



# Wordsmithy

# **Essay Writing Competition**

Pravega invites all budding wordsmiths to craft essays on any of our six topics.

Wordsmithy is all about putting across ideas in a persuasive and coherent way; we do not really care about how well you dodge split infinitives or if sesquipedalian blood runs in your veins. Feel free to use any kind of persuasion in your essay: images, cartoons, sketches or even links to audio/video! But don't forget to keep Mr. Chekhov in the back of your mind!

### What's at stake?

1st Prize: Rs. 3000 2nd Prize: Rs. 2000 3rd Prize: Rs. 1000

The top 10 essays will get certificates from IISc Pravega 2014.

Though IISc is a science institute, we are NOT specifically looking for arguments to support/deify science in any way. We are looking for what YOU think! And that's what you should put to paper, even if it involves making a mickey out of science.

### **Rules**

- I. There are two categories:
  - Junior: Grade 12 and below.
  - Senior: Undergraduate and Postgraduate.

Topics remain same for both. Prizes will be awarded separately.

- 2. Criteria for evaluation:
  - Creativity: 50%
  - Structure and coherence: 20%
  - Adherence to topic: 10%
  - Language: 5%
  - 'Wow' factor: 15%
- 3. Plagiarism of any sort will not be tolerated and essays with plagiarised content will be disqualified. We treat intellectual dishonesty very seriously!
- 4. Content from any source must be cited before inclusion in your essay.
- 5. The essay must be freshly written and must not be previously published in digital or print media.





- 6. Word limit: 2000 words.
- 7. You must register yourself for the competition on the website to participate.
- 8. Email the essay in pdf/doc/rtf/docx format to the co-ordinator's email id: suhas@pravega.org
- 9. The judges' decision is final and binding.
- 10. Submission deadline: 11:59 PM on 25th January, 2014.





# **Topics**

### Topic I

The arts have often accused science's reductionist principles of diluting the beauty of the universe. I9th century poet Keats once even remarked that Newton had destroyed the poetry of the rainbow by reducing it to mere prismatic colors. However, scientists hold firm: science is a celebration of the beauty of the universe and scientific investigation only adds to our perception of beauty, never subtracts.

Richard Feynman makes this point particularly well in an interview with the British Broadcasting Corporation:

"I have a friend who's an artist and has sometimes taken a view which I don't agree with very well. He'll hold up a flower and say "look how beautiful it is," and I'll agree. Then he says "I as an artist can see how beautiful this is, but you as a scientist take this all apart and it becomes a dull thing," and I think that he's kind of nutty. First of all, the beauty that he sees is available to other people and to me too, I believe. Although I may not be quite as refined aesthetically as he is ... I can appreciate the beauty of a flower. At the same time, I see much more about the flower than he sees. I could imagine the cells in there, the complicated actions inside, which also have a beauty. I mean it's not just beauty at this dimension, at one centimeter; there's also beauty at smaller dimensions, the inner structure, also the processes. The fact that the colors in the flower evolved in order to attract insects to pollinate it is interesting; it means that insects can see the color. It adds a question: does this aesthetic sense also exist in the lower forms? Why is it aesthetic? All kinds of interesting questions which the science knowledge only adds to the excitement, the mystery and the awe of a flower. It only adds. I don't understand how it subtracts."

You may visit http://vimeo.com/55874553 to see a delightful animation of this idea accompanied by Feynman's narration.

What do you think?

Does scientific investigation serve to dilute the sense of beauty and wonder that one feels about the universe?

#### OR

Is it a source of profound beauty and inspiration by itself?

Siding with either Keats or Newton, write an essay in less than 2000 words illustrating with examples your thoughts on this matter.





### Topic II

Since the beginning of civilization, a strong belief that human beings are God's "favourite creations" has dominated the minds of people. The Bible says

"And God blessed Noah and his sons and said to them, 'Be fruitful and multiply and fill the earth. The fear of you and the dread of you shall be upon every beast of the earth and upon every bird of the heavens, upon everything that creeps on the ground and all the fish of the sea. Into your hand they are delivered. Every moving thing that lives shall be food for you. And as I gave you the green plants, I give you everything."

