

Mains Sectional Test 02 Model Answers

Essay- Healthcare in India: challenges and solutions

- Good health is a fundamental and basic essential need, of all human beings
- 3rd of the 17 SDGs- good health for all
- Indian Constitution- good health is an implicit right under A. 21 (Right to life)
- What happens in absence of good health (in short)
- India aspires to become a developed nation: human capital is an important criteria
- India is on the cusp of a demographic dividend
- Healthcare becomes important as, only a healthy person can achieve his or her full potential
- However is the Indian healthcare system itself in a healthy state?
- Data set:
 - Burden of diseases- tuberculosis, cancer, diabetes, stunting
 - National Sample Survey (NSS) found that over 80% of Indians do not have health insurance cover and that a majority of people in the rural areas utilize private sector health services
 - Budgetary allocation on health = 1.2% of GDP
 - India has 20.6 health workers per 10,000 people, which is less than the minimum threshold set by the WHO (44.5).
 - Life expectancy: ~68.3 (M = 66.9; F = 69.9) [in 1951 it was just 32%]
 - Only 65.3% of children under 5yr are fully immunised.
 - Nutrition: Under nourished population - 14.8%
 - 58% of children under 5 years of age are anaemic. 53% of women aged 15-49 are anaemic.
 - India is home to more than one-third of the world's stunted children.
 - 13% of men & 11% of women are underweight in India. (Avg = 12%)
 - The World Bank's "Nutrition at a Glance" research report states that India loses over \$12 billion in GDP to vitamin and mineral deficiencies.
 - The NFHS-4 has shown that over the past decade, the proportion of underweight children fell by nearly 7% to 36%, while the proportion of stunted children (those with low height-for-age, a measure of chronic undernourishment) declined by nearly 10% to 38%. [Although discouraging, can be presented as encouraging]
 - Under weight children - 36%
 - Stunted children - 38%
 - Maternal & infant mortality : Women in India gain only about 7 kilograms during pregnancy, which is substantially less than the 12.5-18 kg gain that the WHO recommends. [ES 2015-16]
 - 42.2% of Indian women are underweight at the beginning of pregnancy. [ES 2015-16]
 - Every year around 44,000 women in India die due to pregnancy related complications and approximately 6.6 lakh infants die within the first 28 days of life.

- Janani Suraksha Yojana: The Janani Suraksha Yojana has led to a sharp increase in institutional delivery (from 39% in 2005-06 to 79% in 2015-16) and near doubling of children breastfed within one hour of birth in the last 10 years.
- Breastfeeding within an hour of birth could prevent 20% of newborn deaths.
- Initial breastfeeding has been nearly doubled in the last decade i.e. from 23.4% in NFHS-3 (2005-06) to 41.6 % in NFHS-4 (2015-16).
- Obesity: 21% of women and 19% of men are overweight or obese in India. (NFHS-4) (Avg = 20%)
- The number of obese people has almost doubled in the country in the last decade. (NFHS-4)
- Obesity affects urban populations more than its rural counterpart.(NFHS-4)
- India has the second highest number of obese children in the world after China.
- Health Insurance : Only less than 30% of households are covered by health insurance.
- India's health insurance penetration rate (ratio of premium underwritten in a particular year to the GDP) is 3.4%, far below the global average of 6.2%.
- At least 70% of total expenditure of a patient is out of pocket expenditure. (In China out of pocket expenditure is less than 35%.)
- Sanitation: A World Bank study had estimated that costs due to poor sanitation facilities were to the tune of more than 6% of India's gross domestic product in 2006.
- India accounts for 15% of the global mental, neurological and substance use disorders in the world (30% of India's population falls within this group).
- More than 40% of women do not have access to hygienic methods of protection during their menstrual period.
- (NFHS-4) : Non-communicable diseases such as diabetes, cancer and heart disease, are collectively responsible for over 70% of all deaths worldwide (WHO)
- State of healthcare:
 - Rural vs urban areas
 - Public vs private sector
- Nature of Healthcare as a sector:

