 252. Gandhiji suggested that **Ahimsa** (non-violence) and truth can lead the ultimate destination of life. Satya and ahimsa are the two sides of the same coin. They are intertwined and it is practically impossible to separate them." 'Satyagraha' implies holding of truth, thorough love and purity.
- 253. Gandhiji's view on Concept of Education: Gandhiji summed up his ideas on education in these words, "By education I mean an all-round drawing out of the best in child and manbody, mind and spirit." "All round' implies the harmonious development of the individual.

254.PRINCIPAL FEATURES OF GANDHIJI'S PHILOSOPHY OF LIFE:

Truth and Ahimsa (non-violence) Self-discipline and Self-purification Ram Rajya Learning by Earning Craft Centred Education Self-sufficient Education Medium of Instruction: Mother-tongue self-control Women Education

255. GANDHIJI'S TEACHING SYSTEM:

There is an obvious similarity of his ideas of basic education and the thoughts of John Dewey. Gandhiji s teaching system is full of the following characteristics:

- A) Compulsory universal free education for the boys and girls of the 7-14 yrs age group.
- B) Mother tongue will be the medium of education. On this level English learning will be totally rejected and Hindi should be learned as a national language.
- C) Learning will be arranged centering on a handicraft in accordance with the learner s ability.
- D) Basic education is totally activity oriented.
- E) Individual and group effort is developed through this practice.
- F) An important feature of basic education is learning with earning.

256. CURRICULUM OF BASIC EDUCATION OF GANDHIJI:

Wardha education conference in 1937 suggested the basic education for children between 7-14 years of age and curriculum has also been suggested accordingly. A large emphasis was given on general science for boys and on home science for girls. The following are the major subjects suggested in conference –

- 1) Basic craft
- (i) Spinning and weaving
- (ii) Carpentry
- (iii) Agriculture
- (iv) Fruit and flower cultivation
- (v) Leather work
- (vi) Culturing fish
- (vii) Poultry
- (viii) Handloom
- (ix) Any handicraft according to the local need
- 2) Mother tongue
- 3) Mathematics
- 4) Geography, history and civics to be combined as social science
- 5) Painting and music
- 6) P.T., drill and sports etc.
- 7) General science comprising of physics, chemistry, botany, zoology, hygiene and nature study etc.
- 8) Home science
- 9) Hindi for that area in which it is not the mother tongue (Gandhi, 1951).

257. GANDHIJI AS AN IDEALIST, NATURALIST AND PRAGMATIC EDUCATIONIST

Idealism: Gandhiji emphasis on truth, non-violence and character development clearly indicates

that he was an idealist.

Naturalism: Gandhiji views of making mother-tongue as the medium of instruction and providing

freedom to the child reflect his naturalism.

Pragmatism: Gandhiji had an experimental approach to educational and other issues. He also emphasized learning through real life activities.

258. According to the 86th Constitutional Amendment Act, 2002, free and compulsory education for all children in 6-14 year age group is now a Fundamental Right under Article 21-A of the Constitution.

259. IMPAIRMENT AND DISABILITY:

Impairment: (*Dosh*, *Vikaar*) Illness, injury, complexity arising from any difficulty in the way our body works.

Disability: (*Nishkta*) Disability is more than a problem or difficulty with how our body works - a child with an impairment may experience disability when functioning in an environment that impacts the child's successful performance at a task.

260. Sensory Disabilities

Sensory disabilities arise when a child is unable to successfully perform due to impairment to the senses. Sense organs include organs of taste, smell, sensations of heat, cold, touch, pain, pressure, sight, hearing. Among the senses, impairments to the senses of sight and hearing, i.e. visual impairment and hearing impairment have considerable implications for teaching learning in the classroom.

261. Physical Disabilities

Physical disabilities arise when a child is unable to participate due to impairment of the physical organs affecting mobility, movement, and/ or dexterity. The Draft Rights of Persons with Disabilities Bill, 2012, in clarifying the benchmark disabilities locates cerebral palsy as a condition related to physical disability.

262. Cognitive, Intellectual Disabilities

Since specific disabilities, such as Autism Spectrum, intellectual impairments and learning difficulties are primarily associated with the working of the brain and/or how brain processes the information received, these are addressed under cognitive and intellectual disabilities.

263. AUTISM SPECTRUM DISORDER (ASD): ASD is a

developmental disorder. It refers to a range of serious developmental, neurological problems. Autistic disorder, autism or classical ASD, is the most severe form of ASD. It appears in early ages, usually before a child reaches 3 years of age and affects the regular development of social and communications skills. The Draft Rights of Persons with Disabilities Bill, 2012, defines "Autism Spectrum Disorder" as a "neuro-psychological condition typically appearing in the first three years of life that significantly affects a person's ability to communicate, understand relationships and relate to others, and is frequently associated with unusual or stereotypical rituals or behaviours".

264. SPECIFIC LEARNING DISABILITY: 1099

It is a general term used to describe specific kinds of learning problems. A learning disability affects ability to learn and use certain skills. The skills typically affected are reading, writing, listening, speaking, reasoning, directing attention, doing mathematical calculations and coordinating movements. Dyslexia or difficulties experienced in reading, Dyscalculia or difficulties with mathematics, and Dysgraphia or difficulties with writing are also used when addressing disabilities that affect specific aspects of learning.

52. According to the International Classification of Diseases (ICD) (2006), "Low vision, taken together with blindness, represents all visual impairment". That is, the term visual impairment includes moderate low vision, severe low vision and blindness.

265. Hearing Impairment

To understand HI, it is important to understand the two aspects of sound: **intensity** and **pitch**.

Intensity refers to loudness and is measured in decibels (dB).

Pitch or frequency of sound is measured in Hertz (Hz).

According to the Draft Rights of Persons with Disabilities Bill, 2012, HI refers to loss of 60 decibelsor more in hearing level (HL) in the better ear in the conversational range of frequencies. Hearing loss may be present in one or both ears and can be conductive hearing loss, sensori neural hearing loss or mixed hearing loss.

266. **Cerebral palsy** is a disorder that causes problems with movement and balance. It results from damage to the brain or mal-development of the developing brain, resulting in varying

degrees of physical disability. The physical disabilities may co-exist with other associated problems of hearing, vision, language and communication, intellectual disabilities, autism, and specific learning disabilities such as dyslexia. Some children with cerebral palsy also suffer from epilepsy. CP is not hereditary, it is not a disease nor is it infectious. It is non-progressive; there is no cure but with early diagnosis and suitable intervention, there is scope for improvement, regardless of the severity of the condition

267. **Locomotor Disability** refers to a person's inability to execute distinctive activities associated with movement of self and objects, resulting from affliction of musculoskeletal and/or nervous system (The Draft Rights of Persons with Disabilities Bill, 2012).

268.

WHAT IS GUIDANCE	WHAT GUIDANCE IS NOT
Guidance is a continuous process	Guidance is not compulsion
• It is concerned with problem & choice.	☐ It is not making decision for others
• It is an assistance to the individuals in the	☐ It is not advice
process of development.	☐ It is not pampering the student
• It is both a generalised & specialized service	☐ It is not direction
• It is a service meant for all.	☐ It is not adjustment
	\square It is not problem solving.

269. TYPES OF COUNSELIN

TYPES OF COUNSELING	CHIEF EXPONENT	FEATURE
Directive Counseling	B. G. Williamson	It is counselor oriented counselee is passive.
Non-Directive Counseling	Carl Rogers	Counselor is role is passive. Counselee is active.
Eclectic Counseling	Bordin (Thorne)	Both counselor & counselee is active.

270. A **construct** is an attribute or characteristic expressed in an abstract, general way; a variable is an attribute or characteristic stated in a specific, applied way. For example, *student achievement* is a construct, while the more specific term *grade point average* is a variable. The trend in educational research is to use variables rather than constructs in purpose statements, research questions, and hypotheses.

271.

Four Types of	Type of Variable	Examples
Independent	Measurement	
Variables		
Measured Variable	A categorical or continuous	Age of a child; performance on a
	variable that is measured or	test; attitudes assessed on a
	observed in the study	survey
Control Variable	A variable not directly measured	Often demographic variables
	but controlled through statistical	such as age, gender, race,
	or research design procedures	socioeconomic level
Treatment Variable	A categorical variable actively	Classroom learning: one group
	manipulated by the researcher	receives standard lecture and one

	and composed of two or more	group receives discussion;
	groups	researcher assigns students to
		groups and thus manipulates
		group membership
Moderating Variable	A categorical or continuous	Demographic variables such as
	variable measured or observed	age, gender, race, or
	as it interacts with other	socioeconomic level, a measured
	variables	variable such as performance or
		attitude, or a manipulated
		variable such as classroom
		instruction

272.