Many still believe in the idea of 'special creation'. However, biologists argue to the contrary. Science is inching closer and closer to the conclusion that there absolutely nothing special about life - it is just another complex chemical reaction. A large fraction of evolutionary biologists believe that there is nothing 'special' about the existence of sentient beings like ourselves. Given the large time scale over which evolution has operated along with the fact that there are potentially billions of life-supporting planets in the universe, the non-zero probability of emergence of intelligent life would inevitably have led to the emergence of intelligent life.

Such views, if accepted by everyone, will overthrow the concept of a benevolent God who looks over his creations and protects them from harm. What effects could such a realisation have on the common masses? Is the concept of a God necessary for morality? Would it lead to complete chaos and banishment of morals? Or would it only make us wiser and more self-reliant beings?

Reflecting on these questions, write an essay in less than 2000 words with relevant examples and references.





### Topic III

Quoted below is the opening to Paul Lockhart's "A Mathematician's Lament". We present it as some food-for-thought for the essay topic. It's long, we know. But plough on till the end—it will give you a new perspective through which you can view the topic at hand.

The complete 25 page lament, which is a pleasure to read, can be found at: http://www.maa.org/sites/default/files/pdf/devlin/LockhartsLament.pdf

"A musician wakes from a terrible nightmare. In his dream he finds himself in a society where music education has been made mandatory. "We are helping our students become more competitive in an increasingly sound-filled world." Educators, school systems, and the state are put in charge of this vital project. Studies are commissioned, committees are formed, and decisions are made—all without the advice or participation of a single working musician or composer.

Since musicians are known to set down their ideas in the form of sheet music, these curious black dots and lines must constitute the "language of music." It is imperative that students become fluent in this language if they are to attain any degree of musical competence; indeed, it would be ludicrous to expect a child to sing a song or play an instrument without having a thorough grounding in music notation and theory. Playing and listening to music, let alone composing an original piece, are considered very advanced topics and are generally put off until college, and more often graduate school.

As for the primary and secondary schools, their mission is to train students to use this language—to jiggle symbols around according to a fixed set of rules: "Music class is where we take out our staff paper, our teacher puts some notes on the board, and we copy them or transpose them into a different key. We have to make sure to get the clefs and key signatures right, and our teacher is very picky about making sure we fill in our quarter-notes completely. One time we had a chromatic scale problem and I did it right, but the teacher gave me no credit because I had the stems pointing the wrong way."

In their wisdom, educators soon realize that even very young children can be given this kind of musical instruction. In fact it is considered quite shameful if one's third-grader hasn't completely memorized his circle of fifths. "I'll have to get my son a music tutor. He simply won't apply himself to his music homework. He says it's boring. He just sits there staring out the window, humming tunes to himself and making up silly songs."

In the higher grades the pressure is really on. After all, the students must be prepared for the standardized tests and college admissions exams. Students must take courses in Scales and Modes, Meter, Harmony, and Counterpoint. "It's a lot for them to learn, but later in college when they finally get to hear all this stuff, they'll really appreciate all the work they did in high school." Of course, not many students actually go on to concentrate in music, so only a few will ever get to hear the sounds that the black dots represent. Nevertheless, it is important that every member of society be able to recognize a modulation or a fugal





passage, regardless of the fact that they will never hear one. "To tell you the truth, most students just aren't very good at music. They are bored in class, their skills are terrible, and their homework is barely legible. Most of them couldn't care less about how important music is in today's world; they just want to take the minimum number of music courses and be done with it. I guess there are just music people and non-music people. I had this one kid, though, man was she sensational! Her sheets were impeccable—every note in the right place, perfect calligraphy, sharps, flats, just beautiful. She's going to make one hell of a musician someday."

