

B.SC PART II (Semester Third)

TOPIC- I

SCIENCE AND SENSIBILITY

Que: 1: Sum up the main ideas contained in the essay “Sense and Sensibility”.

This essay Science and Sensibility is an extract from the book "The Common-Sense of Science," written by Dr. Jacob Bronowski. Born in 1908 in Poland, he had his early education in Germany. He could hardly speak a few words of English when he set foot on the English soil at the age of 12. But after he started reading Macaulay and Joseph Conrad, and analyzed their styles, he slowly realized a great literature. But because of the disorderly way in which he fell upon masterpieces, he had left behind tracts of neglected literature.

The author contends that man in the twentieth century is surrounded by the products of science. But in spite of that a layman usually ignores science as a mysterious stranger. The reason is the verbiage of the scientific jargon, which keeps it camouflaged. According to Bronowski, the need of the hour is to present scientific knowledge shorn of this mumbo-jumbo of technical phraseology. And this exactly is the mission of his life – to make scientific knowledge accessible to the man in the street.

The author compares the layman’s difficulties here to his own boyhood difficulties with literature. The helplessness, which Bronowski faced with writers like Marlowe, Coleridge and H.G.Wells, are the difficulties, which every reader meets with scientists like Napier, Humphrey Davy and Rutherford, who were contemporaries of the three writers.

Many people tend to believe that science has progressively strangled the arts. But the real scapegoat is not science, but change. Science today is more powerful than in the time of Isaac Newton. But against this, the arts rarely reach the height of his contemporary John Dryden. It is therefore tempting to conclude that science outgrows its older ideas, while great literature remains permanent. But this is a hopeless muddle of concepts. Dryden and Newton each revealed a wholly new set of possibilities in their forms of knowledge. Both are classics in this sense. And neither are classics in any other sense. The belief that science destroys culture, and that the arts have flourished only when the sciences have been neglected, is directly contrary to history because the culture of the West begins in Greece, and in the great age of Greece, art and science penetrated one another more closely than in any modern age. In England we put the golden age into the reign of Queen Elizabeth, an age of commercial, industrial as well as literary invention. Sixty years after the death of Elizabeth came the age of Restoration literature. One symbol of the age is the founding of the most important scientific society in the world. The meeting, which founded it, opened with a lecture on astronomy by Christopher Wren, the architect. The society was given its name, the Royal Society, and its motto by John Evelyn the diarist. To encourage the use of simple and lucid prose, it appointed a committee, which included the poet John Dryden.

According to Bronowski, the golden ages of literature were in fact times of greatness when science and the arts went forward hand in hand. But literary critics say that it has come to an end with the advent of the Industrial revolution between 1760 & 1800. Yet these critics date the Romantic revival also during the same period. The Industrial revolution cannot be construed

as a kind of death, because it gave our world its structure. And it created in the Romantic poets and the reformers what has remained our sensibility. So today in China, and India and other countries with few machines, life is brutal and laborious, and sensibility is unknown. According to Bronowski, it was the engine, it was the horsepower which created consideration for the horse; and the Industrial Revolution which created our sensibility.

Science changes our values in two ways. It injects new ideas into the familiar culture, subjecting it to technical change, thus recreating our whole sensibility by such subtle shifts. Science and the arts today are not as discordant as many people think. The difficulties, which we all have in this regard, are a sign of the lack of a broad and general language in our culture. Science and arts shared the same language at the Restoration. They no longer seem to do so today, because they lack the same language. According to Bronowski, it is the business of each of us to try to remake that one universal language which alone can unite art and science, and layman and scientist, in a common understanding.

TOPIC- II

THE SCIENTIFIC POINT OF VIEW

John Burdon Sanderson Haldane was a versatile genius. He studied Greek and Latin at Oxford and then went to London to do research in Zoology. He was interested in a variety of subjects and at different times held such posts as Reader in Biochemistry in Cambridge, Professor of Genetics in London University, Professor of Physiology at the Royal Institute and Professor of Statistics at the Indian Statistical Institute in Calcutta. In an autobiographical sketch, he once said that he knew eleven languages. Haldane was a Marxist and used to contribute articles to the Marxist Daily worker and scientific topics, written in a style which even a person with average education could understand. His works include *Deadalus or Science and the Future*, *Possible Worlds*, *Science and Ethics* and *The Inequality of Man* from which the present essay is taken.

