

**DON BOSCO ARTS & SCIENCE COLLEGE**  
**ANGADIKADAVU**

*(Affiliated to Kannur University Approved by Government of Kerala)*  
**ANGADIKADAVU P.O., IRITTY, KANNUR – 670706**



**COURSE PLAN**

**BSc PSYCHOLOGY**

**(2018 – 21)**

**SEMESTER - III**

**ACADEMIC YEAR - (2019-20)**

### III Semester BSc PSYCHOLOGY (2018 - 21)

SL. No.	Name of Subjects with Code	Name of the Teacher	Duty Hours per week
1.	3A05ENG Readings in Prose and Poetry	Jisha E.	5
2.	3A 09 MAL Malayala Kavitha	Silvi Tharal	5
3.	3A09 HINGadya Ke Vivid Roop	Priyanka P. Devasia	5
4.	3B 05 PSY Cognitive Process	Athira Alex	4
5.	3B 06 PSY Experimental Psychology – Practical 1	Athira Alex	3
6.	3 C 03 PSY Neurobiological Perspectives of Behaviour	Sr. Leema Jacob	4
7.	3C 03 STA Probability And Distribution Theory	Arun Das V P	4
8.			
	<b>Class Incharge</b>	<b>Athira Alex</b>	

### TIME TABLE

Day	09.50 Am - 10.45 Am	10.45 Am - 11.40 Am	11.55 Am -12.50 Pm	01.40 Pm - 02.35 Pm	02.35 Pm - 03.30 Pm
1	3C 03 STA Probability And Distribution Theory	3B 05 PSY Cognitive Process	3A05ENG Readings in Prose and Poetry	3 C 03 PSY Neurobiological Perspectives of Behaviour	3A 09 MAL Malayala Kavitha/ 3A 09 HIN Gadya Ke Vividh Roop
2	3C 03 STA Probability And Distribution Theory	3A 09 MAL Malayala Kavitha/ 3A 09 HIN Gadya Ke Vividh Roop	3 C 03 PSY Neurobiological Perspectives of Behaviour	3B 05 PSY Cognitive Process	3A 09 HIN Gadya Ke Vividh Roop
3	3A 09 MAL Malayala Kavitha/ 3A 09 HIN Gadya Ke Vividh Roop	3C 03 STA Probability And Distribution Theory	3 C 03 PSY Neurobiological Perspectives of Behaviour	3A05ENG Readings in Prose and Poetry	3B 05 PSY Cognitive Process
4	3A05ENG Readings in Prose and Poetry	3C 03 STA Probability And Distribution Theory	3B 05 PSY Cognitive Process	3A 09 MAL Malayala Kavitha/ 3A 09 HIN Gadya Ke Vividh Roop	3B 06 PSY Experimental Psychology – Practical 1
5	3 C 03 PSY Neurobiological Perspectives of Behaviour	3A05ENG Readings in Prose and Poetry	3B 06 PSY Experimental Psychology – Practical 1	3B 06 PSY Experimental Psychology – Practical 1	3A 09 MAL Malayala Kavitha/ 3A 09 HIN Gadya Ke Vividh Roop

<b>Subject Code:</b>	<b>3A 05 ENG</b>
<b>Subject Name:</b>	<b>Readings in Prose and Poetry</b>
<b>No. of Credits:</b>	<b>4</b>
<b>No. of Contact Hours:</b>	<b>90</b>
<b>Hours per Week:</b>	<b>5</b>
<b>Name of Faculty:</b>	<b>Jisha E.</b>

**Objective:-**

1. The student understands the timeless significance of good literature which transcends the limitations and peculiarities of the age it was written in.
2. The student will acquire an understanding that language and literature are primary means by which culture and human values are transmitted.
3. The student will understand the subtleties of literary devices and techniques in the comprehension and creation of communication.
4. The student will understand the use of images and sounds to elicit the reader's emotions in both non-fiction and poetry.
5. The student will learn to see writing as an act of communication which has a purpose, a context and an audience.

**Module 1**

**Prose**

1. Mystic Experience :Nataraja Guru
2. Sanskrit and World Literature : C Rajendran
3. I Have a Dream : Martin Luther King Jr
4. Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
5. Dynamic Sport of the World : Davy A, Rocca
6. The Monster Lives :
7. The New Alexandrians :Tapscott and D. Williams

**Module 2**

**Poetry**

1. The World is Too Much With us : W. Wordsworth
2. Where the Mind is Without Fear : Rabindranath Tagore
3. Macavity: The Mystery Cat : T.S Eliot
4. My Grandmother's House : Kamala Das
5. The Negro Speaks of Rivers : Langston Hughes
6. We are Going : Kath Walker
7. Father Returning Home : Dilip Chitre