	Problems	Solutions
Accessibility	<ul style="list-style-type: none">● Penetration in rural areas	<ul style="list-style-type: none">● Open govt hospitals and provide incentives to the private sector
Affordability	<ul style="list-style-type: none">● Lack of purchasing power by the majority of the public	<ul style="list-style-type: none">● Awareness about health insurance● Health coverage for the public- UK's NHS plan

Quality	<ul style="list-style-type: none">● India spends less than 1.5% of its GDP on health which is	<ul style="list-style-type: none">● Increased spending● More doctors
	<p>lower than many of the Sub-Saharan countries with GDP much below India</p> <ul style="list-style-type: none">● Doctor to patient ratio in India is below the minimum benchmark given by WHO of 1:1000 (can also be part of Accessibility)	

- Interrelate the above 2 points:
 - Accessibility is higher in urban areas compared to rural
 - Private sector does not find it viable to penetrate into the rural areas, given their low purchasing power
 - Whereas the public sector lacks resources, efficiency and enterprise associated with private sector
- Regulatory bodies:
 - Medical council of India- responsible for overall supervision and regulation of medical education in India
 - Problems- allegations of corruption, nepotism, fraud etc
 - Solution- SC had to intervene and ask the government for complete overhaul of MCI (National Medical Commission Act, 2019)
- Implications:
 - Mostly affects the poor or the marginalized or the 'have-nots' section of the society more as those who can afford to spend on the expensive private health care and live in urban areas or nearby, do have access to good healthcare facilities
 - Overall healthcare of the nation is affected- it is not an isolated problem that will be restricted to specific areas
- Solutions:
 - In fact medical tourism is an upcoming sector of the Indian economy as costs of the private Indian healthcare system are relatively lower when compared with the first world nations
 - Government initiatives:
 - mass immunization and vaccination programs and use of other appropriate treatments
 - Smallpox was eliminated in 2014 and India achieved polio-free status in 2014. Maternal and neonatal tetanus was eliminated by August 2015
 - Mission Indradhanush aims to increase the immunization coverage to 90% in next few years
 - Tax deductions for research and development in the pharmaceutical industry and protective regime of favorable Intellectual Property (IP) laws
 - Rashtriya Swasthya Bima Yojana (RSBY) that provides for cashless health insurance at authorized private hospitals for below poverty line families and unorganized sector
 - Ayushman Bharat

- India's performance in Covid-19 pandemic has been rather effective- swift government action, hardened immunity, demographic dividend, smooth supply of vaccines (to other countries as well)
- A lot has been achieved, but we still have a long way to go though, primarily by increasing the standard of living, which is intertwined with that of public health.

Paper-1

Discuss the impact of globalization on the Indian society.

- Define- integration of economies + multifaceted aspect
Globalization is the word used to describe the growing interdependence of the world's economies, cultures, and populations, brought about by cross-border trade in goods and services, technology, and flows of investment, people, and information
- Aim: to create a borderless world
- India underwent LPG reforms in the 1990s. Effects of globalization:
 - growth of foreign investment in the field of corporate, retail and the scientific sector
 - tremendous impact on the social, monetary, cultural and political area
 - improvements in transportation and information technology
- With the improved global synergies comes the growth of global trade, doctrines and culture
- Impact:
 - International trade
 - international investment, trade and strategic alliances for product development, production, sourcing and marketing
 - sharing of internationally accepted labour standards
 - free, convertible currencies, open access to banking
 - Technology and communication
 - foreign companies brought in highly advanced technology with them and this made the Indian Industry more technologically advanced
 - even in the rural areas in India, satellite television has a grown up market
 - Corporate world
 - increases competitiveness
 - company management and governments have to embrace strategies designed to increase labour effectiveness with reference to productivity, quality and innovation
 - First World economies are progressively dependent on the natural and human resources of the developing nation
 - Social and cultural dimensions
 - bollywood movies are also distributed and accepted at international level
 - high end international brands are penetrating into the Indian market
 - Education-

