

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Human anatomy and Physiology**

Date : 30/03/09

Marks : 20

Time : 9- 10 A.M.

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**Note: Draw neat and labelled diagram wherever necessary.**

Q.1 Write a note on junctional tissue of heart. **(3)**

Q.2 Write a note on electrocardiogram. **(5)**

Q.3 Write transfer mechanism for oxygen of internal respiration. **(4)**

**OR**

Q.3 Mechanics and mechanism of respiration.

Q.4 Write a note on Meninges. **(3)**

**OR**

Q.4. Write a note on cerebrospinal fluid.

Q.5 Write physiology of ANS. **(2)**

Q.6 Write a note on acid base imbalance. **(3)**

*“Don’t be afraid to make a mistake, but make sure you don’t make the same  
mistake twice”*

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Pharmaceutics-2**

Date : 31/03/09

Marks : 20

Time : 9- 10 A.M.

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**Note:** All Questions are Compulsory

Draw neat and labelled diagram wherever necessary.

Q.1 How Correct size reduction equipment is selected based upon factors of the related finished product? (4)

Q.2 Draw a neat labelled diagram and uses: **(Any Two)** (5)

(a) Fluid energy mill

(b) Cyclone separator

(c) Planetary mixer

Q.3 Enlist various large scale fluid separative methods. (2)

Q.4 Differentiate elutriation from Sedimentation. (2)

Q.5 Discuss Standard for sieves. (2)

Q.6 Write Short note on : **(Any Two)** (5)

(a) Triple roller mill

(b) Mechanism of Semisolid mixing

(c) Liquid mixers

➤ *“The ink of Scholar is more scared than the blood of martyr”.*

➤ *Best of Luck.*

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Pharmacognosy**

Date : 01/04/09

Marks : 20

Time : 9- 10 A.M.

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**Note:** Attempt any four Questions.

- Q.1 Define Pharmacognosy. Write scope of pharmacognosy. (5)
- Q.2 Write a short note on “Plant tissue culture as a source of drug” (5)
- Q.3 Define crude drug. Enumerate classification of crude drugs. Explain in detail chemical classification with its advantages and disadvantages over other system of classification. (5)
- Q.4 Write a note on Leaf Venation. (5)
- Q.5 Give various factors affecting cultivation of medicinal plant. Describe how soil and soil fertility affects the cultivation. (5)

➤ *“Small Opportunities are Often the Beginning of great Success”*

➤ *Best of Wishes for your Future.*

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Physical Pharmacy**

Date : 02/04/09

Marks : 20

Time : 9- 10 A.M.

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Q.1 Phase Equilibrium and Phase Rule. (4)

Q.2 Define Viscosity, Kinematic Viscosity and Fluidity. Mention their units in various system. (6)

Q.3 Write a note on measurement of tonicity. (4)

Q.4

A. Define the following terms (**Any two**) (2)

I. Solution

II. Molality

III. Normality

B. Solution of gases in gases and gases in liquid. (4)

**OR**

Q.4 Physical properties of liquid. (6)

➤ *“Faliure is a First step of success”*

➤ *Best of Luck*

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Applied Mathematics (Biostatistics)**

Date : 04/04/09

Marks : 20

Time : 9- 10 A.M.

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**Note:** All the Questions are Compulsory.

**Question No. 1**

**(A):** Compute the Correlation Coefficient between X and Y using the following data. **(3)**

X	2	4	5	6	8	11
Y	18	12	10	8	7	5

**(B):** The number of bacterial cells (X) per unit volume in a culture at different hours (Y) is given below. **(5)**

X	0	1	2	3	4	5	6	7	8	9
Y	43	46	82	98	123	167	199	213	245	272

Fit a line of regression of Y on X and estimate the number of bacterial cells after 12 hours.

## Question No. 2

(C): The determination of maximum plasma concentration ( $C_{\max}$ ) of drugs in  $\mu\text{g/ml}$  at three different formulations A, B and C was the subjects of a recent experiment. Four different subjects chosen at random from a group were used for this purpose. The data recorded are given in the following table. (5)

Subject	A	B	C
1	29	11	15
2	17	4	9
3	34	6	27
4	40	9	25

Carry out the analysis of variance and test at 5% level of significance that there is no significant difference among the subjects. ( $F_{T1} = 4.76$ )

(D): Two types of drugs were used on 5 and 7 patients for reducing their weights. Drug A is imported and Drug B is indigenous. The decrease in the weight after using the drugs for six months was recorded as given below. (5)

Drug A	11	13	12	14	10		
Drug B	12	9	8	15	14	9	10

Is there significant difference in the efficacy of the two drugs? If not, which drug should you buy? (Given:  $t_{10, 0.05} = 2.225$ )

(E): Explain sample and its characteristics. (2)

- *Mathematics is the mother of science.*
- *Best of luck*

**Shree Swaminarayan Pharmacy College**  
**2<sup>nd</sup> Semester Internal examination**

**Sub: Pharmaceutical Chemistry**

Date : 03/04/09

Marks : 20

Time : 9- 10 A.M.

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**Note:** Questions No.1 and 4 are Compulsory.

Solve any 1 Question from each section.

Draw neat and labelled Diagram wherever necessary.

**Section (I)**

**Q.1 Define the terms: (Solve any 5) (5)**

- A. Colligative properties
- B. Partition Coefficient
- C. Surface tension
- D. Osmotic pressure
- E. Optical rotation
- F. Parachor
- G. Dipole moment

**Q.2 Derive principle of freezing point depression upon addition of non-volatile solute.**

**Explain Rast's Camphor method. (5)**

**Q.3 Explain Adsorption. Discuss various type of adsorption. Derive Langmuir adsorption isotherm. (5)**

## Section (II)

Q.4 Define Viscosity. Explain what is meant by viscosity of liquid. Discuss the experimental determination of viscosity of liquid by Ostwald's Viscometer. (5)

Q.5 Define Specific Optical rotation? Give the method for determining Specific Optical rotation. (5)

Q.6 Write Short notes on: (Any 2) (5)

- I. Refractive Index
- II. Dielectric Constant
- III. Raoult's law.

- *“Dream is not what you see in the Sleep,  
Dream is the thing which does not let you Sleep”*
- *Best of Wishes for your Bright Career.*