**Text :**

Resonances: An Anthology of Prose & Poetry New Delhi: Primus Books

## **TEACHING SCHEDULE**

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Mystic Experience :Nataraja Guru
		2	Mystic Experience :Nataraja Guru
		3	Mystic Experience :Nataraja Guru
2	10-06-2019 To 14-06-2019	4	Mystic Experience :Nataraja Guru
		5	Mystic Experience :Nataraja Guru
		6	Mystic Experience :Nataraja Guru
		7	Mystic Experience :Nataraja Guru
		8	Mystic Experience :Nataraja Guru
3	17-06-2019 To 21-06-2019	9	<b>DISCUSSION</b>
		10	Sanskrit and World Literature : C Rajendran
		11	Sanskrit and World Literature : C Rajendran
		12	Sanskrit and World Literature : C Rajendran
		13	Sanskrit and World Literature : C Rajendran
		14	Sanskrit and World Literature : C Rajendran
		15	Sanskrit and World Literature : C Rajendran
4	24-06-2019 To 28-06-2019	16	Sanskrit and World Literature : C Rajendran
		17	<b>DISCUSSION</b>
		18	<b>CLASS TEST</b>
		19	I Have a Dream : Martin Luther King Jr
		20	I Have a Dream : Martin Luther King Jr
		21	I Have a Dream : Martin Luther King Jr
5	01-07-2019 To 05-07-2019	22	I Have a Dream : Martin Luther King Jr
		23	I Have a Dream : Martin Luther King Jr
		24	<b>DISCUSSION</b>
		25	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
		26	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
	08-07-2019	27	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
		28	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
		29	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V

No of Weeks	Dates	Session	Topic
<b>6</b>	<b>To 12-07-2019</b>	30	Excerpt from Biography of Ayyankali :Dasan M, Pratibha V
		31	DISCUSSION
		32	CLASS TEST
		33	Dynamic Sport of the World : Davy A, Rocca
		34	Dynamic Sport of the World : Davy A, Rocca
		35	Dynamic Sport of the World : Davy A, Rocca
<b>7</b>	<b>15-07-2019 To 19-07-2019</b>	36	Dynamic Sport of the World : Davy A, Rocca
		37	Dynamic Sport of the World : Davy A, Rocca
		38	DISCUSSION
		39	DISCUSSION
		40	REVISION
		41	REVISION
<b>8</b>	<b>22-07-2019 To 26-07-2019</b>	<b>23 July</b>	<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
<b>9</b>	<b>29-07-2019 To 02-08-2019</b>	43	The Monster Lives :
		44	The Monster Lives :
		45	The Monster Lives :
		<b>31 July</b>	<b>Karkadaka Vavu</b>
		46	The Monster Lives :
		47	The Monster Lives :
		48	The Monster Lives :
<b>10</b>	<b>05-08-2019 To 09-08-2019</b>	49	The Monster Lives :
		50	The Monster Lives :
		51	The Monster Lives :
		52	The Monster Lives :
		53	The Monster Lives :
		54	The Monster Lives :
		55	The Monster Lives :
<b>11</b>	<b>12-08-2019 To 16-08-2019</b>	56	The Monster Lives :
		57	DISCUSSION
		<b>15 Aug</b>	<b>Independence day</b>
		58	The New Alexandrians :Tapscott and D. Williams

No of Weeks	Dates	Session	Topic
		59	The New Alexandrians :Tapscott and D. Williams
12	19-08-2019 To 23-08-2019	60	The New Alexandrians :Tapscott and D. Williams
		61	The New Alexandrians :Tapscott and D. Williams
		62	The New Alexandrians :Tapscott and D. Williams
		63	The New Alexandrians :Tapscott and D. Williams
		23 Aug	SreekrishnaJayanthi
13	26-08-2019 To 30-08-2019	64	DISCUSSION
		65	DISCUSSION
		66	CLASS TEST
		28 Aug	AyyankaliJayanthi
		67	The World is Too Much With us : W. Wordsworth
		68	The World is Too Much With us : W. Wordsworth
14	02-09-2019 To 06-09-2019	69	The World is Too Much With us : W. Wordsworth
		70	The World is Too Much With us : W. Wordsworth
		71	The World is Too Much With us : W. Wordsworth
		72	DISCUSSION
		73	Where the Mind is Without Fear : Rabindranath Tagore
		74	Where the Mind is Without Fear : Rabindranath Tagore
		75	Where the Mind is Without Fear : Rabindranath Tagore
			Onam Celebration
15	09-09-2019 To 13-09-2019		Muharram
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthy
16	16-09-2019 To 20-09-2019	76	Macavity:The Mystery Cat : T.S Eliot
		77	Macavity:The Mystery Cat : T.S Eliot
		78	Macavity:The Mystery Cat : T.S Eliot
		79	My Grandmother's House : Kamala Das
		80	My Grandmother's House : Kamala Das
		81	CLASS TEST
17	23-09-2019 To 27-09-2019	82	The Negro Speaks of Rivers : Langston Hughes
		83	The Negro Speaks of Rivers : Langston Hughes
		84	We are Going : Kath Walker
		85	We are Going : Kath Walker
		86	Father Returning Home :DilipChitre