- literacy rate become high and Foreign Universities are collaborating with different Indian Universities
 - E-learning, Flexible learning, Distance Education Programs and Overseas training
 - Women have gained certain opportunities for job options and to recognize women's rights as a part of human rights
 - In political field, globalization helps to eradicate poverty, malnutrition, illiteracy, ill-health and fighting cross border terrorism and global terrorism
- Arguments: for and against

For	Against
<ul style="list-style-type: none">• Greater access to global markets• Advanced technology• Better future prospects for large industries of developing countries	<ul style="list-style-type: none">• Benefits accrue more to developed countries (wrt expansion)• Welfare of developing countries is compromised• Increase in economic disparities

- Advantages of globalization in India:
 - Increase in employment: SEZ, Export Processing Zones (EPZ) Centre, cheap labor in our country is an attractive force
 - Increase in compensation: foreign companies offer skill and knowledge

Higher standard of living • Data set:

- Agriculture exports account for about 13 to 18% of total annual export of the country.
- In 2000-01, agricultural products valued at more than US\$6 million were exported from the country of which 23% was contributed to the marine products alone.
- Marine products account for over one fifth of the total agricultural exports.
- Cereals (mostly basmati rice and non-basmati rice), oil seeds, tea and coffee are the other prominent products each of which accounts for nearly 5 to 10% of the countries' total agricultural exports.

Paper-2

Elaborate on the importance of maritime domain for India and the role of Quad in it.

- Backdrop of quad- China's unilateral claim on the Nine-Dash Line in the South China Sea; rapid warship building its first overseas base in Djibouti; and its surface and subsurface activities in Indian Ocean beyond the Malacca Straits have alarmed regional countries like India and Japan about increasing Chinese ambition. First, QUAD failed to rise due to unlike ideas of sovereignty with common adversaries. Later, to counter China's hegemony, the re-birth of QUAD took place in 2017 for balancing single dominance of China in the asiatic region. Started with the basic interest of all 4 nations like;
 1. LEMOA

2. CISMOA

3. India-japan nuclear deal

4. Inclusion of Japan into Malabar, Pitch Blak & Talisman Saber exercises, 5. Inclusion of Australia

In this context, the idea of Quad was first mooted by Japanese Prime Minister Shinzo Abe in 2007. Finally, in November 2017, India, Japan, Australia and USA gave shape to this idea.

- Sharing perspectives on security threats ranging from maritime challenges to counter terrorism and piracy issues and increased cooperation on infrastructure and connectivity.
- Engaging with Quad may serve many geo-strategic goals of India-
 - countering China's aggressive on border with India's assertives in the maritime domain and,
 - emerge as a net security provider in the region
 - Increase the pool of India in defence sector,
 - Continental sphere for geo-political aggravation,
 - Boost to Act East Policy
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- Recently India had set-up IFC-IOR i.e., Information Fusion Centre-Indian Ocean Region with the objective of sharing information related to maritime data and incident response to maritime security with collaborative approach.
- Some centers are bridged to provide effective communication between countries are:
 1. VRMTC-Virtual Regional Maritime Traffic Center,
 2. MSCHOA-Maritime Security Center Horn of Africa,
 3. ReCAAP-Regional Cooperation Agreement on Combating Piracy and Armed Robbery,
 4. IFC-SG-Information Fusion Center Singapore,
 5. IMB PRC-International Maritime Bureau Piracy Reporting Center
- Issues Related to Quad
 - Undefined Vision of the group.
 - The entire focus on the Indo-Pacific makes the Quad a maritime, and only that.
 - India's Aversion to Treaty Alliance System slows down progress.
 - China's territorial claims(9 dash line)
 - Economic hegemony of China(RCEP influence)
 - Maritime dominance,
 - Trustworthiness of US,
 - Non-alignment,
 - Internal economic challenges,
 - Political instability,
 - Minilateralism,
 - China's QUAD version is QCCM i.e., Quadrilateral Cooperation and Coordination Mechanism with the following 3+1 countries - Afghanistan, Pakistan, Tajikistan + Nepal. It came in 2016 due to which in 2017 India, Japan, US & Australia gave re-birth to the original QUAD to counter China's move.
 - Russia's reluctance towards the role of QUAD.