Type of Hypothesis	Purpose	Specific Language Found
		in the Hypothesis
Null Hypothesis	To test in the general population	There is no difference (or
	that there is no change, no	relationship) between
	relationship, no difference	
Alternative Hypothesis	The hypothesis that may be true if	Magnitude statements such
	the null is rejected, it suggests a	as higher, lower, more
	change, a relationship, or a	positive, more favorable
	difference	

- 273. There are five steps in hypothesis testing: (a) identify a null and alternative hypothesis; (b) set the level of significance, or alpha level; (c) collect data; (d) compute the sample statistic; and (e) make a decision about rejecting or failing to reject the null hypothesis.
- 274. A confidence interval or interval estimate is the range of upper and lower statistical values that are consistent with observed data and are likely to contain the actual population mean. Because means are only estimates of population values, they can never be precise, and sample means indicate a *point estimate* of the population mean. It is helpful, then, to consider a range of values around the sample mean that it could take given the multiple collection of samples.
- 275. A **table** is a summary of quantitative data organized into rows and columns. A **figure** is a summary of quantitative information presented as a chart, graph, or picture that shows relations among scores or variables. Tables are preferred to figures (APA, 2010) because tables convey more information in a simple form.
- 276. Various types of figures are used in educational research studies:

Bar charts depict trends and distributions of data.

Scatterplots illustrate the comparison of two different scores and how the scores regress or differ from the mean. This information is useful for identifying outliers and upper or lower ceiling effects of scores.

Line graphs display the interaction between two variables in an experiment. **Charts** portray the complex relationships among variables in correlational research designs.

277. **Observation** is the process of gathering open-ended, firsthand information by observing people and places at a research site. As a form of data collection, observation has both advantages and disadvantages. Advantages include the opportunity to record

information as it occurs in a setting, to study actual behaviour, and to study individuals who have difficulty verbalizing their ideas (e.g., preschool children). Disadvantages of observations are that you will be limited to those sites and situations where you can gain access, and in those sites, you may have difficulty developing rapport with individuals.

278. Key Characteristics of Survey Research

Survey researchers emphasize sample selection of a sample from a population to which they can generalize results; collect data using questionnaires and interviews that vary in forms (e.g., mailed questionnaires, Web-based questionnaires, one-on-one interviews, telephone interviews, and focus group interviews) and weigh the advantages and disadvantages of each; administer well-tested instruments with good questions and scales; and seek a high response rate from participants using procedures that will ensure a high return rate and will not be biased.

279. A **grounded theory design** is a systematic, qualitative procedure used to generate a theory that explains, at a broad conceptual level, a process, an action, or an interaction about a substantive topic. In grounded theory research, this theory is a "process" theory—it explains an educational process of events, activities, actions, and interactions that occur over time. Also, grounded theorists proceed through systematic procedures of collecting data, identifying categories (used synonymously with themes), connecting these categories, and forming a theory that explains the process. Two sociologists, Barney G. Glaser and the late Anselm L. Strauss, developed grounded theory in the late 1960s.

280. Characteristics of grounded theory are:

- A) Process approach: A **process in grounded theory research** is
- a sequence of actions and interactions among people and events pertaining to a topic.
- B) Theoretical sampling: Theoretical sampling
- in grounded theory means that the researcher chooses forms of data collection that will yield text and images useful in generating a theory. This means that the sampling is intentional and focused on the generation of a theory.
- C) Constant comparative data analysis: **Constant comparison** is an inductive (from specific to broad) data analysis procedure in grounded theory research of generating and connecting categories by comparing incidents in the data to other incidents, incidents to categories, and categories to other categories.
- D) A core category: the researcher selects a **core category** as the basis for writing the theory.
- E) Theory generation: This **theory in grounded theory**

research is an abstract explanation or understanding of a process about a substantive topic grounded in the data.

F) Memos: **Memos** are notes the researcher writes throughout the research process to elaborate on ideas about the data and the coded categories.

281. THE STEPS IN CONDUCTING

GROUNDED THEORY RESEARCH:

Step 1. Decide If a Grounded Theory Design Best

Addresses the Research Problem.

Step 2. Identify a Process to Study.

Step 3. Seek Approval and Access.

- Step 4. Conduct Theoretical Sampling.
- Step 5. Code the Data.
- Step 6. Use Selective Coding and Develop the Theory
- Step 7. Validate the Theory.
- Step 8. Write a Grounded Theory Research Report.
- 282. The term ethnography literally means "writing about groups of people." Ethnographic designs are qualitative research procedures for describing, analyzing, and interpreting a culture-sharing group's shared patterns of behavior, beliefs, and language that develop over time. Central focus is culture. A culture is "everything having to do with human behavior and belief". It can include language, rituals, economic and political structures, life stages, interactions, and communication styles. To understand the patterns of a culturesharing group, the ethnographer typically spends considerable time "in the field" interviewing, observing, and gathering documents about the group to understand their culture-sharing behaviors, beliefs, and language.

283. Types of Ethnography:

Realist ethnography

- Confessional ethnography
- Life history
- Autoethnography
- Micro ethnography
- Ethnographic case study
- Critical ethnography
- Feminist ethnography
- Postmodern ethnography
- Ethnographic novels.
- 284. A case study is an in-depth exploration of a bounded system (e.g., activity, event, process, or individuals) based on extensive data collection. *Bounded* means that the case is separated out for research in terms of time, place, or some physical boundaries. The "case" may be a single individual, several individuals separately or in a group, a program, events, or activities (e.g., a teacher, several teachers, or the implementation of a new math program).

285. CHARACTERISTICS OF ETHNOGRAPHIC STUDY:

- A) Cultural themes
- B) A culture-sharing group
- C) Shared patterns of behaviour, belief, and language
- D) Fieldwork
- E) Description, themes, and interpretation
- F) Context or setting
- G) Researcher reflexivity.
- 286. The term narrative comes from the verb "to narrate" or "to tell (as a story) in detail". In narrative research designs, researchers describe the lives of individuals, collect and tell stories about people's lives, and write narratives of individual experiences.

287. MAJOR CHARACTERISTICS OF NARRATIVE RESEARCH:

- Experiences of an individual—social and personal interactions
- Chronology of experiences—past, present, and future experiences
- Life stories—first-person, oral accounts of actions obtained through field texts (data)
- Restoring (or retelling or developing a metastory) from the field texts
- Coding the field texts for themes or categories
- Incorporating the context or place into the story or themes
- Collaboration between the researcher and the participants in the study, such as negotiating field texts.

288. EXAMPLES OF TYPES OF NARRATIVE RESEARCH FORMS:

- Autobiographies
- Biographies
- Life writing
- Personal narratives
- Narrative interviews
- Personal documents
- Life stories and life histories
- Oral histories
- Ethno-biographies
- Popular memories

289. Cosmology ask questions related to Universe, Theological questions related to religion or God, Anthropology ask questions related to Human being & Ontology is the study about nature of existence.

290. Epistemology relates to the source of human knowledge which has divided into 4 categories such as: Empirical(knowledge obtained through sense & can be verified), Revelation (based on faith), Authoritarian (based on experts opinion or sanctified over time as tradition), Rational (Use of reasoning, thought or logic for knowing something) & Intuition (Immediate feeling of certainty).

- 291. Taylor's four principles of Scientific Management are :
 - A) Managers should gather information, analyze it and reduce it to rules, laws or mathematical formula.
 - B) Managers should scientifically select and train workers.
 - C) Managers should ensure that the techniques developed by science are used by the workers.
 - D) Managers should apply the work equally between workers and themselves, where managers apply scientific management theories to planning and the workers perform the tasks pursuant to the plans.
- 292. Organisational Compliance includes the following:
 - A) Establishes its compliance responsibilities.

- B) Communicates those responsibilities to employees.
- C) Ensures business processes, incorporate internal policies for meeting legal requirements.
- D) Takes corrective action and updates tools, systems and materials as needed.

293. Axiology has mainly two branches: Ethics & Aesthetics. Ethics is the study of moral value & conduct where as Aesthetics deals with beauty & art.

294. KIRKPATRICK'S FOUR LEVELS OF CURRICULUM EVALUATION: According to this model, evaluation should always begin with level one, and then, as time and budget allows, should move sequentially through levels two, three, and four. Information from each prior level serves as a base for the next level's evaluation. Thus, each successive level represents a more precise measure of the effectiveness of the training program, but at the same time requires a more rigorous and time-consuming analysis.

Four levels are:

Level 1 Evaluation - Reactions

Level 2 Evaluation – Learning

Level 3 Evaluation - Transfer

Level 4 Evaluation- Results

- 295. Education is a social process by which society deliberately transmits its accumulated knowledge, skills and values from one generation to another.
- 296. The concept of Organisational Climate was formally introduced by the human relationists in the late 1940s. It is also referred to as the "situational determinants" or "Environmental determinants".
- 297. Education in narrower sense includes only getting degree/diploma/certificate after completion of a course in an institution but in wider sense it indicates as life long process.
- 298. Application of philosophical principle in the field of education to solve various educational issues is regarded as educational philosophy.
- 299. Philosophy and education are complementary to each other in the sense that both deal with nature of human being.
- 300. Philosophy provide theoretical guideline to the education where as education make it into practice.
- **301.** Organisational climate is the relatively enduring characteristic of an organisation which distinguishes it from other organisations: and (a) embodies members collective perceptions about their organisations with respect to such dimensions as autonomy, trust, cohesiveness, support, recognition, innovation and fairness; (b) is produced by member interaction; (c) serves as a basis for interpreting the situation; (d) reflects the prevalent norms, values and attitudes of the organisation's culture; and (e) acts as a source of influence for shaping behaviour.
- 302. The term "climate" is most commonly associated with the study of meteorology, and more specifically aims to observe, describe and measure the various physical characteristics of the atmosphere such as rainfall, temperature, changes in season and so on. When the term "climate"

is transplanted into the context of the organisation, it becomes more complex because it is not so easy to observe and measure and it is constantly changing as such is not necessarily enduring.