No of Weeks	Dates	Session	Topic
		87	Father Returning Home :DilipChitre
<b>18</b>	<b>30-09-2019 To 04-10-2019</b>	88	Father Returning Home :DilipChitre
		89	DISCUSSION
		90	REVISION
		<b>2 Oct</b>	<b>Gandhi Jayanthi</b>
		<b>03 Oct</b>	<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
<b>19</b>	<b>07-10-2019 To 11-10-2019</b>	<b>07 Oct</b>	<b>Mahanavami</b>
		<b>08 Oct</b>	<b>Vijayadashami</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
<b>20</b>	<b>14-10-2019 To 18-10-2019</b>		<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
<b>21</b>	<b>21-10-2019 To 25-10-2019</b>	<b>21 Oct</b>	<b>University Exam Begin</b>

<b>Subject Code:</b>	<b>3B 05 PSY</b>
<b>Subject Name:</b>	<b>Cognitive Process</b>
<b>No. of Credits:</b>	<b>3</b>
<b>No. of Contact Hours:</b>	<b>72</b>
<b>Hours per Week:</b>	<b>4</b>
<b>Name of Faculty:</b>	<b>Athira Alex</b>

### **Objectives:-**

1. To familiarize students with major cognitive processes.
2. To make them aware of the different types and theories of memory
3. To develop a broader understanding of the psychological foundations of thought and language

### **Module 1:**

#### **Memory**

Memory: types-sensory memory, short term memory, long term memory, types of long term memory-declarative Vs procedural, Episodic Vs semantic. Encoding, storage and retrieval processes. Atkinson and Shiffrin model, Neural network model. Forgetting – causes, theories of forgetting. Memory distortions, memory improving techniques.

### **Module 2:**

#### **Attention and Perception.**

- a. Attention- Factors affecting attention, span of attention, distraction of attention, division of attention, selective attention, shifting of attention. Models of attention.
- b. Concepts and methods of psychophysics: concepts- absolute threshold. Methods- method of limit, method of adjustment, method of constant stimuli. Difference threshold- Weber's law, Fechner's law, signal detection theory, subliminal perception.
- c. Gestalt principles- gestalt laws of perceptual organization, gestalt approach to figure ground segregation, modern ideas about figure ground segregation..a. Colour perception (brief) Depth perception- monocular cues – relative size, linear perspective, texture gradient, atmospheric perspective, interposition, motion parallax- binocular cues- convergence, retinal disparity.
- d. Visual illusions- Muller-Lyer, Ponzo illusions, Ames room, the moon illusions.

### **Module 3:**

#### **Thought.**

- a. Thinking: basic elements of thought-concepts, proposition, images. Reasoning, judgment and decision making. Dual process views- Characteristics and functions of system 1 (fast, automatic and intuitive thinking) and system 2 (slow, deliberate and rational thinking)
- b. Reasoning- inductive and deductive reasoning. sources of error- role of mood states, beliefs, confirmation bias, hindsight. Decision making- judgment and heuristics- availability, representativeness, anchoring and adjustment. Problem solving- methods.



## **Module 4:**

### **Language.**

Language- nature and development, how language conveys meaning- definitional theory and prototype theory. Theories of language development- social learning, Chomsky, cognitive theory. Components of language development- phonological, semantic, grammar. Language and thought- how language connects to thought- Whorfian hypothesis.

### **REFERENCES**

1. Baron, R. A. (2013). Psychology (5th ed.). India: Pearson education.
2. Gleitman, H., Reisberg, D., Gross, J. (2007) Psychology. (7th ed.). USA: W. W. Norton and company
3. Riegler, B.R, & Riegler, G.R. (2012). Cognitive Psychology: Applying the science of the mind (2nd ed.). India: Dorling Kindersely.

### **Additional Reading**

1. Goldstein, E, B. (2002). Sensation and Perception. (6th ed.). USA: Wardsworth.
2. Kahneman, D. (2010). Thinking fast and slow.