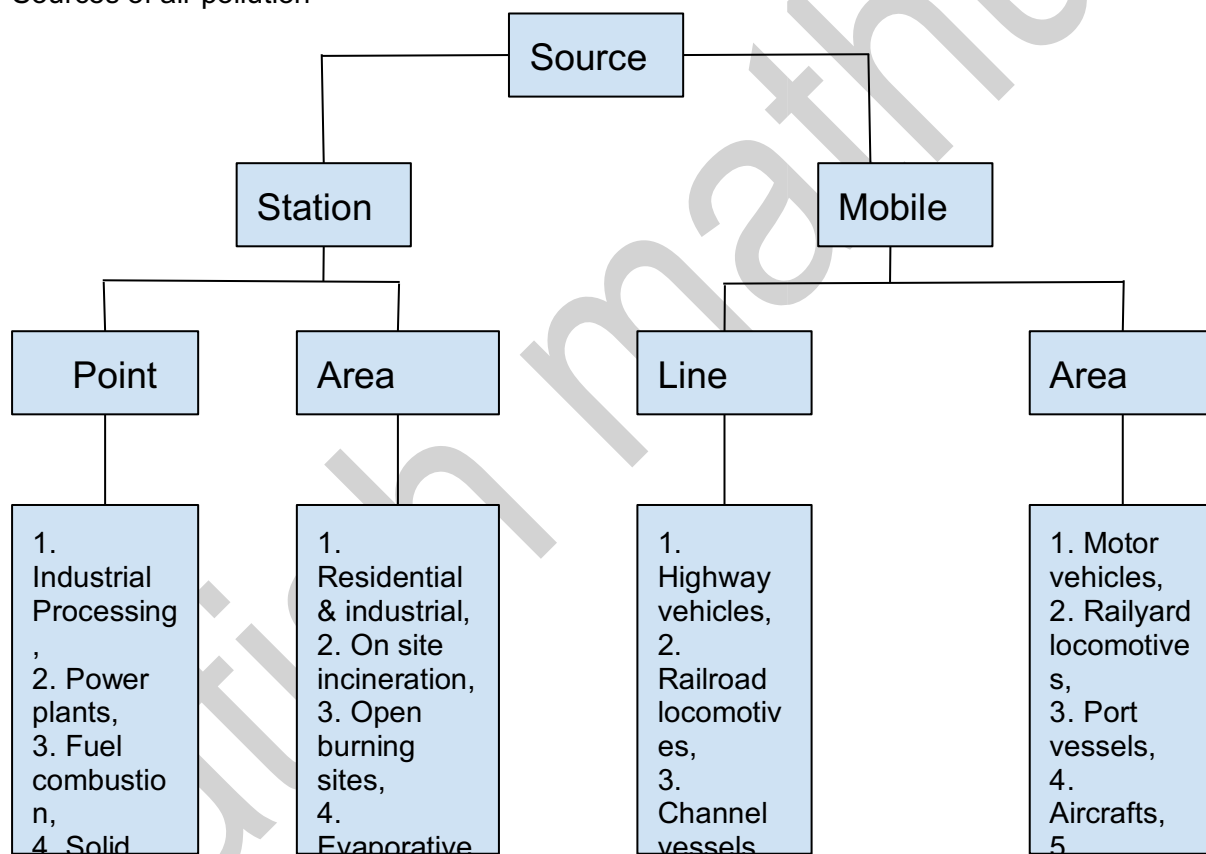
Paper-3

Why despite efforts at various levels, Delhi is ranked as the most polluted capital in the world? Comment.