303. Psychology owes its origin from Philosophy. In the year 1950, Rudolf Goeckle first used the word "Psychology". The term "Psychology" is a combination of two Greek words "Psyche" and "Logus" which mean "Soul" and "Science", respectively.

304. TRAITS OF SUCCESSFUL LEADERS:

• Adaptable • Alert to social environment • Achievement oriented • Assertive • Cooperative • Decisive • Dependable • Persistent • Self-confident • Tolerant of stress • Willing to assume responsibility.

305. WEAKNESS OF TRAIT THEORY OF LEADERSHIP:

- A) Ignores the followers and the situation
- B) Does not differentiate regarding the specific value of each trait
- C) Correlational evidence only (not causal)

306. Leadership, as a process, shapes the goals of a group or organization, motivates behavior toward the achievement of those goals, and helps define group or organizational culture. It is primarily a process of influence.

307. The Managerial Grid: Blake and Mouton (1985) tried to show an individual's style of leadership on a grid consisting of two separate dimensions, viz. concern for production and concern for people which are similar to the concept of employee-centered and production-centered styles of leadership as mentioned earlier. The grid has nine possible positions along each axis creating a total of eighty-one possible styles of leader behaviour. The style is known as task management which focuses wholly on production. The style in contrast emphasizes people to the exclusion of task performance and is known as country club style of management. The ideal style of leadership, as envisioned by the theory of managerial grid is the style or team management style where there is maximum concern for both people and production.

308. Growth refers to physical increase in some quantity over time. It includes changes in terms of height, weight, body proportions and general physical appearance. Growth refers to structural and physiological changes (Crow and Crow, 1962).

Development refers to the qualitative changes in the organism as whole. Development is a continuous process through which physical, emotional and intellectual changes occur. It is a more wider and comprehensive term than growth. It is also possible without growth. According to Crow and Crow (1965) development is concerned with growth as well as those changes in behavior which results from environmental situation."

309. Gamification is the use of game thinking and game mechanics in a non-game context to engage users and solve problems. Gamification is the use of game-based mechanics, aesthetics and game thinking to engage people, motivate action, promote learning and solve problems. Basically it's the use of gaming technology to solve problems outside of the games sector.

- 310. SCORM, or Shareable Content Object Reference Model, defines a specific way of constructing Learning Management Systems and training content so that they work well with other SCORM conformant systems. Basically, the different versions of SCORM all govern the same two things: packaging content and exchanging data at run-time. Packaging content determines how a piece of content should be delivered in a physical sense. Run-time communication, or data exchange, specifies how the content "talks" to the LMS while the content is actually playing.
- 311. TinCan is an open source API that adds some needed extra functionality to SCORM and lifts many restrictions of older specifications.
- 312. Blended learning is a combination of offline (face-toface, traditional learning) and online learning. It provides individuals with the opportunity to enjoy the best of both worlds. Blended learning is often also referred to as "hybrid" learning.
- 313. Collaborative learning is an e-learning approach where students are able to socially interact with other students, as well as instructors. In essence, learners work together in order to expand their knowledge of a particular subject or skill. In e-learning environments, this is typically done through live chats, message boards, or instant messaging. Collaborative learning is based upon the principle that students can enrich their learning experiences by interacting with others and benefiting from one another's strengths.
- 314. Artificial Intelligence is the development of computer systems that are able to perform tasks that would require human intelligence. Examples of these tasks are visual perception, speech recognition, decision-making, and translation between languages. Real Life A.I. Examples are Self Driving Cars, Boston Dynamics, Navigation Systems, ASIMO, Chatbots, Human vs Computer Games etc.
- 315. Weak A.I. Machines with weak Artificial Intelligence are made to respond to specific situations, but can't think for themselves. A machine with strong A.I. is able to think and acts just like a human. It is able to learn from experiences. Since there are no real life examples of strong A.I. yet, the best representation would be how Hollywood portrays robots.
- 316. Machine Learning An application of Artificial Intelligence that gives machines the ability to learn and improve without the help of humans or new programming.
- 317. In the 1950s Alan Turing created the Turing Test which is used to determine the level of intelligence of a computer.
- 318. Intelligence Quotient (IQ): Measure of intelligence takes into account of a child's mental and chronological age . IQ Score = $MA / CA \times 100$
- Mental age (MA): the typical intelligence level found for people at a given chronological age. Chronological age (CA): the actual age of the child taking the intelligence test.
- 319. The verb 'manage' comes from the Italian maneggiare (to handle, especially tools), which derives from the Latin word manus (hand). The French word mesnagement (later ménagement) influenced the development in meaning of the English word management in the 17th and 18th centuries.
- 320. While Education is the provision of a series of learning experiences to students in order to impart knowledge, values, attitudes and skills with the ultimate aim of making them

productive members of society, Educational Management is the process of planning, organising, directing and controlling the activities of an institution by utilising human and material resources so as to effectively and efficiently accomplish functions of teaching, extension work and research.

321. CONTRAST THE CHARACTERISTICS OF EDUCATIONAL TECHNOLOGY AND INSTRUCTIONAL TECHNOLOGY:

EDUCATIONAL TECHNOLOGY	INSTRUCTIONAL TECHNOLOGY
Teaches about technology as a content area	Teaches with technology (uses technology as
	a tool)
Key words: integration and education	Key words: learning environments,
	instructional systems and process
Shape curriculum or solve performance	Focus more on the development and creating
	of the learning system that involve some type
	of technology
Primary Goal: Technological literacy for	Primary Goal: To enhance the teaching and
everyone	learning process
Concerned with the broad spectrum of	Primarily concerned with the narrow
technology (How humans have designed and	spectrum of information and communication
innovated the natural world)	technologies

- 322. A prognostic assessment expands the findings of an assessment with analysis of abilities and potentials with a further dimension: the future development of the concerned person, as well as the necessary conditions, timeframe and limits.
- 323. Content validity refers to the connections between the test items and the subject-related tasks. It is judged by the degree of relationship between diagnostics techniques and achievements in curriculum. The content validity of academic achievement test in subjects is examined by checking the test items against the complete courses of study. The test should evaluate only the outline of the content related to the field of study in a manner sufficiently representative, relevant, and comprehensible. Based on the outline of the content indicating the kinds of knowledge and abilities which the students answer correctly. The overall judgment is based on the extent of agreement between the test and the instructional plan.
- 324. Education of teachers must have been born in India in 2500 B.C. The history of Indian teacher education may be divided into five parts:
- A) Ancient and Medieval Period (2500 B.C. to 500 B.C.)
- B) Buddhist Period (500 B.C. to 1200 A.D.)
- C) MuslimPeriod (1200 A.D. to 1700 A.D)
- D) British Period (1700 A.D. to 1947 A.D.)
- E) Teacher education in independent India (1947 up to this date).
- 325. Construct validity is the relationship between the results of a technique of measurement and other indicators of the characteristics that are measured. It implies using the construct (concepts, ideas, and notions) in accordance to the state of the art in the field. Construct validity seeks agreement between updated subject-matter theories and the specific measuring components of the test. This type of validation is often used for measures of a psychological characteristic that is assumed to exist by empirical or theoretical deduction. The general mental ability comprises independent factors such as verbal ability, number ability, perceptual ability,

special ability, reasoning ability and memory ability. In order to establish the construct validity of a test, it may be necessary to correlate the results of other tests.

326. NEED OF PROFESSIONAL ETHICS:

A) For self correction, B) For self satisfaction, C) To guide the conduct and behavior, D) To shape the personality, E) To set up ideals for students, F) Improvement of human relation, G) Development of society, H) The professional excellence, I) To improve the professional environment, J) To follow norms and principles of profession.

327. Criterion-Related Validity It referred to as instrumental validity; it is used to demonstrate the accuracy of a measure or procedure by comparing it with another process or method which has been demonstrated to be valid. For example, imagine a hands-on driving test has been proved to be an accurate test of driving skills. A written test can be validated by using a criterion related strategy in which the hands-on driving test is compared to it.

328.

320.	
ORGANISATIONAL CLIMATE	ORGANISATIONAL CULTURE
It has its roots in social psychology discipline	Originates in the anthropology domain
Focus is on the individual's perceptions and	Focus is on analyzing the underlying
cognitions which are used to comprehend	structure of symbols, myths and rituals which
and discriminate attributes of the	lead to shared values, norms and meanings in
organization's internal environment	groups
Relatively enduring characteristic of the	Highly enduring characteristic of the
organization	orga <mark>n</mark> ization
More shallow with regard to penetrating	Occurs at the level of attitudes and values,
Individuals' consciousness and	but also at a deeper level of assumptions. Is
organizational realities. Is more visible and	rela <mark>ti</mark> vely invisible and is pr <mark>econscious in</mark>
operates at the level of attitudes and values	individuals
Evolves more quickly and changes rapidly	Evolves slowly and is not easy to change
Unique characteristics of individuals are	Collective characteristics are exhibited
evident	
Quantitative methodology is used	Qualitative methodology is use

329. USES OF CHECKLIST:

- A. It is useful for survey and research.
- B. The amount of characteristics or traits of subjects can be known.
- C. It is helpful to give the appropriate guideline to the subjects.
- D. To know the developmental direction of the specific behavior pattern check list is used.
- E. It is useful for self-evaluation and other's evaluation.
- 330. Concurrent validity refers to the usefulness of a test in closely relating to measures or scores on another test of known validity. Tests are validated by comparing their results with a test of known validity. Concurrent validity indicates the relationship between a measure and 30 more or less immediate behavior or performance of identifiable groups. Concurrent validity is considered when any test is used for the purpose of distinguishing between two or more groups of individuals whose status at the time of testing is different. Concurrent validity is used for statistical methods of correlation to other measures. Once the tests have been scored, the

relationship between the examinees' status and their performance (i.e., pass or fail) is estimated based on the test.