The impact of science on an ordinary man and woman is at present two fold. We are benefitted by scientific discoveries and inventions. Science gives us many convenient things like railway, motor car, aeroplane and electricity. It has made our lives comfortable. Secondly, science effects a common man's opinions, too. Our ideas of universe, the beginning of life and man on earth are based more on scientific explanation than on anything else. Now science is believed more than religion. Thus science has given a new shape to our ideas and opinions.

According to the author, science can do us still greater service and benefit. At present scientific method is used only by the scientists in research and

laboratories but scientific method can be used in our daily affairs too. It can solve our personal problems as well as social problems. It can provide a correct approach to life. The main features of scientific point of view are truthfulness, impartiality and rationality. Scientific standpoint means search of truth. A scientist is impartial like a judge. He does not differentiate between man and the other but between man and worm. He does not bring into the studies his personal likes and dislikes. Secondly, the scientific standpoint is based on reasons. It is not emotional. It is rational. It cares for facts and figures. It considers arguments and ideas and does not allow personal feelings to interfere with study or conclusions. Further scientific point of view is also ethically neutral. A scientist does not read anything ethically. He is not like a judge to decide what is right and what is wrong. But, for a scientist, the important thing is what is true and what is not true. He has to give facts and arguments, not moral judgment.

The scientific point of view at present is very different from an average man's point of view as an average man always puts his personal feelings, likes and dislikes into the study or discussion of any problem. He always calls it either good or bad. He does not care for facts and figures. To compare and contrast the scientific standpoint with popular kind of thinking the writer gives us a few examples. He takes up the question of American Negroes and the problem of disease among them.

Many white Americans argue that Negroes inferior human beings as compared to white men. They are said to be the carrier of diseases. Therefore, they should be kept apart from the white population. This is a belief of common Americans. Scientific thinking is different from this. It does not take into account, personal likes and dislikes, interests and morality. A biologist would simply state

that there are a few differences in the physical make up between a Negro and a White man. These do not prove the latter's superiority. Further, he will point out that the problem of disease among Negroes is very much related to the climatic conditions and living habits. To live in the field or in south region suits the Negroes. They are diseased only in north or in factories. They die there more quickly. This conclusion is based on facts and arguments not on personal likes and interest. Again the writer compares the two views-popular and scientific. Popular views regarding diseases are this that it is the punishment given by God or the result of committing sin but scientific view says that the diseases are due to disobedience of physical or natural laws.

At last the author says that the scientific inventions have no meaning for us unless we adopt scientific point of view or thinking.

TOPIC- III

INDIA'S CONTRIBUTION TO WORLD UNITY

'India's Contribution to World Unity' is a short extract from a lecture by the well known British historian **Arnold J.Toynbee** on the human values that he finds characteristic of the Indian people. The historian writes that these values could very well be of great relevance to the rest of the world. Toynbee says that Indians have a characteristic attitude towards life and towards the handling of human affairs.

Indians are free from rancour and do not hate their adversaries. Toynbee quotes the example of India's struggle for freedom. Once the struggle came to an end, the Indians did not brood over the past and didn't nurse any grievances against the Britishers. He also points out that he was delivering this lecture at a commemoration held in the memory of an Indian of Muslim religion. And Muslims also invaded India before the Britishers.

Toynbee recollects his last visit to Delhi when he paid his respects to Gandhiji at his shrine. Standing here, he wonders whether there has ever been any leader like Gandhi, who is a successful struggle for political liberation, has been a benefactor not only to his nation but also to the nation from whose rule he helped his own people to free themselves. Gandhiji made it impossible for the Britishers to continue ruling India and he did it in such a way that the British withdraw without any disgrace. Toynbee praises Gandhiji because in his struggle for liberation, he not only helped the Indians but also saved the Britishers. If only the struggle had taken a violent form, neither of the nations would be happy. Several such struggles remained as common tragedies of history. Gandhiji saved Britain as

well as India from such a tragedy by inspiring the people of India to carry out their struggle on a spiritual plane.