“A nation that destroys its soils destroys itself. Forests are the lungs of our land, purifying the air and giving fresh strength to our people”---- Franklin Roosevelt

Introduction- Air pollution is the presence in the air of substances originating from the activities of man in sufficient concentrations and durations to interfere with the health, comfort, safety of property. The science of air pollution is complex and evolving, becoming informed is the key to citizens becoming effective players in preventing it. No matter how diverse the pollutants are, the fight against air pollution starts with the same step- arming yourself first with knowledge.

Sources of air pollution-



Major Air Pollutants- ➤

- Carbon-monoxide
- Ozone
- Nitrogen dioxide
- Sulphur dioxide
- Particulate matter
- Lead

Effect of Air Pollution on Animals, Plants, Humans and Property-

- Accumulation of airborne contaminants on the vegetation and subsequent poisoning of animals when they consume the contaminated vegetation,
- Reduction in yield from cattle,
- Symptoms could include lack of appetite, rapid loss in weight, lameness, diarrhoea and subsequently death.
- Following are effects on plants:
 - Necrosis,
 - Chlorosis,
 - Abscission, ○ Epinasty.

Primary Pollutants	Secondary Pollutants
These are emitted from specific sources. E.g., Carbon monoxide, Nitrogen dioxide.	These are formed in the atmosphere as a result of the interaction between the primary air pollutants. E.g., Ozone and PAN

Smog	Photochemical Smog
<ul style="list-style-type: none">➤ It is a type of large-scale outdoor pollution.➤ Caused by reactions between pollutants derived from different sources.➤ Cities are often centers for smog during the winters as it is simply a combination of Smoke+fog.➤ Effects include: short term-<ul style="list-style-type: none">○ Irritation to eyes, nose and throat,○ Irritation to upper respiratory tract,○ Causes bronchitis and pneumonia,○ Headache, nausea, allergic reactions.➤ Long term-<ul style="list-style-type: none">○ Chronic respiratory diseases,○ Lung cancer,○ Heart diseases,○ Damages brain, nerves, liver	<ul style="list-style-type: none">➤ It is a mixture of PM, nitrogen oxides, ozone, aldehydes, PAN, unreacted hydrocarbons.➤ Appear brown due to presence of nitrogen dioxide,➤ Following are catalyst to it-<ul style="list-style-type: none">○ Sunlight,○ Hydrocarbons, ○ Nitrogen dioxide, ○ PM.➤ It causes-<ul style="list-style-type: none">○ Headache, eyes, nose and throat irritation,○ Lung functioning impairment○ Coughing and sneezing,○ Deteriorate fabrics and rubber,○ Damages plants which leads to the loss of crops.
and kidney,	

<ul style="list-style-type: none">○ Growth in children retarded,○ Aggravate medical conditions in elderly.	
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Control technologies- It depends upon the nature of pollutant, PM, fine particulate, gas, industrial emission, etc. The most common control technologies employed for particulates include following:

- Settling chamber,
- Cyclone separator,
- Fabric filter,
- electrostatic discharge/precipitator,
- Wet collector

Govt initiatives to tackle air pollution- ➤ Green crackers,

- Odd-even rule,
- Graded response action plan- BSVI
- WAYU-Wind Augmenting Purifying Unit,
- Indian Air Quality Interactive Repository (indAIR),
- mHaryalli,
- Clean Air Cities Declaration.

Paper-4

What is 'emotional intelligence' and how can it be developed in people? How does it help an individual in making ethical decisions?

Definition- Emotional intelligence is defined as the aggregate of the individual to deal effectively with his environment.