## **TEACHING SCHEDULE**

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Memory: types-sensory memory, short term memory, long term memory
		2	Types of long term memory-declarative Vs procedural, Episodic Vs semantic
		3	Encoding, storage and retrieval processes.
2	10-06-2019 To 14-06-2019	4	Atkinson and Shiffrin model
		5	Neural network model.
		6	Forgetting – causes,
		7	theories of forgetting
3	17-06-2019 To 21-06-2019	8	Memory distortions,
		9	Memory improving Techniques.
		10	<b>Test Paper</b>
		11	Attention- Factors affecting attention
4	24-06-2019 To 28-06-2019	12	Span of attention, distraction of attention, division of attention.
		13	Selective attention, shifting of attention.
		14	Models of attention.
		15	Models of attention.
5	01-07-2019 To 05-07-2019	16	Models of attention. Concepts and methods of psycho physics: concepts- absolute threshold.
		17	Methods- method of limit, method of adjustment, method of constant stimuli.
		18	Difference threshold- Weber's law, Fechner's law
		19	Signal detection theory, subliminal perception
6	08-07-2019 To 12-07-2019	20	Gestalt principles- gestalt laws of perceptual organization
		21	Gestalt approach to figure ground segregation, modern ideas about figure ground segregation
		22	Modern ideas about figure ground segregation
		23	Colour perception (brief)
		24	Depth perception- monocular cues – relative size, linear perspective, texture gradient, atmospheric perspective, interposition, motion parallax
25	Depth perception- binocular cues- convergence, retinal disparity.		

No of Weeks	Dates	Session	Topic
7	15-07-2019 To 19-07-2019	26	Visual illusions- mullerlyer, ponzoillutions, ames room, the moon illusions.
		27	Class Test
		28	Assignment
		29	Seminar Presentation
		30	Seminar Presentation
		31	Seminar Presentation
8	22-07-2019 To 26-07-2019	23 July	First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Thinking: basic elements of thought-concepts, proposition, images
		33	Reasoning,
		34	judgment and decision making
		31 July	KarkadakaVavu
		35	Judgment and decision making
		36	Dual process views- Characteristics and functions of system 1(fast, automatic and intuitive thinking)
		37	Characteristics and functions of system 2 (slow, deliberate and rational thinking)
10	05-08-2019 To 09-08-2019	38	Assignment
		39	Test Paper
		40	Reasoning- inductive and deductive reasoning
		41	Sources of error- role of mood states, beliefs
		42	Decision making
		43	Judgment and heuristics-availability, representativeness
11	12-08-2019 To 16-08-2019	44	Judgment and heuristics- anchoring and adjustment.
		45	Test Paper
		15 Aug	Independence day
		46	Problem solving- methods
		47	Problem solving- methods
12	19-08-2019 To 23-08-2019	48	Discussion
		49	Seminar Presentaion
		50	Seminar Presentaion
		51	Test Paper

No of Weeks	Dates	Session	Topic
		<b>23 Aug</b>	<b>SreekrishnaJayanthi</b>
<b>13</b>	<b>26-08-2019 To 30-08-2019</b>	52	Language- nature and development
		53	Assignment
		<b>28 Aug</b>	<b>AyyankaliJayanthi</b>
		54	How language conveys meaning- definitional theory
		55	Prototype theory
<b>14</b>	<b>02-09-2019 To 06-09-2019</b>	56	Theories of language development- social learning Theory
		57	Chomsky
		58	Cognitive theory
		59	Cognitive theory
		60	Discussion
			Onam Celebration
<b>15</b>	<b>09-09-2019 To 13-09-2019</b>		<b>Muharram</b>
			<b>First Onam</b>
			<b>Thiruvonam</b>
			<b>Third Onam</b>
			<b>Fourth Onam - SreeNarayana Guru Jayanthi</b>
<b>16</b>	<b>16-09-2019 To 20-09-2019</b>	61	Components of language development- phonological, semantic, grammar
		62	Language and thought- how language connects to thought
		63	Whorfian hypothesis
		64	Seminar
		65	Seminar
<b>17</b>	<b>23-09-2019 To 27-09-2019</b>	66	Seminar
		67	Test Paper
		68	Revision
		69	Revision
		70	Revision
<b>18</b>	<b>30-09-2019 To 04-10-2019</b>	71	Revision
		72	Revision
		<b>2 Oct</b>	<b>Gandhi Jayanthi</b>
		<b>03 Oct</b>	<b>Second Internal</b>
			<b>Second Internal</b>
	<b>Second Internal</b>		
<b>19</b>	<b>07-10-2019 To 11-10-2019</b>	<b>07 Oct</b>	<b>Mahanavami</b>
		<b>08 Oct</b>	<b>Vijayadashami</b>
			<b>Second Internal</b>
			<b>Second Internal</b>

No of Weeks	Dates	Session	Topic
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

<b>Subject Code:</b>	<b>3B 06 PSY</b>
<b>Subject Name:</b>	<b>Experimental Psychology – Practical 1</b>
<b>No. of Credits:</b>	<b>3</b>
<b>No. of Contact Hours:</b>	<b>54</b>
<b>Hours per Week:</b>	<b>3</b>
<b>Name of Faculty:</b>	<b>Athira Alex</b>