331. LIMITATIONS OF CHECKLIST:

- A. As only sign is used in checklist therefore no other options are found.
- B. It is subjective and biased.
- C. It is difficult to evaluate the personality of student or adjustment capacity through checklist.
- 332. Predictive validity refers to the usefulness of a test in predicting some future performance. Predictive validity is measured by the degree of relationship between a measured and subsequent criteria measure of judgments. This type of validity is used in tests of intelligence, test of aptitudes, vocational interest inventories and projective techniques. This type of validity is especially useful for test purposes such as selection or admissions.

333. TYPES OF RATING SCALES:

The following are the main scales- Numerical Scales, Graphic Scale, Standard Scales, Check Lists, Forced Choice Scale, Ranking method and Q-Sort-method.

334. Face validity is the characteristics which appear to measure those which are actually sought to be measured. It determined by a review of the items and not through the use of statistical analyses. Unlike content validity, face validity is not investigated through formal procedures. Instead, anyone who looks over the test, including examinees, may develop an informal opinion as to whether or not the test is measuring what it is supposed to measure. Face validity is not however suitable measure of validity, sometimes it might be misleading.

335. IMPORTANCE OF RATING SCALE:

- A) Any characteristic can be measured through rating scale.
- B) It is helpful to evaluate the behaviour which other tools can hardly deal with.
- C) Abstract characteristics can be evaluated by rating scales.
- D) It is helpful to personality or the social development of person.
- E) The level of each characteristic of each student of the class can be known.
- F) It is helpful to deliver all the necessary information related to the progress of students.
- G) The rating scale is also useful for the measurement of other methods or techniques.
- H) Within less time more opinions can be obtained.

336. LIMITATIONS OF RATING SCALE:

- a) The evaluation being totally based on observation, the bias, liking, disliking, beliefs and assumptions etc., of the evaluator are the hindering factors for unbiased evaluation.
- b) The unawareness about the characteristics leads to the wrong observation.
- c) If large number of behavioral evaluation is to be done then the evaluator being bored of the tick mark generalizes the results.
- 337. The cognitive domain involves the development of our mental skills and the acquisition of knowledge. The six categories under this domain are:
- 1. Knowledge: Knowledge is the ability to recall data and/or information. Example: A child recites the English alphabet.
- 2. Comprehension: Comprehension is the ability to understand the meaning of what is known. Example: A teacher explains a theory in his own words.

- 3. Application: Application is the ability to utilize an abstraction or to use knowledge in a new situation. Example: A nurse intern applies what she learned in her Psychology class when she talks to patients.
- 4. Analysis: the ability to differentiate facts and opinions. Example: A lawyer was able to win over a case after recognizing logical fallacies in the reasoning of the offender.
- 5. Synthesis: Synthesis the ability to integrate different elements or concepts in order to form a sound pattern or structure so a new meaning can be established. Examples: A therapist combines yoga, biofeedback and support group therapy in creating a care plan for his patient.
- 6. Evaluation: Evaluation is the ability to come up with judgments about the importance of concepts. Examples: A businessman selects the most efficient way of selling products.
- 338. AFFECTIVE DOMAIN: This domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. This domain is categorized into 5 sub-domains, which include: (1). Receiving (2) Responding (3) Valuing (4) Organization (5) Characterization.
- 339. Mental hygiene is a Science which deals with the process of attaining mental health and preserving mental health in the society. The term mental health is closely related with the term mental hygiene as the main objective of mental hygiene is to attain mental health. In other words, mental hygiene is a means of mental health. That is why we can say that mental hygiene is the means and mental health is the end.
- 340. Mental hygiene has four important functions. These are:
- A) Prevention or preventive —The most important function of mental hygiene is to prevent mental health problems by developing some programs.
- B) Creative Another function of mental illness is to develop program like counseling, psychotherapy to treat an individual or a group or to treat a mental patient.
- C) Preservative- Not all people are mentally ill; rather of them possess sound mental health. So the third function is to develop program through education for preserving mental health.
- D) Training- Another function of mental hygiene is to train a set of personnel who can help the people with psychological problem by trying to understand their problems and then helping them to meet their needs.

341. STERNBERG'S TRIARCHIC THEORY OF INTELLIGENCE:

Analytical	It is what we generally think of as academic ability. It enables us to
Intelligence	solve problems and to acquire new knowledge. Problem—solving skill
	include encoding information, combining and comparing pieces of
	information and generating a solution.
Creative	Is defined by the abilities to cope with novel situations and to profit
Intelligence	from experience. The ability to quickly relate novel situations to
	familiar situations (that is, to perceive similarities and differences)
	fosters adaptation. Moreover, as a result of experience, we also
	become able to solve problems more rapidly.
Practical	Practical Intelligence—or "street smarts", enable people to adapt to
Intelligence	the demands of their environment. For example, keeping a job by
	adapting one's behavior to the employer's requirements is adaptive.

	But if the employer is making unreasonable demands, reshaping the
	environment (by changing the employer's attitudes) or selecting an
	alternate enviornment (by finding a more suitable job) is also adaptive.

- 342: According to Allport, personality is the dynamic organisation within the individual of those psycho-physical systems that determine his unique adjustment to his environment.
- 343: According to Allport , there are two types of traits (i) Common traits (ii) Personal traits or dispositions.
- 344: Common traits: Allport stated that within any particular culture, there are certain behaviours that are commonly obtained as part of that culture and everyone in that culture recognises the same and even can label them. Common traits can be considered abstractions which reflect social values and social norms. These traits originate from social pressure on members to behave in a particular manner. Allport did not attach much importance to common traits as they are only surface manifestations.
- 345: The first of the modern personality theories was developed by Sigmund Freud and is known as psychoanalytic theory. The psychiatric practice of this theory is called psychoanalysis.
- 346: Personal traits or dispositions: Allport said that it is a generalised neuropsychic structure that is unique to the individual concerned and this makes for the difference in the behaviours of many individuals even though they may face the same situation. Allport defined this personal disposition as "a generalized neuropsychic structure, unique to the individual, with the capacity to render many stimuli functionally equivalent, and to initiate and guide consistent or equivalent forms of adaptive and stylistic behaviour." (Allport, 1938)
- 347:Humanism or humanistic psychology, was initiated in the 1950s by an American psychologist named Abraham Maslow .
- 348:Freud theorized that healthy personality development requires a balance between the id and the superego. These two divisions of the mind are naturally at conflict with one another: The id attempts to satisfy animal, biological urges, while the superego preaches patience and restraint. The struggle between these two is an example of intrapsychic conflict—conflict within the mind.
- 349:Freud described hysteria as an example of repression.
- 350: Some of the important characteristics of traits according to Allport are: Traits are not theoretical structures or constructs but are real and found within the individual. Traits guide and direct behaviour and enable the individual to behave in a particular manner. Traits are verified empirically. Different traits are not absolutely independent of each other but have overlapping functions. Stable traits can also change over time.
- 351. Grounded theory designs are systematic, qualitative procedures that researchers use to generate a general explanation (grounded in the views of participants, called a grounded theory) that explains a process, action, or interaction among people.

- 352. Mixed methods designs are procedures for collecting, analyzing, and mixing both quantitative and qualitative data in a single study or in a multiphase series of studies.
- 353. Action research designs are systematic procedures used by teachers (or other individuals in an educational setting) to gather quantitative and qualitative data to give immediate solution to the problem, to address improvements in their educational setting, their teaching, and the learning of their students.
- 354: Allport categorized the personal dispositions into three groups, viz., i) cardinal traits ii) central traits and iii) secondary traits.
- 355: Maslow studied with Harry Harlow, who worked with monkeys at the University of Wisconsin . Harlow's study of monkey dominance hierarchies likely influenced Maslow's ideas.
- 356: According to Allport, the self or proprium has seven functions that develops through sevens stages- i) Sense of body: (First 2 years of life); ii) Self identity: (First 2 years of life); iii) Self esteem (2 to 4 years of age); iv) Self extension: (4 to 6 years); v) Self Image (4 to 6 years); vi) Rational coping (6-12 years); vii) Proprium (after the age of 12 years).
- 357: Rogers's theory is quite often known as self theory. Rogers theorized that each person has an inner concept of what she or he ideally would like to be—an ideal self. It is theorized that each of us has an inner concept of what we are really like—a real self. The drive of self-actualization, then, is the striving to merge these two concepts. Self-actualization is the ongoing attempt to make your real self congruent with your ideal self, to bring the concept of what you are actually like (your real self) more and more into accord with what you think you should be like (your ideal self). Self-actualization represents a drive to merge the real self with the ideal self.
- 358: Boys, Freud reasoned, become protective of their penis and fear having it taken away. This is known as castration anxiety and might be manifested in a young boy's fear of knives, scissors, or being bitten by dogs. Freud said that in the unconscious minds of preschool boys, who favor their mothers and fear their fathers (castration anxiety). The child resents the father for getting all of the mother's attentions. Many psychoanalysts suggest a similar conflict for preschool girls, referred to as the Electra complex; it is essentially the reverse of the situation for boys: love and desire for father, resentment for mother.