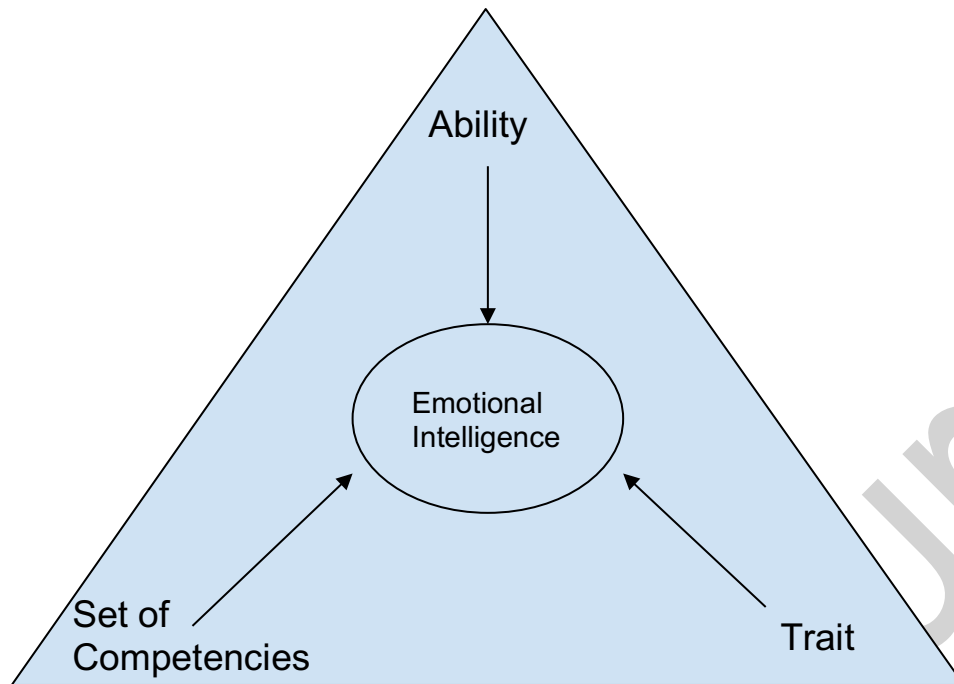
Two factors predominantly determine the intelligent behaviour i.e.,

1. Cognitive,
- 2.

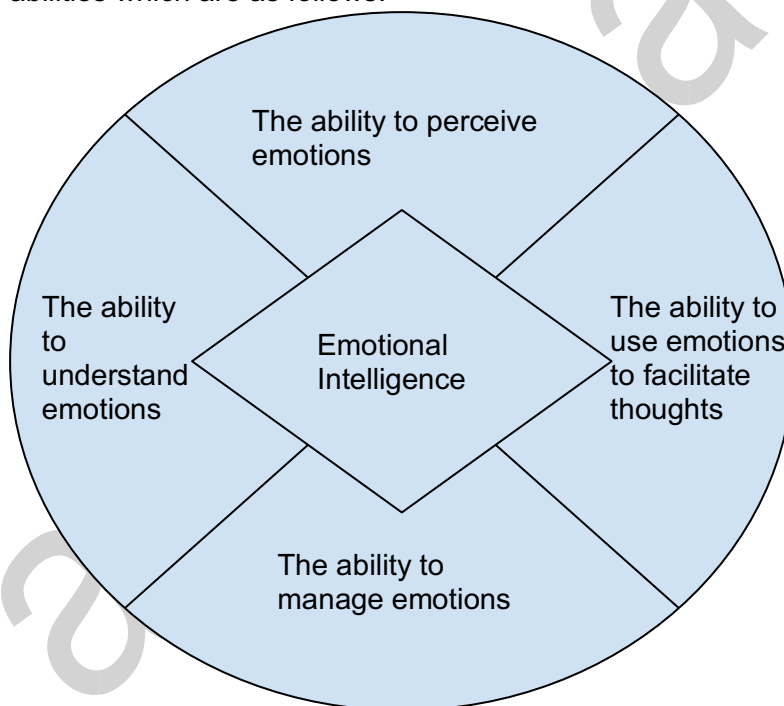
Non-cognitive.