### **Objectives:**

1. To create interest in practical application of psychology
2. To facilitate comprehension of theoretical concepts through experiments
3. To familiarize the students with psychological instruments and tools
4. To develop scientific and experimental attitudes among students

### **1. LEARNING**

- a. Massed versus spaced Learning
- b. Trial and Error Learning
- c. Maze learning

### **2. TRANSFER OF LEARNING**

- a. Bilateral transfer
- b. Habit interference

### **3. MOTIVATION**

- a. Knowledge of Result
- b. Level of Aspiration
- c. Effect of mental fatigue

### **4. MOTOR TESTS**

- a. Finger dexterity test
- b. Tweezer dexterity test
- c. Steadiness test
- d. Tracing

### **5. PSYCHOPHYSICS**

- a. Weight discrimination

### **REFERENCES**

1. Mohsin,S.M (2005). Experiments in Psychology. New Delhi, Motilal
2. Banarsidas Shergill, H.K.( 2012) Experimental Psychology. New Delhi, PHI Learning PvtLtd
3. Woodworth, R.S, &Schlosberg,H. ( 1971). Experimental Psychology. NewDelhi, Oxford & IBH Publishing Co.

## **TEACHING SCHEDULE**

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Massed versus spaced Learning- Experiment Overview
		2	Administration
2	10-06-2019 To 14-06-2019	3	Analysis of result and Discussion
		4	Administration
		5	Analysis of result and Discussion
3	17-06-2019 To 21-06-2019	6	Administration
		7	Analysis of result and Discussion
		8	Administration
4	24-06-2019 To 28-06-2019	9	Analysis of result and Discussion
		10	Level of Aspiration- Experimental Overview
		11	Administration
5	01-07-2019 To 05-07-2019	12	Analysis of result and Discussion
		13	Trial and Error Learning - Experiment Overview
		14	Administration and Analysis of result and Discussion
6	08-07-2019 To 12-07-2019	15	Administration
		16	Analysis of result and Discussion
		17	Administration
7	15-07-2019 To 19-07-2019	18	Analysis of result and Discussion
		19	Administration
		20	Analysis of result and Discussion
8	22-07-2019 To 26-07-2019	23 July	Administration
			Analysis of result and Discussion
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
9	29-07-2019 To 02-08-2019	21	
		31 July	<b>KarkadakaVavu</b>
		22	Administration
		23	Analysis of result and Discussion
10	05-08-2019	24	Administration
		25	Analysis of result and Discussion

No of Weeks	Dates	Session	Topic
	<b>To</b> <b>09-08-2019</b>	26	Bilateral transfer - Experiment Overview
		27	Administration
<b>11</b>	<b>12-08-2019</b> <b>To</b> <b>16-08-2019</b>	28	Analysis of result and Discussion
		29	Administration
		<b>15 Aug</b>	Analysis of result and Discussion
		30	Administration
		31	Analysis of result and Discussion
<b>12</b>	<b>19-08-2019</b> <b>To</b> <b>23-08-2019</b>	32	Administration
		33	Analysis of result and Discussion
		34	Administration
		35	Analysis of result and Discussion
		<b>23 Aug</b>	<b>SreekrishnaJayanthi</b>
<b>13</b>	<b>26-08-2019</b> <b>To</b> <b>30-08-2019</b>	36	Habit interference - Experiment Overview
		37	Administration
		<b>28 Aug</b>	Analysis of result and Discussion
		38	Administration
		39	Analysis of result and Discussion
<b>14</b>	<b>02-09-2019</b> <b>To</b> <b>06-09-2019</b>	40	Administration
		41	Analysis of result and Discussion
		42	Administration
		43	Analysis of result and Discussion
		44	Knowledge of Result- Experimental Overview
			Onam Celebration
<b>15</b>	<b>09-09-2019</b> <b>To</b> <b>13-09-2019</b>		<b>Muharram</b>
			<b>First Onam</b>
			<b>Thiruvonam</b>
			<b>Third Onam</b>
			<b>Fourth Onam - SreeNarayana Guru Jayanthi</b>
<b>16</b>	<b>16-09-2019</b> <b>To</b> <b>20-09-2019</b>	45	Administration
		46	Analysis of result and Discussion
		47	Administration
		48	Analysis of result and Discussion
<b>17</b>	<b>23-09-2019</b> <b>To</b> <b>27-09-2019</b>	49	Effect of mental fatigue – Experimental Overview
		50	Administration
		51	Analysis of result and Discussion
		52	Administration
<b>18</b>	<b>30-09-2019</b>	53	Analysis of result and Discussion



