HUL 290 TECHNOLOGY AND CULTURE - MAJOR EXAMINATION

ANSWER **QUESTION 1**(6 MARKS) AND **ANY THREE**OF THE REMAINING FIVE (8 MARKS EACH). THAT IS, YOU HAVE TO ANSWER **FOUR** QUESTIONS IN ALL.TOTAL MARKS: **30**TIME: **2** HOURS.

Q 1. SELF IMAGES AT IITD: Study the photograph below of my last HUL290 class, held in 2012.Then answer the following questions:

a. Make a list of all the technological objects you see in the photograph and then briefly say which three of them you consider the most crucial and why.

b. How, in your opinion, do some of these objects and humans interact to create a 'classroom culture'?
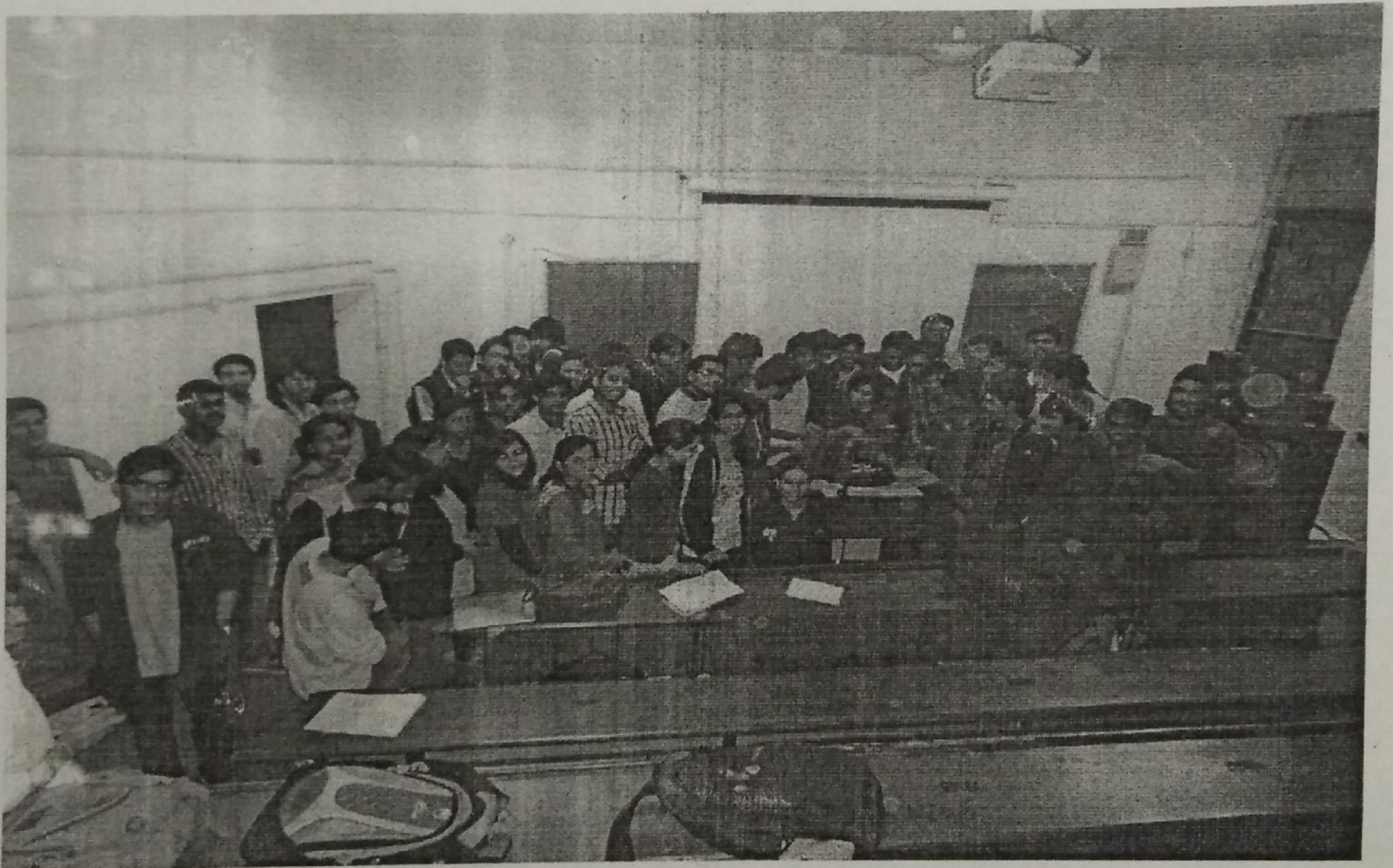
Q 2. NOMINAL AND NATURAL KINDS: The philosopher Saul Kripkemakes a distinction between 'nominal-kind' (man-made, invented) objects and 'natural-kind' objects (belonging to the world of nature, discovered). He suggests that 'expert knowledge', including technical methods of investigation, are increasingly required since many such distinctions are not directly perceptible to our senses (e.g. the difference between real and artificial gold), leading to the need for scientific and other 'experts' within cultures. Nowconsider the following list:*the Eiffel Tower, platinum, the Sangam at Allahabad, the natural ice shivalingam at Badrinath, India, biotechnologically produced rice varieties, a transplanted human kidney, a garden.* How would you classify these objects into nominal and natural kinds, and do you find any of your decisions problematic? If so, why? Finally, briefly say why you think the nominal/ natural division matters/does not matterin current discussions of the relationship between technology, science and culture.

