

2022

Human Physiology

[P.G.]

(M.Sc. First Semester End Examinations-2022)**PAPER-PHY106****Full Marks: 50****Time: 04 Hrs***The figures in the right hand margin indicate marks**Candidates are required to give their answers in their own words as far as possible**Illustrate the answers wherever necessary***Unit 11****(Marks: 25)****[Statistical Treatment of Biological Data]**

1. Thirty micrograms of vitamin B₁₂ was given intramuscularly every 4th week to six patients of pernicious anemia. The result are given below. Do the data indicate real improvement in haemoglobin (Hb) level? ($\alpha 0.10$; $T_o = 2$; $\alpha 0.05$; $T_o = 1$) 7

Individual		1	2	3	4	5	6
Number							
Hb level (g/dl)	Before the Therapy	12.2	11.3	14.7	11.4	11.5	12.7
	After the Therapy	13.0	13.4	16.0	13.6	14.0	13.8

(2)

2. For the following data, calculate correlation coefficient to determine association if any between fluoride content of drinking water and community fluorosis index- 8

Fluoride level in drinking water (mg/lit)	Community fluorosis Index (%)
0.8	0.1
1.3	0.4
1.5	0.8
1.9	0.6
2.3	0.7
2.3	1.1
2.4	0.8
2.6	1.1
3.5	1.6
3.6	1.3

[$t_{0.10(8)}=1.860$, $t_{0.05(8)}=2.360$, $t_{0.02(8)}=2.896$, $t_{0.01(8)}=3.355$, $t_{0.001(8)}=5.041$]

3. Laboratory note book 5
4. Viva voce 5

(3)

Unit 12

Marks - 25

[Experimental Physiology]

1. Run the given C program (to be drawn by lottery) on computer and print the results. 7
- [Correct program writing -3 Correct Running - 2 Print - 2]
2. Prepare a four page MS Power point slide on the parameters given below:
- i) Give any biological topic of 'The Master Title' [Times New Roman, Font size 44]
 - ii) A uniform text body with any particular background colour. [Times New Roman, regular Font size 28]
 - iii) Insert any picture in the slide to make it attractive.
 - iv) Mention your name & roll number on the header of the slide.
3. Viva voce 5
4. Laboratory note book 5
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