According to Toynbee, Non-violent revolution is a characteristic Indian accomplishment. After the successful independence struggle, non-violence has found a new field of action in India's domestic life. Here Toynbee gives reference to the Bhoodan movement. He also refers to Emperor Ashoka who substituted religious propaganda for military aggression as an instrument for unifying the world. Speaking on the importance of non-violence, Toynbee recalls the year 1945 when atom bombs were dropped on Hiroshima & Nagasaki. He says that in this atomic age, mankind cannot save itself from self-destruction unless we all practice non-violence ignoring all provocations. Toynbee points out the hostile relation between India and China. He says that the Indians should remember that it their obligation to go on setting an example of non-violence to the rest of the world. Hence a great spiritual responsibility rests on India to guide mankind towards self-preservation and not self-destruction. The spirit of non-violence is inspired by a moral ideal. The moral ideal is bound with the intellectual belief that human beings have more than one approach to truth and to salvation. While 'truth' is a glimpse of absolute Spiritual Reality, 'salvation' is attaining harmony with Reality. This broad-minded approach to Reality is a characteristic of India. A devout Shaiva or a devout Vaishnava may claim that his own way is better than the others. Yet they recognize that both are seeking the same truth and salvation in their own ways and both ways are genuine. This Indian appreciation of variety is a good ideal for the rest of the world. Toynbee reminds us that we are living in an age of technology where we are physically neighbours but psychologically strangers. If we need to avoid mutual destruction and to create good relationships, we should value the variety of our human heritage. This is the reason why India's achievement of variety –in-unity is of worldwide importance. Lastly Toynbee points

out that Gandhiji, in spite of his very busy schedule, always made some time for contemplation. This is also characteristic of the Indian tradition. He says that today's Indians irrespective of their urgent tasks, should take Gandhiji as an example and should not allow these tasks to disturb one's spiritual life.

Toynbee concludes that the unfortunately the Western people did not recognize and practice this virtue of contemplation as in the Western Middle Ages. They have almost lost this art of contemplation which is nothing but the art of living. The spiritual gift that makes man human is still alive in the Indian soul. The Indians should go on setting examples of it and save mankind from self destruction.

TOPIC- IV

WHAT I BELIEVE

E. M. Forster is an individualist and liberal thinker. He is an artist, finds difficult to adjust with the changing world. He does not believe any organized religion or social or political creed. He is a democrat. He is not a hero – worshipper. He does not believe in Great Men or Gospels. Respect for the individual, love, tolerance and sympathy had been the cherished ideals of democratic principles. He observes that the world is changing from bad to worse. Violence, cruelty plus racial religious persecution dominate the world. This essay is the honest confession of the Personal Faith. It guides his life. In other words, he follows the dictates of his conscience. He is truly a secular democrat. He does not claim to be a member of any religion or sect. This essay throws light on his personality. E. M. Forster begins ‘What I Believe’ with a note of clean confession. He does not believe in Belief. Most of the creeds are militant. The world is full of religious or racial persecution. He admits that Faith is a mental starch. He differs from the world. He believes in personal relationships. The world is surrounded by violence and cruelty. We must love people and trust them. Reliability is the basis of personal relationships. It is not a matter of contract. It is a matter for the heart. without natural warmth, reliability is impossible. Most men possess this warmth. Politicians want to keep the faith.

Personal relations are despised today. We are urged to get rid of them. We are told to dedicate ourselves to some movement or cause. He halts the idea of the causes. Democracy is not a beloved Republic really. It is less hateful than another form of government. The individual is important. All types of individuals make civilization. There is no division of people between bossers and bossed. He is the

admirer of ordinary people. They get a chance in democracy. They are creative in their private lives. They are confined to their domestic work. Only democracy allows them to express themselves.

Democracy allows criticism and allows varieties of expression. Public criticism can check scandals. He believes in The freedom of Press. Parliament is sneered as a Talking Shop. He values parliament because it criticizes and talks. Its chatter gets wide exposure. The police and the army represent force. They represent the Government. All society rests upon force. All the great creative actions and decent human relation occur during intervals. We need not get habituated to Force. Force or Violence is the ultimate reality on our earth. No form of Government or Christianity will bring peace to the world. No change of heart will occur. It is a wrong presumption that we cannot improve. What is good in people is their insistence on creation. Their belief in human values and loyalty creativeness alerts the people when violence sleeps. In order to escape the trials, we need not turn to hero-worship. Hero worship is a dangerous vice. It is a minor merit of democracy. It cannot produce Great Man. Democracy can produce different kind of small men with varieties. A hero is an essential part of dictatorship.