Q 3. STRESS AT IITD: Here is how two previous students on my courses have wittily described 'stress at IITD'.

"What is stress? It's defined as force per unit area. Translating it to the IIT world, we can say that stress is roughly equal to no. of courses per semester. Now one course contains in itself, some lectures, some tutorials, three exams, some quizzes, some submissions, some presentations, and a lot of cut-throat competition. Multiply it with 5/6 and you have a stressed-out student. Now we build our definition of stress on the hypothesis that a course causes stress. that the contents of the course are the reason why the course causes stress. But according to the definition, the courses are forces and not actual stresses. Stress is the course/semester. So the courses force us into stress."(**Nikunj Bansal**, former student, IITD)

Editing Nikunj's answer....

"What is stress? It's defined as force per unit **normal (i.e. perpendicular)** area **(the difference between area and normal area is explained at the end)**. Translating it to IIT world, we can say that stress is **directly proportional** to the number of courses per semester. **Since each student handles stress differently, let c(i) be the constant of proportionality for the i'th student.** But according to the definition, the courses are forces and not actual stresses. Stress is course/semester. So the courses force us into stress. Ok, so the force that is acting on us is the real reason for all the stress. there are **three** ways to get rid of it. **One way** is to increase the area, that is the number of semesters in our case, and that will distribute the forces of courses over a greater range, and thus reduce the stress (let's call this 'the NikunjMethod). **The second way is to realign the area/forces such that instead of working perpendicular, they work at a tangent. This is done by basically concentrating on stuff tangential to what the coursework requires (playing DotA, for example).** The third way is to somehow decrease the overall force applied by the courses. Since we know that force is a vector, all we need to do is take courses that are equal in magnitude but opposite in direction and our work is done. That's where Hukkah comes in."
(**Pradeep Mathias**, former student, IITD)

On the question, you have to seriously discuss **four ways** in which 'Hukkah courses' could be vectors "equal in magnitude but opposite in direction" toyour regular courses and thus fulfil a critical function as stress-busters at IITD.

Q 4.TECHNOLOGICALLY ORIENTED THINKERS: Imagine a conversation between yourself and **at least three** of the following ten thinkers whom you have studied on this course: Karl Marx, Sigmund Freud, Thomas Kuhn, Martin Heidegger, Michel Foucault, Robert Pirsig, Ludwig Wittgenstein, Francois Lyotard, Roland Barthes and Claude Alvares. The specific theme you are concerned with is: howto improve the environment of Delhi? Thus, yourfocus should be on problems like pollution, transport, overcrowding, the rise of a consumerist 'mall' culture etc. The thinkers you choose must take a clear position on these issues while your role is to moderate and askintelligent questions.

Q 5. INDIA'S CONTRIBUTION: When Mark Zuckerberg recently came to IITD earlier this year (2015), he categorically declared: "We cannot connect everyone in the world without connecting everyone in India," adding that "ideas that entrepreneurs and students have here are those that the rest of the world does not have access to." (*Indian Express*). Please discuss any **two to four** ideas that you think Indian 'entrepreneurs and students' have already contributed - or can contribute - to 'connecting the world' based on their cultural knowledge (for example, you can refer to the list of 'Indian memes' I gave you earlier in HUL290, India as a 'recycling culture' - or anything else).

Q 6.THE HUMAN MACHINE? Write brief notes(not more than 10 sentences each) on what you think the authors meant in allfour ofthe following comments, explaining the implications of these remarks for the relationship between technology and culture in the 21st century: **a.** "The human foot is a miracle of engineering and a work of art" **Leonardo da Vinci;b.**"There are men who are capable of loving a machine more deeply than they can love a woman. They are among the happiest men on earth." **Arnold Bennett** in *The Human Machine*; **c.**"You're not a man: you're a machine" (the heroine to the hero in **George Bernard Shaw's** play *Arms and the Man*); **d.** "Man is only man at the surface. Remove his skin, dissect, and immediately you come to the machinery." **Paul Valery**, French poet.

THE END – HAPPY HOLIDAYS!