359: Howard Gardner's Theory of Multiple Intelligences

HOWARD GARDNER'S	DESCRIPTION
EIGHT INTELLIGENCES	
Linguistic	An ability to analyzeinformation and createproducts involving
	oral andwritten language such asspeeches, books, and memos.
Logical-Mathematical	An ability to develop equations and proofs, makecalculations,
	and solveabstract problems
Spatial	An ability to recognize andmanipulate large-scale andfine-
	grained spatial images
Musical	Musical An ability to produce, remember, and makemeaning
	of different patternsof sound.

Naturalist	An ability to identify and distinguish among different types of plants, animals, and weather formations that are found in the natural world.
Bodily-Kinesthetic	An ability to use one's ownbody to create products orsolve
Bodily-Killestiletic	, , ,
	problems.
Interpersonal	An ability to recognize andunderstand other people's moods,
	desires, motivations, and intentions.
Intrapersonal	An ability to recognize andunderstand one's own
1	moods, desires, motivations, and intentions.

360: Cardinal traits according to Allport: These are central to the individual and these traits manifest themselves in almost all situations and in the individual's very personality. Cardinal traits have an overwhelming influence on the behaviour of the individual in that they guide and direct almost all types of behaviour of the person. These traits are at the very core of the personality.

361: Sigmund Freud's psychoanalytic theory says that traumatic events are repressed into the unconscious part of the mind, where they can influence behavior and personality. In psychoanalytic theory, the mind protects itself from threats by using defense mechanisms such as repression, rationalization, and sublimation.

362: Central traits according to Allport : Common traits that make up our personalities. Traits such as kindness, honesty, friendliness are all examples of central traits.

363: Rogers proposed a style of counseling that are known by several terms, including Rogerian, person-centered, client-centered, and nondirective. The essence of Rogers's counseling style is to help clients (notice that they are not called patients) with the process of self-discovery. The counselor helps a client to become aware of his or her true inner self, the true personality of feelings and self-concept.

364: Freud theorized three structures of personality: the id (seeks pleasure), the ego (judges reality), and the superego (morality, including conscience).

365: Secondary traits according to Allport: These are not overwhelming like the cardinal traits but it can be reflected or seen in the various preferences and attitudes of the individual concerned. They can also change in certain special situations.

366: Types of functional autonomy according to Allport : There are two types of functional autonomy , viz., i) Perseverative functional autonomy and (ii) Propriate functional autonomy.

367: The ego according to Freud: Greek and Latin for "I," this personality structure begins developing in childhood and can be interpreted as the "self." The ego is partly conscious and partly unconscious. The ego operates according to the reality principle; that is, it attempts to help the id get what it wants by judging the difference between real and imaginary. If a person is hungry, the id might begin to imagine food and even dream about food. (The id is not rational.) The ego, however, will try to determine how to get some real food. The ego helps a person satisfy needs through reality.

368: If one have a well-developed proprium and a rich, adaptive set of dispositions, he/she have attained psychological maturity, Allport's term for mental health. He lists seven characteristics: 1. Specific, enduring extensions of self, i.e. Involvement. 2. Dependable techniques for warm relating to others (e.g. trust, empathy, genuineness, tolerance...). 3. Emotional security and self-acceptance. 4. Habits of realistic perception (as opposed to defensiveness). 5. Problem-centeredness, and the development of problem-solving skills. 6. Self-objectification – insight into one's own behavior, the ability to laugh at oneself, etc. 7. A unifying philosophy of life, including a particular value orientation, differentiated religious sentiment, and a personalized conscience.

369: Freud taught that Intrapsychic conflict can involve disputes between the id (which attempts to satisfy biological urges) and the superego (which represents morality).

370: Freud suggested an analogy about the mind. He said that the mind is like an iceberg in the ocean, floating 10% above the water and 90% below. In Freud's view, only about 10% of our behaviors are caused by conscious awareness—about 90% are produced by unconscious factors. According to psychoanalytic theory, most of what controls our behaviors, thoughts, and feelings is unknown to our aware minds. Normally, the unconscious guides us. Freud said that the mind could be divided into three abstract categories. These are the id, the ego, and the superego.

371: Carl Rogers developed self theory and a method of nondirective counseling aimed at helping people become more self-actualized and building congruence between experiences and the person's sense of self.

372: John B. Watson was the founder of behaviorism, but B. F. Skinner was the most influential researcher and advocate of this school of psychology.

373: Skinner stressed three factors as determiners of behavior: genetics, personal history, and the current setting.

374: FREUD'S PSYCHOSEXUAL STAGES:

STAGE	APPROXIMATE AGES	MAIN FEATURES
ORAL	Birth–1 1/2 Or 2 years	Mouth, Dependency
ANAL	$1\frac{1}{2}$ – 3 years	Toilet Training, Give And Take
PHALLIC	3 – 6 years	Oedipus Complex, Identification,
		Superego
LATENCY	6 – 12 years	Repression Of Sexuality
GENITAL	12 years	Adulthood Development Of Normal
	-	Sexuality

375: Gestalt theories generally "stress[sed] the predominance of the whole over the parts", proposing that observers tend to perceive any object only in relation to its surroundings: "There are wholes, the behaviour of which is not determined by that of their individual elements, but where the part-processes are themselves determined by the intrinsic nature of the whole. It is the hope of Gestalt to determine the nature of such wholes." –Max Wertheimer.

376: The id according to Freud: Latin for the term "it," this division of the mind includes our basic instincts, inborn dispositions, and animalistic urges. Freud said that the id is totally unconscious, that we are unaware of its workings. The id is not rational; it imagines, dreams, and invents things to get us what we want. Freud said that the id operates according to the pleasure principle—it aims toward pleasurable things and away from painful things. The id aims to satisfy our biological urges and drives. It includes feelings of hunger, thirst, sex, and other natural body desires aimed at deriving pleasure.

377: Behaviorism focuses on behavior, how it is learned within the environment, and how situations influence a person's actions. The behaviorist approach to personality sees a newborn as essentially neutral; behaviors are learned depending on experiences in the world. Behavioral theories also emphasize observational learning—learning behaviors by seeing or hearing others. Bandura, Ross, and Ross showed how children learn aggressive behaviors by viewing adults acting aggressively

378: In 1923, Wertheimer discussed "organization of perceptual forms". In this paper, Wertheimer lays out laws central to the Gestalt movement, noting that, given "a number of stimuli". The methods of association are identified in several laws: The Factor of Proximity, The Factor of Similarity, The Factor of Uniform Destiny(or 'Common Fate'), 'law of simplicity', The Factor of Direction, The Factor of Closure, 'The Factor of the 'Good Curve'.

379: Freud taught that slips of the tongue and dreams could be analyzed to give clues as to what is in a person's unconscious. The elements of a dream are called the manifest content; the hidden meanings are called the latent content.

380: The superego according to Freud: This term means "above the ego," and includes the moral ideas that a person learns within the family and society. The superego gives people feelings of pride when they do something correct (the ego ideal) and feelings of guilt when they do something they consider to be morally wrong (the conscience). The superego, like the ego, is partly conscious and partly unconscious. The superego is a child's moral barometer, and it creates feelings of pride and guilt according to the beliefs that have been learned within the family and the culture.

381: The Gestalt movement, pioneered by Max Wertheimer (1880 – 1943), Kurt Koffka (1886 – 1941) and Wolfgang Köhler (1887 – 1967) emerged in Germany in 1912 and, until 1933, exercised "a dominating influence on German psychology".

382: Development of Berlin school of Gestalt psychology.

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Carl Stumpf (1848-1936)	Founded the Laboratory of Experimental
	Psychology at Berlin (1893).
Christian von Ehrenfels (1859-1932)	Introduces the notion of "Gestalt" in
	Philosophy and Psychology.
Vittorio Benuss (1878-1927)	Introduces Gestalt Psychology in Italy.

Max Wertheimer (1880 – 1943)	Key papers in 1912 and 1923, book on
	"Productive Thinking" (1945).
Kurt Koffka (1886 – 1941)	"Principles of Gestalt Psychology" (1935).
Wolfgang Köhler (1887 – 1967)	Introduces Gestalt Psychology in the U.S.,
	e.g. Psychological Bulletin paper in 1922
	and book on "Gestalt Psychology" (1929).

383: Characteristic Of Personality: Psychophysical systems, Dynamic organization, Consistency, Unique adjustment to environment, Development of personality structure, Consciousness, Potentiality for change.

384: In 1974, centrally sponsored scheme for Integrated Education for Disabled Children (IEDC) was introduced to provide equal opportunities to children with disabilities in general schools and facilitates their retention.