No of Weeks	Dates	Session	Topic
	<b>To</b> <b>04-10-2019</b>	54	Analysis of result and Discussion
		<b>2 Oct</b>	<b>Gandhi Jayanthi</b>
		<b>03 Oct</b>	<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
<b>19</b>	<b>07-10-2019</b> <b>To</b> <b>11-10-2019</b>	<b>07 Oct</b>	<b>Mahanavami</b>
		<b>08 Oct</b>	<b>Vijayadashami</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
<b>20</b>	<b>14-10-2019</b> <b>To</b> <b>18-10-2019</b>		<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
<b>21</b>	<b>21-10-2019</b> <b>To</b> <b>25-10-2019</b>	<b>21 Oct</b>	<b>University Exam Begin</b>

<b>Subject Code:</b>	<b>3 C 03 PSY</b>
<b>Subject Name:</b>	<b>Neurobiological Perspectives of Behaviour</b>
<b>No. of Credits:</b>	<b>3</b>
<b>No. of Contact Hours:</b>	<b>72</b>
<b>Hours per Week:</b>	<b>4</b>
<b>Name of Faculty:</b>	<b>Sr Leema Jacob</b>

### **Objectives:**

1. To enhance knowledge about brain and behavior
2. To develop an understanding of neuro-biological perspectives of behavior.
3. To develop the basic understanding of hormone and behaviour

### **Module 1:**

#### **Neuron & Nerve Impulse**

Structure of a neuron, Types : sensory, motor & inter neuron, Variation among neurons, glial cells, Functions on neuron, The neuron at rest, Action potential and its molecular basis all or none law, The refractory period, Propagation of action potential, Saltatory conduction, Chemical events at synapse, Excitatory post synaptic potential (EPSP), Inhibitory post synaptic potential (IPSP),

### **Module 2:**

#### **Organization of Nervous System – CNS**

Central nervous system- brain & spinal cord, forebrain - mid brain and hind brain, spinal cord, Non-neural material in the CNS – Meninges, blood supply, the blood brain barrier, cerebrospinal fluid. Spinal cord – monosynaptic reflex, multi synaptic reflex – brain and reflex action, Neurotransmitters- types & functions

### **Module 3:**

#### **Organization of Nervous System- PNS**

Peripheral nervous system- somatic and autonomic nervous system, Somatic nervous system- cranial and spinal nerves, Autonomic nervous system- sympathetic and parasympathetic nervous system.

### **Module 4:**

#### **Neural basis of Behaviour**

Cortical function- frontal lobe, parietal lobe, occipital lobe, temporal lobe, concept of cortical dominance, primary – somatosensory cortex, motor cortex, visual auditory cortex, association area, Broca's & Wernick's area, language area, area of planning and thinking.

### **Module 5:**

#### **Hormones and Behaviour**

Major endocrine glands and hormones, influence of hormones on behaviour: growth,

sexual behaviour and stress.Complementary Course

**REFERENCES:**

1. Kolb, B., Whishaw , I. Q. ( 2006). An introduction to brain and behaviour (3<sup>rd</sup>ed.). USA: Worth Palgrave Macmillan
- 2.Garrett, B. (2011). Brain and behaviour- an introduction to biologicalpsychology (3rd ed.). Canada: Sage publications
- 3.Pinel, J. P. J. (2006). Biopsychology (6th ed. ). U S A: Pearson Education, inc.
4. Levinthal, C. F. (1990). Introduction to physiological psychology (3rd ed.).USA: Pearson Education, Inc.

**Additional Reading**

1. Pinel, J.P.J.(2007). Basics of psychology.USA:Pearson education, Inc
2. Kalat, J. W. (2009). Biological Psychology (9th ed. ). U S A : Pearson education,Inc.

## **TEACHING SCHEDULE**

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	<b>Neuron &amp; Nerve Impulse</b> Structure of a neuron
		2	Types : sensory, motor & inter neuron
		3	Variation among neurons, glial cells
2	10-06-2019 To 14-06-2019	4	Functions on neuron,
		5	The neuron at rest
		6	Action potential and its molecular basis all or none law
		7	The refractory period,
3	17-06-2019 To 21-06-2019	8	Propagation of action potential
		9	Saltatory conduction
		10	Chemical events at synapse,
		11	Excitatory post synaptic potential(EPSP),
4	24-06-2019 To 28-06-2019	12	Inhibitory post synaptic potential (IPSP),
		13	Neurotransmitters- types & functions
		14	<b>Revision</b>
		15	<b>Class test</b>
5	01-07-2019 To 05-07-2019	16	<b>Organization of Nervous System – CNS</b> Central nervous system
		17	Brain & spinal cord,
		18	Forebrain
		19	Mid brain
6	08-07-2019 To 12-07-2019	20	Hind brain
		21	CSF
		22	Non-neural material in the CNS
		23	Meninges, blood supply,
		24	The blood brain barrier,
		25	Cerebrospinal fluid.
7	15-07-2019 To 19-07-2019	26	Spinal cord
		27	Monosynaptic reflex
		28	Multi synaptic reflex – brain
		29	Reflex action