Waking up in a cold sweat, the musician realizes, gratefully, that it was all just a crazy dream. "Of course!" he reassures himself, "No society would ever reduce such a beautiful and meaningful art form to something so mindless and trivial; no culture could be so cruel to its children as to deprive them of such a natural, satisfying means of human expression. How absurd!"

Sadly, our present system of mathematics education is precisely this kind of nightmare. In fact, if I had to design a mechanism for the express purpose of destroying a child's natural curiosity and love of pattern-making, I couldn't possibly do as good a job as is currently being done—I simply wouldn't have the imagination to come up with the kind of senseless, soul-crushing ideas that constitute contemporary mathematics education.

Everyone knows that something is wrong. The politicians say, "we need higher standards." The schools say, "we need more money and equipment." Educators say one thing, and teachers say another. They are all wrong. The only people who understand what is going on are the ones most often blamed and least often heard: the students. They say, "math class is stupid and boring," and they are right.

Is Lockhart justified in dismissing the current system of mathematical education? In your experience, what is the state of mathematical education today? Is a knowledge of mathematics essential to all? What kind of pedagogy would you suggest, keeping both the mathematicians-to-be and laymen in mind?

Write an essay in less than 2000 words, reflecting on these questions.





### Topic IV

"A book is made from a tree. It is an assemblage of flat, flexible parts (still called "leaves") imprinted with dark pigmented squiggles. One glance at it and you hear the voice of another person, perhaps someone dead for thousands of years. Across the millennia, the author is speaking, clearly and silently, inside your head, directly to you. Writing is perhaps the greatest of human inventions, binding together people, citizens of distant epochs, who never knew one another. Books break the shackles of time—proof that humans can work magic."

Carl Sagan

Do you regularly get ensnared by the web of magic that authors weave with words? What is it that you think goes into weaving good magic? Have fictional characters have had as great an impact on you as real ones? If yes, how? If you did not read, how different a person would you have been?

Contemplating on these questions, write an essay in less than 2000 words on the joys of reading, explaining how important the ingredient of reading has been in making you you.

(You can talk about specific books or characters if you wish.)





### Topic V

The Terri Schiavo case was a famous legal battle fought between the years 1990–2005 over the issue of prolonging life support to a young woman named Teresa Marie Schiavo who had been declared brain dead after a sudden collapse due to full cardiac arrest and had persisted in a vegetative state for several years. While Terri's husband, Michael Schiavo, insisted that he was carrying out Terri's own wishes by appealing for the removal of her feeding tube, her parents, the Schindlers, vehemently argued that Terri was on a gradual road to recovery and had been expressing a strong desire to live. The court's decision to remove Terri's feeding tube led to a massive public outcry and her case gained international recognition with protesters making emotional appeals to the government of USA to allow Terri to live as long as she might.

The issue was further complicated by allegations of malpractice against the judge who passed the order for removal of her life support. Her parents also claimed that Michael was guilty of infidelity as well as misappropriation of the funds that were meant for her treatment. Michael, on the other hand, asserted that Terri had been a woman of independent spirit and had told him once that she would not want to live on artificial life support if something like this were to happen. However, there were no witnesses to testify his statements. After 14 appeals and numerous motions, petitions, and hearings in the Florida courts; five suits in federal district court and four denials of certiorari from the Supreme Court of the United States, it was finally ruled that Terri's feeding tube be removed and she died on March 31, 2005.

This case is a standing example of how complicated the issue of euthanasia or 'mercy killing' can get. Keeping in mind all such complications that can arise with the decision to end a person's life, write an essay on whether or not euthanasia should come into practice in the society.





### Topic VI

We do not choose the commencement of our existence. We do not choose the physical makeup of our brains. We do not choose the circumstances of our birth. What then do we choose?

One may attempt to deny the presence of free-will based on the above argument—as we do not choose the primal things that govern our thoughts and actions, are we in any way responsible for them? Does there exist anything responsible for the physical events we 'will' into the world? The argument above has interesting ramifications for fields of study as far and wide as philosophy, ethics and artificial intelligence. Mark your position with an argument no longer than 2000 words—as to whether or not free-will exists or does not.