385: Salamanca Statement in 1994 (UNESCO) played a vital role to promote Integrated Education for Disabled Children into mainstream schools in developing countries.

386: Target groups in Inclusive Education : Diverse learners, marginalized groups, learners with disabilities.

387: Just-In-Time is a Japanese Management Philosophy which has been used in Japan since the early 1970s. It was first developed and perfected within the Toyota manufacturing plants by Taiichi Ohno. It is said to be the management philosophy not a technique.

388: Poka Yoka is a Japanese phrase that means error prevention. A Poka is an inadvertent error and Yoka is for preventing. It was developed in the 1960s to prevent human error by Shigeo Shingo, an Japanese engineer at the Toyota car factory.

389: The Internationa Classification of Impairments, Disabilities and Handicaps (ICIDH) was published by WHO in 1980.

390: Herbart mentioned four steps for presenting the Model of Memory Level of Teaching : Focus, Syntax, Social system, Support system.

391: Fegenbaum (1956) categorized quickly cost into Prevention Appraisal Failure Costs (PAFC). The failure costs can be further classified into subcategories i.e. internal and external failure costs.

392: The International Network for Quality Assurance Agencies in Higher Education (INQAAHE) is a world wide association that is active in thepry and practice of quality assurance inhigher education.

393: In 1990, Taylor published "The Principle of Scientific Management".

394: George R. Terry: Leadership is an "activity of influencing people to strive willingly for group objectives".

395: SMART in Transactional Approach to Leadership means : S- Specific, M- Measurable, A- Attainment, R- Realistic, T- Timely.

- 396: The Three-Dimentional Grid or 3-D Leadership Model is developed by Professor Bill Reddin, who introduced the concept of "situational demands".
- 397: Reddin 3-D Leadership Model axes represent the 'task-orientation', 'relationship-orientation', 'effectiveness'.
- 398. Herse's and Blanchard's Situational Theory of leadership is also known as 'Life Cycle Theory of Leadership'.
- 399. The full form of 'LMX' Theory is 'Leadership- Member Exchange Theory'.
- 400. According to the Oxford Dictionary, quality means 'degree of excellence'.
- 401. Article 26 of the 1948 Universal Declaration of Human Rights states that 'everyone has the right to education'.
- 402. The UNESCO in its medium- termplan of 1992- 1998 emphasized on Value Education to be an integral part of basic education.
- 403. The Delors commission in their 1996 report to UNESCO introduced the four pillars of education Learning to know, Learning to do, Learning to live together, Learning to be.
- 404. UNESCO stands for United Nations Educational, Scientific and Cultural Organisation.
- 405. In the year 2000, the world's governments adopted the six EFA (Education For All) goals and the eight MDG (Millennium Development Goals).
- 406. The concept of Six Sigma was introduced by Motorola in 1986. Bill Smith eventually formulated the methodology in 1986 but was popularized by Jack Welch who incorporated the strategy in his business processes at General Electric.
- 407. Two Six Sigma methods are DMAIC and DMADV.
- 408. DMAIC in Six Sigma stands for: D= Define the Problem, M= Measure and find out the key points of the current process, A= Analyze the data, I= Improve the current process based on the research and analysis done in the previous stage, C= Control the process so that they do not lead to defect.
- 409. DMADV in Six Sigma stands for: D= Design strategies and processes which ensure hundred persent customer satisfaction, M= Measure and identify parameters that are important for quality, A= Analyze and develop high level alternatives to ensure superior quality, D= Design details and processes, V= Verify various processes and finally implement the same.
- 410. Walter A Shewhart developed the Shewhart Cycle Learning and Improvement cycle, combining both creative management thinking with statistical analysis. This cycle contains four continuous steps: Plan, Do, Study, Act.
- 411. "Economic Control of Quality of Manufactured Product" was written by Walter A Shewhart which was published in 1931.

- 412. Edward Deming has made three main contributions to the field of management: a) The Fourteen Points for transformation of an organization, b) The Deadly Disease of organization, c) The System of Profound Knowledge.
- 413. C K Prahlad in his book "The Fortune at the Bottom of the Pyramid' (2002) used the motto "eradicating poverty through profits"
- 414. The Three Step Model of Change by Kurt Lewin represent the three steps: Unfreezing, Changing, Refreezing.
- 415. Cost of Quality is a methodology of organizational management. The Cost of Quality can be presented by the sum of two factors. The Cost of Good Quality(CoGQ) + The Cost of Bad Quality (CoBQ) = The Cost of Quality.
- 416. Logical Positivism eliminates metaphysics.
- 417. Roy Wood Sellers: "Philosophy is concerned with everything as a universal science".
- 418. Wittgenstein wrote 'Tractatus Logico Philosophicus'.
- 419. The modern philosophy begins with Descartes.
- 420. Taylor: "Culture is the complex whole which includes knowledge, belief, art, moral, laws and other".
- 421. Socialization is the process by which people learn to adopt the norms, values, attitudes and behaviors accepted and practiced by the system.
- 422. The movement from one social class to another is known as social mobility.
- 423. Article 15(4) empowers state to make special provision for the advancement of any socially and educationally backward classes of citizen.
- 424. STEP = Support to Training and Employment Program for Women. An initiative of Govt. of India.
- 425. The term 'un touch ability' has been abolished according to the article 46 in the Indian Constitution.
- 426. Reviewing the literature means locating summaries, books, journals, and indexed publications on a topic; selectively choosing which literature to include in your review; and then summarizing the literature in a written report. The skills required for reviewing the literature develop over time and with practice.
- 427. If the research problem covers a broad topic of concern, then the researcher needs to focus it so that he/she can study it. A focused restatement of the problem is the purpose statement. The purpose statement contains the major focus of the study, the participants in the study, and the location or site of the inquiry. This purpose statement is then narrowed to research questions or predictions that you plan to answer the research study.

- 428. Collecting data in research work means identifying and selecting individuals for a study, obtaining their permission to study them, and gathering information by asking people questions or observing their behaviors, collection of numbers (test scores, frequency of behaviors) or words (responses, opinions, quotes). These sections offer detailed, technical discussions about the mechanics and administration of data collection.
- 429. Kohlberg's stages of moral development are: a) The Pre-Conventional Level, b) The Conventional Level and c) The Post-Conventional Level.
- 430. Mind mapping is a technique that can be used for identifying alternative solutions. It was developed by Tony Buzan in 1970. It uses pictures and word phrases to organize and develop thoughts in a non-linear fashion.
- 431. Charles Spearman (1927) proposed a two factor theory of intelligence consist of general factor (g0 and specific factor (s).
- 432. The three dimensional theory of intelligence of Guilford provides 120 factors of intelligence. Five kinds of operations; Six kinds of products; Four kinds of contents (5*6*4=120).
- 433. PASS model of intelligence was developed by J P Das, Jack Naglieri and Kirby in 1994. PASS stands for P= Planning, A= Attention, S= Simultaneous, S= Successive.
- 434. The concept of social intelligence was given by Edward Lee Thorndike in 1920.
- 435. The concept of emotional intelligence was propounded by Daniel Goleman in 1998 in his book 'Working with Emotional Intelligence'.
- 436. In Psychology, emotional intelligence is the ability to identify and manage one's emotion as well as other people's emotion.
- 437. Ethnographic designs are qualitative procedures for describing, analyzing, and interpreting a cultural group's shared patterns of behaviour, beliefs, and language that develop over time. In ethnography, the researcher through a participatory observation provides a detailed picture of the culture-sharing group, drawing on various sources of information.
- 438. Narrative research designs are qualitative procedures in which researchers describe the lives of individuals, collect and tell stories about these individuals' lives, and write narratives about their experiences.
- 439. Binet Simon Intelligence Scale/Test of mental ability was devised by Alfred Binet and Theodore Simon in 1905. At first, the scale have 30 items to assess mental age. This scale was revised in the year 1908, and developed a scale of 59 items for the age group 3-13 years along with a method of finding out the mental age. This scale again revised in 1911 and prepared a scale which contained tests for age group 3-16 years.
- 440. Stanford- Binet Intelligence Scale/ Test is the revised form of Binet Simon Intelligence Scale/Test by Lewis Terman in 1916. This scale had 90 items. In 1937, two higher age- groups were added in this scale i.e. Superior adult mental age is 19 years and very Superior adult mental age is 22 years.

441. Wechsler Intelligence Scale/ Test was developed by a clinical psychologists, Dr. David Wechsler in 1939. It consists of 11 tests, out of which 6 are verbal and 5 are performance scale.

