EnglishDescriptive

Q.1)
Writeanessayonanyoneofthefollowingtopicsinabout600Words.(40Marks)

- ***"Peacecannot be kept by force, it canonly be achieved by understanding" –Elaborate.***
- ***RoleoffemaleentrepreneursinIndia***
- ***AdvantagesanddisadvantagesofrenewableenergyHowtheOSOWOGinitiativewillhelpineliminatingthese disadvantages.***
- ***Indiahasbecomeamedicaldestinationfortheworld.***

Q.2)
Writeaprecisfromthegivenparagraphinabout180words.(30 Marks)

As controversies swirl about funding, resources, motives and methods for spaceflight, it is well to consider the consequences of ex- ploring space – and of choosing not to do so. Earlier essayshave already analyzed in broad termssome of the potential consequences ofnotexploring,especiallythelackofcreativitythataninward-lookingsocietymaybring,byanalogywithMingChina.Othershave pointed out that theAge of Discovery was only a mixed blessing, especially when it came to culture contact.

Theconsequencesofspaceexplorationasalreadyundertakenstandbeforeusforexamination.Theyoccuronmanylevels:commer- cial applications, education and inspiration to youth, applications satellites, scientific benefits, and philosophical implications.All areopentoanalysis,andasweapproachthefiftiethanniversaryoftheAgeofSpace,weshouldexamine,withhistoricalobjectivity, precisely what the impact of the Age of Space has been.
OnefeatureunlikelytobeparalleledwiththeAgeofDiscovery,atleastinthenearfuture,iscontactwithothercultures. Shipboard observersoftencarefullynotedexoticplantsandanimalsseenduringthecourseoftheirvoyages,andtheultimateexperiencewas contact with exotic humans.

In theAge of Space, the search for microbial life has been a main driver of space exploration, in particular with regard to Mars, but alsonowextendedtomoreexoticenvironmentslikeJovianmoonEuropa.Withthatsearchforlifeonnewworlds,planetarypro- tection protocols have been put in place, both for our own planet and others.

Contactwithintelligentextraterrestrialsbeyondthesolarsystemwillremainamoreremotepossibility,andwhenandifithappenswe shouldlearn from the historyof culture contactson Earth.
ButtheimmediateimpactoftheSpaceAgeisfarmorediversethantheultimatediscoveryoflifeinspace.Inhernewbook"Rocket Dreams: How the SpaceAge Shaped Our Vision of a World Beyond", Marina Benjamin argues that space exploration has shaped our worldviews in more ways than one. "The impact of seeing the Earth from space focused our energies on the home planet in unprecedented ways, dramatically affecting our relationship to the natural world and our appreciation of the greater community of mankind, and prompting a revolution in our understanding of the Earth as a living system," she wrote.

Benjamin thinks it is no coincidence that the first Earth Day onApril 20, 1970, occurred in the midst of theApollo program; or that oneoftheastronautsdevelopedanewschoolofspiritualism;orthatpeople"shouldbedrawntoaninnovativemodelforthedomestic economy sprung free from theAmerican space program by NASAadministrator James Webb." Exploration shapes worldviews and changes cultures in unexpected ways, and so does lack of exploration.

Spacehashadmoretangibleimpactsonsociety.Totakeonlyone,imaginewherewewouldbewithoutapplicationssatellites.Wenow take for granted photographs of weather and Earth resources data from space, as well as navigation and worldwide communications made possible by satellite.

Along with human and robotic missions, the late twentieth century will be remembered collectively asthe time when humansnotonly saw the Earth as a fragile planet against the backdrop of space, but also utilized near-Earth space to study the planet's resources, to provideessentialinformationaboutweather,andtoprovidemeansfornavigationthatwasbothlife-savingandhadenormouseconom- icimplications.Worldwidesatellitecommunicationsbroughttheworldclosertogether,afactordifficulttoestimatefromacost-benefit analysis. Names like Landsat, GOES (Geostationary Operational Environmental Satellites), Intelsat and Global Positioning System may not be household words, but they affect humanity in significant ways not always appreciated.

Importantastheyare,applicationssatellitespaleinsignificancetowhatspacemayrepresentforthefutureofhumanity.Whilesome

arguethatroboticspacecraftsarecheaperandlessriskythanhumanspaceflights,itismybeliefthathumanswillnevertheless follow roboticreconnaissanceasnightfollowsday.