Emotional Intelligence has three dimensions:

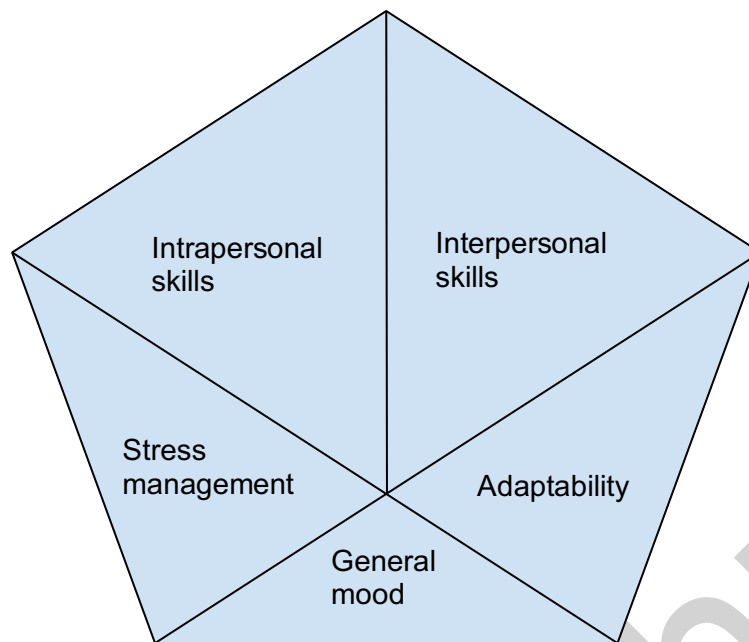
1. Ability
2. Set of Competencies
3. Trait



1. Ability- Emotional Intelligence is a composite of 4 distinct emotional reasoning abilities which are as follows:



2. Set of Competencies- it is defined as characteristic of the person that leads to or causes effective or superior performance which provides the potential for one to learn and develop emotional intelligence competencies that result in leadership effectiveness. Following has 5 main components:



3. Personality Trait as Emotional Intelligence- it is predispositions of behaviour and thought which stabilizes over time and differs from individuals. Further which comprises of :
- Self-esteem,
 - Expression,
 - Social awareness.

Emotional Intelligence has 4 main branches:

1. Regulating emotions: It is the ability to regulate emotions in oneself and others.
2. Facilitating emotions: It is the ability to use information that explains felt emotions in order to prioritise and direct thinking.
3. Perceiving emotions: It is the ability to identify emotions in the self and others.
4. Understanding emotions: It is the ability to understand the relationship between emotions and their transition from one state to another.

Utilities of Emotional Intelligence-

Personal Competence	Social Competence
<ul style="list-style-type: none"> ➤ Self Awareness <ul style="list-style-type: none"> ○ Emotional awareness ○ Accurate awareness ○ Self-confidence ➤ Self regulation <ul style="list-style-type: none"> ○ Self-control ○ Trustworthiness ○ Conscientiousness ○ Adaptability 	<ul style="list-style-type: none"> ➤ Social Awareness <ul style="list-style-type: none"> ○ Empathy ○ Service orientation ○ Developing others ○ Leveraging diversity ○ Political awareness ➤ Social Skills <ul style="list-style-type: none"> ○ Influence ○ Communication ○ Leadership

○ Innovativeness	
<ul style="list-style-type: none">➤ Self-motivation<ul style="list-style-type: none">○ Achievement drive○ Commitment○ Initiative○ Optimism	<ul style="list-style-type: none">○ Change catalyst○ Conflict management○ Building bonds○ Collaboration and cooperation Team○ capabilities

Ways through which an individual can be ethical in decision are:

- To respond to situations flexibly,
- Keep disruptive emotions in check,
- Take advantage of the right time and right place,
- Sense the effect of emotions on others,
- To recognise the importance of different elements of a situation,
- Deploy their strengths and compensate for their weaknesses,
- To draw distinctions between situations despite similarities that may link them,
- Listen to other peoples' emotions and empathise with them,
- Combining old ways to find out new passages,
- To develop ideas those are novel,
- Admit their own mistakes and learn from them,
- Build trust through integrity and reliability