442. INTELLIGENCE QUOTIENT GIVEN BY WESCHLER: Classification of people on the basis of intelligence:

IQ RANGE	DESCRIPTIVE LEVEL
Above 130	Very superior
120 – 129	Superior
110 – 119	High average
90 – 109	Average
80 – 89	Low average
70 – 79	Borderline
Below 70	Mentally challenged/ Retarded

- 443. The term 'metacognition' was first coined by John Flavell, an American Developmental Psychologists, in 1979. The word 'meta' means 'beyond' and 'cognition' means 'thinking', so the term 'meta cognition' refers to 'beyond thinking'.
- 444. John Flavell: "meta cognition is a cognition about cognitive phenomenon, or basically thinking about thinking."
- 445. Kurt Lewin's Field Theory can be presented as B = f(P, E)
 Where, B= Behaviour, F= Field (Life space), P= Person, E= Environment.
- 446. The chief exponent of directive counseling was B G Williamson.
- 447. The chief exponent of non-directive counseling was Carl Rogers.
- 448. The combination of directive and non-directive counseling depending upon the situational factors is known as Eclectic Counseling. Its chief exponent was Bordin (Thorne).
- 449. Rational Emotive Behavioral Therapy (REBT) belongs to the behavioral school of therapy. REBT is the pioneering form of Cognitive Behavioral Therapy which was devised by Albert Ellis, an American Psychologist in 1950s . REBT is based on the ABCD technique, which was formed in 1950.
- 450. NCTE defined teacher education as "A program of an education, research and training of persons to teach from pre-primary to higher education level".
- 451. Teacher education consists of teaching skills, sound pedagogical theory and professional skills.
- 452. Triangular Basis of Teacher Education: Philosophical basis, sociological basis, psychological basis.
- 453. For foundation courses of teacher education three kinds of transactional approaches are followed- expository method, collaborative learning and experimental learning.

454. Experimental Learning theory is a learning theory developed by David A Kolb, who published his model in 1984. This cycle involves four stages- concrete learning, reflective learning, abstract conceptualization, active experimentation.

455.

EXPONENT	MODELS OF TEACHER EDUCATION
Schulman	Pedagogical Content Knowledge
Deng and Luke	Disciplinary conception of knowledge, practical conception of knowledge, experiential conception of knowledge.
Habermas	Technical knowledge, practical knowledge, emancipator knowledge.

- 456. Richard Schuman is an originator of Inquiry Training Model.
- 457. Different kinds of interaction in the Inquiry Training Model: Student to Material, Student to Peer, Student to Expert, Student to Media.
- 458. APEID stands for Asian Program of Educational Innovation for Development held in 1978.
- 459. Different modes of teacher education are seminar, workshop, panel discussion, symposium, conference, auto-instructional model etc.

460. Agencies and institutions of In-Service Teacher Education:

Agencies at district level	District Institute for Education and Training (DIET),
To	Sarva Shiksha Abh <mark>i</mark> yan (SSA0,
Agencies at state level	State Council for Educational Research and Training (SCERT), Rashtriya Madhyamic Shiksha Abhiyan (RMSA).
Agencies at national level	National Council of Educational Research and Training (NCERT), National Council of Teacher Education (NCTE), University Grants Commission (UGC).

- 461. Attributes of Professionalism : Specialized Knowledge, Competency, Honesty and Integrity, Accountability, Self-Regulation.
- 462. Teacher professionalism contains three characteristics: Competence, Performance, Conduct.
- 463. The Six Steps in the Process of Research according to Creswell: Identifying a Research Problem, Reviewing the Literature, Specifying a Purpose for Research, Collecting Data, Analyzing and Interpreting the Data, Reporting and Evaluating Research.
- 464. Analyzing and interpreting the data involves drawing conclusions about it; representing it in tables, figures, and pictures to summarize it; and explaining the conclusions in words to provide answers to the research questions.

465. Evaluating research involves assessing the quality of a study using standards advanced by individuals in education. Unfortunately, there are no ironclad standards for evaluating educational research in the academic research community; in school districts; or in local, state, or federal agencies. Still, we need some means of determining the quality of studies, especially published research or reports presented to practitioner audiences.

466. Research DESIGNS:

QUANTITATIVE	QUALITATIVE	COMBINED
DESIGNS	DESIGNS	DESIGNS
Experimental	Grounded theory	, Mixed methods,
Correlational, Survey	Ethnography	, Action research.
	Narrative.	

- 467. Co relational designs are procedures in quantitative research in which investigators measure the degree of association (or relation) between two or more variables using the statistical procedure of co relational analysis. This degree of association, expressed as a number, indicates whether the two variables are related or whether one can predict another
- 468. Survey designs are procedures in quantitative research in which the researcher administer a survey or questionnaire to a small group of people (called the sample) to identify trends in attitudes, opinions, behaviours, or characteristics of a large group of people (called the population).
- 469. Deductive reasoning is developed by Aristotle. It provides a means of testing the validity of any given conclusion or idea by proceeding from the known to the unknown, from general to specific statements.
- 470. The conclusions derived from deductive reasoning are true only if they are based upon true premises. To determine it Francis Bacon stressed the need for basing general conclusions upon specific facts gathered through direct observation. This is known as inductive reasoning.
- 471. Charles Darwin advocated the deductive-inductive method which is now recognised as scientific method.
- 472. Research is considered to be more structured and systematic process of carrying on a scientific method of analysis that is directed towards discovery and development of an original body of knowledge. Research is an objective, impartial, empirical and logical analysis and recording of controlled observations that may lead to the development of generalisations, principles or theories, resulting to some extent in prediction and control of events that may be consequences or causes of specific phenomena.
- 473. The word 'discipline' is derived from the Latin word 'Discipline' which means 'Teaching, Learning' and from French word 'Disciples' which means 'Pupil'. In the absolute sense, 'discipline' means 'instruction' a subject that is taught: a field of study. A discipline also means 'training' that corrects, moulds or perfects the mental faculties or moral character.

474. TYPES OF CORRELATIONS AND CORRESPONDING TYPES OF SCALES:

PEARSON'S PRODUCT MOMENT CORRELATION	Here variables are expressed in interval scale.
SPEARMAN'S RANK ORDER CORRELATION	Here variables are expressed in ordinal scale.
POINT BISERIAL	Here one variable is expressed in interval scale and other variable is expressed in nominal scale
TETRACHORIC CORRELATION	Here one variable is expressed in interval scale and other variable is expressed in nominal scale
TETRACHORIC CORRELATION	Here artificial dichotomy is used for both the variables and they are expressed in nominal scale
BISERIAL CORRELATION	Here one variable is expressed in interval scale and other variable is expressed in artificial dichotomy
PHI COEFFICIENT OF CORRELATION	Here both the variables are expressed in nominal scale and genuine dichotomy is used in both the variables

475. FORMS OF NATURALISM

Physical Naturalism	Physical Naturalism with its great stress on physical sciences has not got much importance. The simple reason is that education is a conscious human process of development and not mere a physical science process
Mechanical Naturalism	Mechanical Naturalism has given rise to modern Psychology of Behaviourism which emphasizes the importance of conditioned responses and the effective principle of Learning by Doing.
Biological Naturalism	Biological Naturalism is based upon the Darwinian Theory of Evolution. The advocates of this school uphold that heredity has a powerful influence on the nature and temperament of an individual human being. This illumines the principle of 'Man of Nature', according to which this influence goes on from generation to generation. This doctrine has put forward following principles of evolution: Adaptation to Environment, Struggle for Existence, Survival of the Fittest

476. NATURALISM IN EDUCATION

- A) **Discovery,** formulation, and application of natural laws to the educational process. This meaning was in the minds of the sense realists like Bacon, Ratke, and Comenius. The naturalistic theory of these writers failed because of faulty reasoning.
- B) **Education according to the natural laws of human development.** This approach has been accepted by G. Stenley Hall of the nineteenth century and by educators such as Plato, Quntilian, Ascham and Comenius.
- C) A return to the natural as opposed to all that is artificial.

It criticizes the training of children in the artificialities of life. Naturalism is against autocratic and intellectual pretensions. It rejects all authority that interferes with the spontaneous development of children. Rousseau has been the outstanding exponent of naturalism in education.

477. Naturalistic education believed in the gospel—"Child is the father of man".

478. CHARACTERISTICS OF NATURALISTIC EDUCATION:

- A) Back To Nature, B) Opposition To Bookish Knowledge, C) Progressive,
 D) Negative Education, E) Central Position Of Child, F) Freedom Of The Child, G)
 Emphasis On The Training Of Senses, H) Preparation for the Struggle of Existence
- 479. Naturalism stands for the democratic doctrine of "equality, liberty and fraternity", and consequently it has greatly furthered the advance of universality and democracy in education.
- 480. The Summer Hill School of Neel and Tagore's Vishwa Bharti are models of free schools which are developed on the naturalistic principles of self-learning and self-discipline.
- 481. Naturalism has firmly established the three great modern principles of teaching: A)Principle of Growth, B) Principle of Pupil-activity, and C) Principle of Individualization.

482. MERITS AND DEMERITS OF NATURALISM

MERITS	DEMERITS
Development of child psychology	One-sided and unsatisfying aims of
	education
Scientific study of society and sociology	Emphasis on present needs
Emphasis on experience-centred curriculum	Ignores books
Important contribution in the field of Undue emphasis on physical education	
methods of teaching	
Opposition to repression in the field of	More importance to scientific subjects in
discipline.	curriculum, Unlimited freedom of child, No
	importance to teacher, emphasize
	individuality development ignoring,

483. FUNDAMENTAL PRINCIPLES OF IDEALISM

- A) Spiritual world and Material world as the Whole World.
- B) Ideas are More Important than Objects
- C) Importance of Man Over Nature
- D) Faith in Spiritual Values
- E) Importance in Personality Development
- F) Full Support to the Principle of Unity in Diversity

484. IDEALISM AND AIMS OF EDUCATION

Self-realisation or exaltation of personality

To ensure spiritual development

To cultivate truth, beauty and goodness

Conservation, promotion and transmission of cultural heritage

Preparation for a holy life

Development of intelligence and rationality

485. The word *philosophy* comes from a combination of two Greek *words- "philos"* meaning "love" and "*sophi"* meaning "wisdom." Etymologically, philosophy means the love of wisdom. Plato in his "Republic" stated that "He who has a taste for every sort of knowledge and who is curious to learn and is never satisfied may be termed philosopher".

