CONTINUED…

THE FUTURE OF MILKY WAY:

- STUDIES SUGGEST THAT NEAREST GALAXY CALLED ANDROMEDA IS APPROACHING THE MILKY WAY GALAXY AT A SPEED OF 100 - 140 KM/SEC
- AT THIS SPEED, THE TWO GALAXIES WOULD COLLIDE IN THE COMING 3-4 BILLION YEARS, MERGING TO FORM A NEW ELLIPTICAL GALAXY

THE MILKY WAY

SOME BULLET POINTS:

- It's a spiral galaxy
- It has a diameter of 100,000 to 180,000 light years
- Contains about 100 – 400 billion stars making it a giant galaxy
- It is home to our solar system
- The solar system is stationed in the orion – cygnus arm of the galaxy
- The distance from solar system to the center of the milky way galaxy (galactic disc) is roughly 27,200 light years

THE IRREGULAR GALAXIES

- An irregular galaxy is the catchall name given to any galaxy that does not neatly fit into one of the categories of the Hubble classification scheme.
- Structures do not align neatly
- Can not be readily classified as spiral, elliptical or lenticular
- Examples include The Small Megallanic Clouds & The Large Megallanic Clouds

THE LENTICULAR GALAXY

- An intermediate form which has the properties of both, elliptical as well as spiral galaxy

THE ELLIPTICAL GALAXIES

- They have an elliptical profile, giving them an ellipsoidal appearance regardless of the angle
- Examples include Galaxy M49 & Galaxy M59

THE SPIRAL GALAXIES

- They are flat, rotating, spiral structures
- Examples include Milky Way & Andromeda

CLASSIFICATION OF GALAXIES

According to the Hubble Tuning Fork diagram, the types of galaxies are as follow:

- Spiral galaxies
- Elliptical galaxies
- Lenticular galaxies

And more recently another type called the Irregular galaxies have also been added to the classification

GALAXY

- A galaxy is a gravitationally bound system containing black hole, stars, stellar remnants, interstellar gas and dust (nebulae), planets, dwarf planets, small solar system bodies, satellites etc. are all contained with in a galaxy
- There are billions of galaxies within our universe

ENVIRONMENTAL SCIENCE

- Environment:- The Atmosphere (Layered Structure and Composition), Hydrosphere (Water Cycle, Major Water Compartments), Biosphere (Major Biomes) and Lithosphere (Minerals and Rocks, Rock Types, Plate Tectonics).
- Atmospheric Pollution:- Types, Sources, Causes and effects of major air pollutants (COx, Particulate Matter, NOx, SOx, Tropospheric Ozone, Volatile Organic Compounds, Dioxins). Regional and Global air pollution issues (Acid-rain, Ozone Depletion, Greenhouse Effect and Global Warming). International agreements on air pollution control (Montreal Protocol and Kyoto Protocol).
- Water Pollution:- Types, sources, causes and effects of major water pollutants (Synthetic Organic Chemicals, Oxygen Demanding Wastes, Plant Nutrients, Thermal Pollution, Infectious Agents, Sediments, Radioactivity, Heavy Metals and Acids). Drinking water quality and standards.
- Land Pollution:- Solid waste management and disposal.
- Role of Remote Sensing and GIS in Environmental Science.
- Population Planning

BIOLOGICAL SCIENCES

- The Basis of Life :- Cell Structures and Functions (Subcellular Organelles such as Nucleus, Mitochondria and Ribosomes).
- Biomolecules:- Proteins, Lipids, Carbohydrates and Enzymes.
- Plant and Animal Kingdom:- A brief survey of plant and animal kingdom to pinpoint similarities and diversities in nature.
- A Brief Account of Human Physiology.
- Common Diseases and Epidemics:- Polio, Diarrhea, Malaria, Hepatitis, Dengue their Causes and Prevention.
- New Model Concept of Producing BIO Fuel Method

PHYSICAL SCIENCES

- Constituents and Structure:- Universe, Galaxy, Light Year, Solar System, Sun, Earth, Astronomical System of Units.
- Process of Nature:- Solar and Lunar Eclipses, Rotation and Revolution, Weather Variables (Global Temperature, Pressure, Circulation, Precipitation, Humidity) and Weather Variations.
- Natural Hazards and Disasters:- Earth Quake, Volcanic Eruption, Tsunami, Floods, Avalanche, Travelling Cyclone (Tropical Cyclone, Middle Latitude Cyclone and Tornadoes), Drought, Wildfire, Urban Fire. Disaster Risk Management.
- Energy Resources:- Sources of Energy (Renewable i.e. LED Energy, Solar Energy, Wind Energy and Non-Renewable Energy conservation and its sustainable use.
- Atomic Structure, Chemical Bonding, Electromagnetic Radiations.
- Modern Materials/Chemicals:- Ceramics, Plastics, Semiconductors. Antibiotics, Vaccines, Fertilizers, Pesticides.

SYLLABUS

- Physical Sciences
- Biological Sciences
- Food Science
- Information Technology

NOW LETS DISCUSS EACH ONE OF THEM IN DETAIL

SCORE TREND

- For most general science and ability is an average scoring paper
- However, for some, it might be a jackpot. You just need to know the right tricks and techniques
- Understanding the question correctly
- Writing to the point, avoiding unnecessarily long answers
- Smartly handling the question (question attempting technique)

QUESTION ATTEMPTING TECHNIQUE

- You must try to memorize everything in bullets form
- Headings & rubrics
- Flow charts
- Wrapping it up with current information

INTRODUCTION

- General science and ability is one of the compulsory subjects
- It is majorly divided in to two portions (General Science & General Ability)
- The gamut of General Science includes physical, biological, environmental and food sciences and some topics from information technology
- The General Ability includes mathematics & logical reasoning