No of Weeks	Dates	Session	Topic
		30	Neurotransmitters- types & functions
		31	Revision, class test
8	22-07-2019 To 26-07-2019	23 July	First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
			First Internal Exam
9	29-07-2019 To 02-08-2019	32	Organization of Nervous System- PNS Peripheral nervous system-
		33	Somatic and autonomic nervous system
		34	Somatic nervous system
		31 July	Karkadaka Vavu
		35	Cranial and spinal nerves
		36	Autonomic nervous system- sympathetic.
		37	Parasympathetic nervous system
10	05-08-2019 To 09-08-2019	38	Revision
		39	Class test
		40	Neural basis of Behaviour
		41	Cortical function
		42	Frontal lobe
		43	Parietal lobe,
		44	Occipital lobe
11	12-08-2019 To 16-08-2019	45	Temporal lobe .
		15 Aug	Independence day
		46	Concept of cortical dominance
		47	Primary – somatosensory cortex
		48	Motor cortex
		49	Visual auditory cortex
12	19-08-2019 To 23-08-2019	50	Association area
		51	Broca's Area
		23 Aug	Sreekrishna Jayanthi
		52	Language area,
	26-08-2019	53	Area of planning and thinking

No of Weeks	Dates	Session	Topic
13	To 30-08-2019	28 Aug	<b>Ayyankali Jayanthi</b>
		54	Revision
		55	Class test
14	02-09-2019 To 06-09-2019	56	<b>Hormones and Behaviour</b>
		57	Major endocrine glands
		58	Hormones
		59	Influence of hormones on behaviour: growth
		60	Sexual behaviour
			Onam Celebration
15	09-09-2019 To 13-09-2019		<b>Muharram</b>
			<b>First Onam</b>
			<b>Thiruvonam</b>
			<b>Third Onam</b>
			<b>Fourth Onam - SreeNarayana Guru Jayanthi</b>
16	16-09-2019 To 20-09-2019	61	Stress.
		62	Wernick's area
		63	Complementary Course
		64	Revision
		65	Class test
P		66	Revision for Sem exam --module 1
		67	Revision for Sem exam- module 2
		68	Revision for Sem exam -- module 3
		69	Revision for Sem exam - module 4
		70	Revision for Sem exam -- module 5
18	30-09-2019 To 04-10-2019	71	Revision for Sem exam- general
		72	Revision for Sem exam-- general
		2 Oct	<b>Gandhi Jayanthi</b>
		03 Oct	<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
19	07-10-2019 To 11-10-2019	07 Oct	<b>Mahanavami</b>
		08 Oct	<b>Vijayadashami</b>
			<b>Second Internal</b>
			<b>Second Internal</b>
			<b>Study Leave</b>
			<b>Study Leave</b>

No of Weeks	Dates	Session	Topic
<b>20</b>	<b>14-10-2019 To 18-10-2019</b>		<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
			<b>Study Leave</b>
<b>21</b>	<b>21-10-2019 To 25-10-2019</b>	<b>21 Oct</b>	<b>University Exam Begin</b>

<b>Subject Code:</b>	<b>3C 03 STA</b>
<b>Subject Name:</b>	<b>Probability And Distribution Theory</b>
<b>No. of Credits:</b>	<b>3</b>
<b>No. of Contact Hours:</b>	<b>72</b>
<b>Hours per Week:</b>	<b>4</b>
<b>Name of Faculty:</b>	<b>Arun Das</b>

### **Module I:**

**Probability theory-** Random experiment , Sample space, events, classical definition, frequency and axiomatic approaches to probability, Addition theorem, conditional probability, multiplication theorem, independence of events , Baye's theorem and its practical applications. (25Hrs)

### **Module II :**

**Random Variable and Probability distribution :** Random variable -Discrete and continuous types, probability mass function, probability density function, distribution function, mathematical expectation. Simple problems on discrete case only. (20Hrs)

### **Module III:**

**Standard discrete and continuous theoretical distributions:** Binomial and Poisson distributions – different characteristics and fitting of binomial and Poisson distributions, Features and properties of Normal distribution and Exponential distributions. (25 Hrs)

### **Module IV:**

**Sampling distributions:** distribution of sample mean, chi square, student's t and Snedecor's F-distributions-definition, applications and interrelation between them. (15Hrs)

### **Books for Study**

1. S.C Gupta and V.K . Kapoor: *Fundamentals of Mathematical Statistics*, Sulthan Chand and Sons
2. Murrau R Spiegel: *Theory and problems of statistics*, Schaums Outline series

### **Books for References:**

1. John E Freund, Roanld E Walpole: *Mathematical Statistics* 4th Edition, Prentice Hall India Pvt Ltd.
2. David Ebdon, Basil Blackwell: *Statistics in Geography-A practical approach*, Oxford.