He distrusts Great Men. They are surrounded by a desert of uniformity around them. They are deprived of ordinary pleasures of the average man. He believes in Aristocracy. It is not the Aristocracy of power. Aristocracy is based on Power and Influence. He believes in Aristocracy of the sensitive, the considerate and the plucky. It has a universal existence. They are found everywhere. They represent the true human tradition. It is the victory of the queer race over cruelty and chaos. They are sensitive towards the world. They are generous. They have the capacity to endure. They can take a joke. They can't give up laughter. He disapproves the public image of the Aristocrats. He declares that he would like to

go with the old Scotsman. He wanted less chastity and more delicacy. He accepts his aristocrats with all their human imperfections. He doesn't reject sensuous joys or pleasures. The terminology (Phraseology) describing aristocracy is false. Authority (Political Power) can utilize them or ignore them. They are not restricted to iron bars or Holy Kingdom. Their canvas is wide open. There is complete pleasure in earthly life. One needs eyes to see and hands to feel.

The power makes people crooked. The man without a status symbol is happy. Member of Parliament or Government does not trust each other. Suspicion, treachery, robbery and cheating are seen in public life. This is practiced in the name of decency. The primitive man restrained these elements through certain taboos. There will be no messiah to preach a new Gospel. Only good temper or goodwill can strengthen. All theological prayers are a part of wishful thinking. One must under native goodness of man to explore New Universe to make life worth living. Christianity can't answer or solve the problems before us. In modern society Money behind the spiritual institutions will influence the people. The organized religion is a failure. His faith is very small. As an Individualist, he fears that the dictator hero can not help the people solve their difficulties. Every human being is born separately and will die separately. Everybody is born naked and will die naked.

TOPIC- V

UNIVERSITY DAYS

In *University Days* by James Thurber we have the theme of hardship, control, frustration and struggle. Taken from his *My Life and Hard Times* collection the story is narrated in the first person by Thurber himself and from the beginning of the story the reader realizes that Thurber may be exploring the theme of hardship. Thurber is woeful when it comes to his botany classes. Rather than his professor understanding that Thurber has bad eyesight. The professor continues to try and get Thurber to see through the microscope. If anything the professor is trying to control Thurber. Which some critics might suggest is the job of a teacher or professor. However Thurber has a genuine ailment. He really is unable to see. There are other classes like economics that Thurber struggles in. Though he is not as bad as Bolenciewicz. Who apart from his abilities on the football field is not a good student. Thurber also uses ingenuity to pass his classes. An example being getting someone else to wear his number when swimming.

There is also a sense that Thurber is disinterested in most of his classes. He doesn't really put much effort into his work and the effort he does put in is not good enough. Something that is sure to frustrate his teachers. It may also be a case that Thurber is mocking the military. Not only do all students march the wrong way (with the exception of Thurber) but Thurber can't allow for the fly to be killed. He is the best student in the class yet he appears to be a pacifist. Something that many readers might find ironic. What is also interesting about the story is the fact that Thurber apart from not putting much effort into his studies doesn't appear to know what he wants to do. He has enrolled in journalism but he does not write

anything or research anything. Which may leave some to conclude that Thurber though afflicted with bad eyesight may in fact be lazy.

Thurber is also not slow to call out the intelligence or rather the lack of it when it comes to other students. Notably Bolenciewicz. In many ways Thurber's opinion on Bolenciewicz is stereotypical with many people considering football players to be of a lower intelligence and only in college or university due to their athletic abilities. As a piece of comedy the story is effective as readers will find Thurber's failures to be humorous. People like laughing at the misfortune of others when comedy is used. However Thurber's parents might have something to say about their son's adventures. University costs money and they may not feel as though their money is being well spent. Throughout the story the reader is only given Thurber's account of what happens. Which may or may not be reliable. Often first person narratives are not reliable.

Thurber never takes into account the faculty members who have to suffer at his hand. They are patient at first but also get frustrated which is understandable. They are after all only human. Though Thurber manages to turn the frustration into something humorous. The fact that Thurber no longer thinks about his days in university may also be significant as he may not necessarily be using anything that he learnt in university. It is certain that he has no use for botany and as for military training we know that Thurber has not pursued a career in the military. It wouldn't be wrong to think that Thurber considered his time in university to be a waste of time. Any skill he may have learnt there, apart from journalism, has been of no use to him. The reader is also left thinking that if Thurber had his way and was not dependent on his parent's he would have left university and pursued a career in journalism. He would have been happier and he would have saved himself a lot of bother. However as a piece of comedy the story manages to succeed. Though with

most comedy there is a serious element and Thurber by writing the story may be having a crack at both his fellow students and his teachers. Waiting till he was in gainful employment to do so. At least then he had something to fall back on. His writing which generally speaking is very good.