HumanswillnotbecontentwithaSpaceOdysseycarriedoutbyroboticsurrogates,anymorethantheothergreatvoyagesofhuman history.Robotsextendthehumansenses,butwillnotreplacethehumanmindintheforeseeablefuture,evenwithadvancesinartificialintelligence.HALinArthur C.Clarke'sfamousnovelandmoviewasnotassmartashethought,andwillnotbeforalongtime. As President Bush said while announcing his new initiative in January 2004, humans will spread through the solar system, fulfilling the vision of what British philosopher Olaf Stapledon 55 years ago called "interplanetary man."
Eventually humans will spread into the cosmos at large. One cannot set a timeline, but by 3001 "interstellar humanity" will likely follow.We do not know what surprises and challenges we will find. But they will be there and humans will revel in them.That is the natureofhumanswiththeirinbuiltcuriosityandpenchantforexploration,onemightsaytheverydefinitionofwhatitistobehuman.

Historians and social scientists have analyzed this kind of argument, and not all agree that the utopian ideal of spreading humanity to outer space is a valid reason for going, or that utopia is what we will build when we get there. In a democratic society such arguments must be fully voiced. Others have demonstrated the complex relation of such space goals to social, racial and political themes. One such study is DeWitt Kilgore's recent bookAstrofuturism: Science, Race andVisions of Utopia in Space. In this book Kilgore examinestheworkofWernhervonBraun,WillyLey,RobertHeinlein,ArthurC.Clarke,GentryLee,GerardO'NeillandBenBova,among others in what he calls the tradition of American astrofuturism.

Such studies remind us that, like it or not, the idea of space exploration has been woven into the fabric of society over the last 50 years,evenasexplorationhasraisedourcosmicconsciousness.Thehistoricalanalysisofthattransformation,inwayslargeandsmall, should help us make informed choices about our future in space.

Q.3)
Readthefollowingcomprehensionandanswerthequestionsthatfollow(5X6=30 Marks)

Financialderivativesarefinancialinstrumentsthatarelinkedtoaspecificfinancialinstrumentorindicatororcommodity,andthrough which specific financial risks can be traded in financial markets in their own right.Transactions in financial derivatives should be treated as separate transactions rather than as integral parts of the value of underlying transactions to which they may be linked. Two prominent market players in derivatives are hedgers and speculators/traders. Hedgers are the underlying asset owners, who wish to transfer the future price fluctuation risk, while speculators are the risk consumers, who take positions in derivative contracts based on the predictions of future movement of prices of the underlying asset. Speculators hold derivative positions with or without owning the underlying assets.Arbitrageurs are the third category market participants, whose approach is to risk-proof themselves. They take advantageofthepricedifferenceinaproductintwodifferentmarketlocations.Thistradetakesplacewherethebuyerpurchasesanasset for a cheaper price in one market/location and arrangesto sell the same simultaneously in a different market/location at a higher price.

Thevalueofafinancialderivativederivesfromthepriceofanunderlyingitem,suchasanassetorindex.Unlikedebtinstruments,no principalamountisadvancedtoberepaidandnoinvestmentincomeaccrues.Financialderivativesareusedforanumberofpurposes including risk management, hedging, arbitrage between markets, and speculation.

Forwardsarecontractssignedbetweentwopartiestobuyorselltheunderlyingassetonanyfuturedateforapriceagreeduponon the date of signing of the contract. Forwards are decentralised and customisable contracts based on the requirements of the parties involved and are traded over-the-counter (OTC) and not on any exchanges.

Futuresarestandardisedforwardcontractswhicharetradedthroughanyregulatedexchanges.Forwardsandfuturesarethecommit- ments to buy or sell the asset ..

Financial derivatives enable parties to trade specific financial risks (such as interest rate risk, currency, equity and commodity price risk, and credit risk, etc.) to other entities who are more willing, or better suited, to take or manage these risks—typically, but not always, without trading in a primary asset or commodity. The risk embodied in a derivatives contract can be traded either by trading the contract itself, such aswith options, or by creating anewcontract which embodiesrisk characteristicsthat match, in a countervailingmanner,thoseoftheexistingcontractowned.Thislatteristermedoffsetability,andoccursinforwardmarkets.Offsetabilitymeans that it will often be possible to eliminate the risk associated with the derivative by creating a new, but "reverse", contract that has characteristicsthat countervail the risk of the first derivative. Buying the newderivative isthe functional equivalent of selling the first derivative, asthe result isthe elimination of risk.The ability to replace the risk on the market istherefore considered the equivalent of tradability in demonstrating value.The outlay that would be required to replace the existing derivative contract represents its value—actual offsetting is not required to demonstrate value.

(a) Whoparticipatesinthederivative market?

(b) Discussthethreeusesofthe derivative.

(c) Whatisthedifferencebetweenforwardandthefuturemarket?

(d) Whatisoffsetability?

(e) Fromwheredofinancialderivativesderivetheirprice?