

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Semester Theory Examination, December 2019**

**Course: Communication Skills**

**Semester: I**

**Program: B.Pharma**

**Time 1.5 hrs.**

**Course Code: BP105T**

**Max. Marks: 35**

**Instructions:**

**SECTION A**

S. No.	CO	Long Answers (Answer 1 out of 2)	Marks
Q1.		<p>A group of researchers wanted to display for the first time that activation of a memory on demand, is possible by stimulating only a few neurons with light, using a technique known as optogenetics. Optogenetics enables researchers to control genetically modified neurons with a brief pulse of light.</p> <p>Memory is turned on artificially; the neurons are identified, and activated when a mouse is making a new memory. Researchers focused on a part of the brain called the hippocampus, known for learning and memory. Then, they inserted a gene that programs for a light-sensitive protein into hippocampal neurons, enabling the use of light to control the neurons.</p> <p>The light-sensitive proteins gave the mouse a new memory. Then, the animal was exposed to an environment where it received a mild foot shock, eliciting the normal fear behavior in mice: freezing in place. The mouse learned to associate a particular environment with the shock.</p> <p>Directed light on the hippocampus, activated a portion of the neurons involved in the memory, and the animals showed a clear freezing response. Stimulating the neurons appears to have triggered the entire memory.</p> <p>Tests confirmed recalling of original memory. They tested mice with the same light-sensitive protein but without the shock; they tested mice without the light-sensitive protein; and they tested mice in a different environment not associated with fear. None of these tests yielded the freezing response, thus the pulse of light activated the old fear memory</p> <p>Optogenetics provides advantage of speed and precision over traditional neuroscience techniques, like electrical stimulation or chemical agents. Electrical stimulation and chemicals alter neural activity in nonspecific</p>	<b>1X10= 10</b>

		ways and without precise timing. Optogenetics provides powerful insights into brain disorders like depression, Parkinson's disease, anxiety, and schizophrenia, and formation of complex memories in the first place.  A group is working on a wireless optical electrode that can deliver light to neurons in the human brain. We may actually undergo memory enhancement therapy with a brief session under the lights.	
	i.)	Present the above information to a group of experts. Mention and explain the style in which you will present the above information to a group of experts.	
	ii.)	Or Write a letter using the appropriate approach to inform an expert.	
<b>SECTION B</b>			
		<b>Short Answers (Answer 5 out of 7)</b>	<b>5X5=25</b>
Q2.	i.)	The enemy surrounded the soldiers. The sound of their voices could have got them killed. Mention the way in which the soldiers can communicate without arousing suspicion. Explain two advantage of this type of communication.	
	ii.)	Mark did not have the patience to listen to his new subordinate who was nervous and jittery. Therefore, Mark assumed what his subordinate wanted to say and started giving him irrelevant instructions. Name and explain the barrier	
	iii.)	The sound in the fair was deafening. Alok wanted to convey to his brother who was on the other side of the road that he had won a prestigious award. Describe the communication style he can use.	
	iv.)	A discussion on increasing the profit of the company was taking place. Ankit was very quiet and withdrawn. Hema was watching him. What should she have done to help Ankit? What skills would she be displaying by helping Ankit?	
	v.)	To a person the "value" of a piece of art could mean various things. Discuss atleast 2 ways. Provide a suggestion to achieve clarity.	
	vi.)	Neena works in an office where the level 3 employees are not entitled to weekly offs. Mention two ways by the use of language, Neena can bring about a reform in her work place.	
	vii.)	What problem in communication has happened in the following case :	

		A manager handed a new assistant a letter and asked him to “burn” it so that another copy of the document could be created. But the office assistant burnt the document with a lighted match	
		Total	35