## **TEACHING SCHEDULE**

No of Weeks	Dates	Session	Topic
1	06-06-2019 To 07-06-2019	1	Random experiment introduction
		2	Random experiment introduction
		3	Sample space
2	10-06-2019 To 14-06-2019	4	Sample points
		5	Events
		6	Relations and operations of events
		7	Statistical regularity
3	17-06-2019 To 21-06-2019	8	Mathematical definition of probability
		9	Class test
		10	Properties of probability
		11	Measure
4	24-06-2019 To 28-06-2019	12	seminar
		13	Statistical definition of probability
		14	Axiomatic definition of statistics
		15	Some theorems on probability
5	01-07-2019 To 05-07-2019	16	Conditional probability
		17	Independence of events ,mutual independence
		18	Introduction to Bayes theorem
		19	Bayes theorem proof
6	08-07-2019 To 12-07-2019	20	Problems on Bayes theorem
		21	Class test
		22	Introduction to random variables
		23	Introduction to random variables
		24	Random variable -Discrete
		25	Random variable -Discrete
7	15-07-2019 To 19-07-2019	26	Random variable - continuous types
		27	Random variable - continuous types
		28	probability mass function
		29	probability mass function
		30	probability density function
		31	probability density function
8	22-07-2019 To	23 July	<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>

No of Weeks	Dates	Session	Topic
	<b>26-07-2019</b>		<b>First Internal Exam</b>
			<b>First Internal Exam</b>
			<b>First Internal Exam</b>
<b>9</b>	<b>29-07-2019 To 02-08-2019</b>	32	seminar
		33	distribution function,
		34	distribution function
		<b>31 July</b>	<b>KarkadakaVavu</b>
		35	distribution function
		36	mathematical expectation.
		37	mathematical expectation.
<b>10</b>	<b>05-08-2019 To 09-08-2019</b>	38	mathematical expectation.
		39	Simple problems on mathematical expectation.
		40	Simple problems on mathematical expectation.
		41	Simple problems on mathematical expectation.
		42	Class test
		43	Binomial distribution
<b>11</b>	<b>12-08-2019 To 16-08-2019</b>	44	Binomial distribution
		45	Poisson distributions
		<b>15 Aug</b>	<b>Independence day</b>
		46	Poisson distributions
		47	different characteristics Poisson distributions
<b>12</b>	<b>19-08-2019 To 23-08-2019</b>	48	fitting of binomial distributions
		49	fitting of binomial distributions
		50	fitting of Poisson distributions,
		51	fitting of Poisson distributions
		<b>23 Aug</b>	<b>SreekrishnaJayanthi</b>
<b>13</b>	<b>26-08-2019 To 30-08-2019</b>	52	Class test
		53	seminar
		<b>28 Aug</b>	<b>AyyankaliJayanthi</b>
		54	Normal distribution
		55	Normal distribution
<b>14</b>	<b>02-09-2019 To 06-09-2019</b>	56	Normal distribution
		57	Features and properties of Normal distribution
		58	Features and properties of Normal distribution
		59	Exponential distributions
		60	Exponential distributions
			Onam Celebration

No of Weeks	Dates	Session	Topic
15	09-09-2019 To 13-09-2019		Muharram
			First Onam
			Thiruvonam
			Third Onam
			Fourth Onam - SreeNarayana Guru Jayanthi
16	16-09-2019 To 20-09-2019	61	Exponential distributions
		62	Class test
		63	Sampling distribution introduction
		64	Sampling distribution introduction
		65	distribution of sample mean
17	23-09-2019 To 27-09-2019	66	chi square distribution
		67	student's t distribution
		68	Snedecor's F-distributions-definition
		69	Snedecor's F-distributions-definition, applications and interrelation between them
		70	Seminar
18	30-09-2019 To 04-10-2019	71	Revision
		72	Class test
		2 Oct	Gandhi Jayanthi
		03 Oct	Second Internal
			Second Internal
			Second Internal
19	07-10-2019 To 11-10-2019	07 Oct	Mahanavami
		08 Oct	Vijayadashami
			Second Internal
			Second Internal
			Study Leave
			Study Leave
20	14-10-2019 To 18-10-2019		Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
			Study Leave
21	21-10-2019 To 25-10-2019	21 Oct	University Exam Begin