486. Metaphysics is the branch of philosophy that studies the ultimate nature of reality or existence. It asks questions such as 'What exists?' or 'What is real?'. The term metaphysics is derived from the Greek words "meta" means ("beyond", "upon" or "after") and physika, means ("physics"). Literally it refers 'those things after the physics.'

487. METAPHYSICAL QUESTIONS MAY BE DIVIDED INTO FOUR SUBSETS:

METAPHYSICAL ASPECT	CONCEPT	PRINCIPLE QUESTIONS
COSMOLOGICAL ASPECT	Cosmology consists in the study of theories about the origin, Nature, and development of the universe as an orderly system.	"how did the universe originate and develop? Did it come about by Accident or design? Does its existence have any purpose?"
THEOLOGICAL ASPECT	Theology is that part of religious theory That deals with conceptions of and about god.	"is there a god? If so, is there one or more than One? What are the attributes of god? If god is both all good and all powerful, why does evil Exist? If god exists, what is his relationship to human beings and the 'real' world of everyday Life?"
ANTHROPOLOGICAL ASPECT	Anthropology deals with the study of Human beings.	what is the relation between mind and body? Is mind more fundamental than body, with body depending on mind, or vice versa? Individuals free?
ONTOLOGICAL ASPECT	Ontology is the study of the nature of existence, or what it means for anything to exist.	"Is basic reality found in matter or physical energy or is it found in spirit or spiritual energy? "Is reality orderly and lawful in itself, or is it merely orderable by the human mind? Is it fixed and stable, or is change its central feature?

488. Epistemology is the branch of philosophy concerned with the nature and scope of knowledge and is also referred to as "theory of knowledge". Etymologically the word epistemology has been derived from the Greek words *episteme*, meaning "knowledge, understanding", and *logos*, meaning "study of". In other words we can say that Epistemology is the study of the nature, source, and validity of knowledge. It seeks to answer of the basic questions as "What is true?" and "How do we know?"

489. Axiology, which stems from two Grrek words-"Axios" means "value, worth" and "logos" means "reason/ theory/ symbol / science/study of". Hence, Axiology is the philosophical study of value and "value" originally meant the worth of something. Axiology asks the questions: What is a value? Where do values come from? How do we justify our values? What is the relationship between values and knowledge? etc. Axiology has two main branches- *ethics* and *aesthetics*. *Ethics* is the study of moral values and conduct. Aesthetics is the creation and appreciation of beauty, art.

490. Entomologically, the term "Education" has been derived from *Latin* words—"Educare", "Educere" and "Educatum". "Educare" means "to rise up or bring up or nourish". It indicates that the child is to be brought up or nourished keeping certain aims and ideals. The term "Educere" denotes "to lead out or to draw out". In this regard, education through its process draws out of the best what is inside the child". "Educatum" indicate the act of teaching or training. It throws light on the principles and practice of teaching. The term "Vidya" has originated from "Bid" meaning knowledge / to know/ acquire knowledge. Siksha denotes rules of pronunciation.

491. UNESCO has defined the goals of education during the last 50 years through various reports.

"Learning: The Treasure Within" published by UNESCO under the chairmanship of Jacques Delors in the year of 1996 which mention the four pillars of education for holistic development are: Learning to Know, Learning to Do, Learning to Be, Learning to Live Together.

492. Adams: "Education is the dynamic side of philosophy.

493.

CONCEPT	MEANING
Metaphysics	Study about the Reality.
Epistemology	Study about the Knowledge.
Axiology	Study about Value.
Cosmology	Study about origin, nature & development of Universe.
Theology	Deals with religion or God.
Anthropology	Study about human being.
Ontology	study of the nature of existence.
Empiricism	A theory which states that knowledge comes only or primarily from
	Sensory experience
Intuition	Ability to understand something instinctively, without the need for
	conscious
	Reasoning.
Ethics	Moral principles that deals with what is good or bad, right or wrong etc.
Aesthetics	Set of principles concerned with the nature and appreciation of beauty.
Logical	scientific knowledge about metaphysical language
positivism	

494.

CONCEPT	DERIVED FROM
IDEALISM	The Greek word ' <i>idein</i> ' meaning 'to see'.
PRAGMATISM	the Greek word 'pragma' which
	means activity or the work done. Others say
	: from the Greek word 'pragmatikos' which
Text with Technol	means practicability or utility.

495. MERITS AND DEMERITS OF IDEALISM:

MERITS	DEMERITS
Promotes universal education.	It is an abstract & vague doctrine. It
	avoids the realities.
Highest values namely, Truth, Beauty	More emphasis on thinking and mental
and Goodness.	activities. This increases the importance of
	Intellectualism unnecessarily.
The teacher is assigned a very important role.	Gives more importance to teacher in relation
	to the child.
Leads to the development of the 'self' of an	An idealistic method of teaching emphasizes
Individual.	cramming and rote memory. Emphasis on
	spiritual development of the child while
	ignores development in science.

496. PRINCIPLES OF PRAGMATISM

Truth is ever changing
Emphasis on social and democratic value
Opposition to fixed ideals and values
Emphasis on the principle of utility
Importance of man power
Opposition to social customs and traditions
Faith in pluralism
Faith in flexibility

497. AIMS OF EDUCATION OF PRAGMATISM

To reform and reconstruct the society
To develop democratic values and ideals in the child
To provide equal educational opportunities to all citizens
To instil habit of experimentation in the children
To remove social evils and make the society a good place for living
To make child self reliant

498. MERITS AND DEMERITS OF PRAGMATISM

MERITS	DEMERITS
Construction of project method	Materialistic bias.
Importance in child	Absence of any aim of education.
Emphasis on activity ('Learning by doing')	Excessive emphasis upon individual difference
Social and democratic education	Limitations of learning through doing.
Progressive and optimistic attitude	Pragmatists want to improve the world by experimentation. They reject the experience of others and believed in self experience of man. Pragmatists advocated full freedom for the child who may spoil his career because of his immaturity and lack of experience.

499. EVALUATION OF NATURALISM:

One sided and unsatisfying aims of education:

The child will become unsocial with no feeling of social service or social good. He will develop into a pure animal tendencies are to be socialized through education, and then social environment is greatly essential.

Emphasis on present needs:

Naturalism lays stress on the solution of present needs and problems of an individual. It advocates no concern for spiritual values and the remote future.

Ignores Books:

Naturalism emphasizes that education of the child should be based on his activities and life experiences. But only activities and experiences cannot ensure the total development of the child's

personality.

More important to scientific subjects in curriculum:

No importance of teacher:

500. MERITS AND DEMERITS OF NATURALISM:

MERITS	DEMERITS
Development of child psychology.	Children's are given over freedom and
	giving most importance to exercises.
Scientific study of society and sociology.	No importance on teachers.
Emphasis on experiences-centred	More emphasis on present needs of the
curriculum.	children's.
Importance in the field of methods of	Ign <mark>or</mark> es Books.
teaching.	

501. MAIN POINTS TO REMENBER IN REALISM:

According to realism animate and inanimate substances make an organism.

Emphasis on observation and experimentation. Realism considers states as an institution for his welfare and happiness. Therefore it is obligatory for the state to make arrangements for the means of happiness and convenience of the citizens.

Developing and Training of senses

Imparting vocational education

Due importance to science and technology

Realism favours impressionistic and emancipationsitic type of discipline.

Realism lays emphasis on objectivity.

Realism ignores the importance of emotions, imaginations etc. which are also equally important in human life.

No place for intuition and meditation

No faith in eternal values and high ideals of life

502.

SCHOOLS OF PHILOSOPHY	METHODS OF TEACHING
IDEALISM	Socrates used Question-Answer Method, Plato emphasized Discourse Method, Aristotle advocate Inductive-Deductive method, Herbert advocated Instruction Method. Butler has rightly remarked "Idealists consider themselves as creators and determines of methods not devotees of some one method".
NATURALISM	Discarding the old system as stagnant Naturalism prescribed □ Leaning by doing □ Learning by experience □ Learning by play as the basis of teaching. To the naturalists book reading is unpsychological. The child engages himself in activities and experiences. Observation method, Experimental method, Play way method, Heuristic method, Dalton method, Montessori method
PRAGMATISM	Learning by doing, Collective approach, Integrated approach, Individual approach, Purposive process of learning,
EXISTENTIALISM	traditional lecture-recite-assign-test method, historic-scholastic method, induction, Socratic 'Problem Method', They reject the group method for danger of losing unique individualism and free choice.
REALISM	more emphasis to sense training, Milton emphasized the importance of travelling in education., Locke emphasized the importance of observation and experimentation, Inductive – Deductive method, 'Things rather than the words' or 'First objects and then their exposition' are their watch words. Education should be given through co-curricular activities.