

# SHAMBHUNATH INSTITUTE OF PHARMACY

I<sup>st</sup> Sessional Examination 2019-2020

D. Pharm. 2<sup>nd</sup> year

Subject- Pharmaceutics II

Time: - 1.30 hrs.

Max. Marks: - 20

Roll No 

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Subject code 214202

Note: Attempt any Five questions:

(5 X 4 = 20)

1. What is incompatibility? Define different types of incompatibility.

Ans:-

Ans 1

A pharmaceutical incompatibility may be defined as the result of prescribing or mixing the substances which are antagonistic in nature and an undesirable product is formed which may affect the safety, purpose or appearance of the preparation. These incompatibilities are of three general types, i.e. physical, chemical and therapeutic.

Physical incompatibilities are those when two or more than two substances are combined together, a physical change takes place and an unacceptable product is formed.

Chemical incompatibilities are those in which a chemical reaction takes place between the ingredients and a new undesirable compound is formed.

Therapeutic incompatibility may be the result of prescribing certain drugs to the patient with the intention to produce a specific degree of action

but the nature or the intensity of action produced is different from that intended by the prescriber.

2. What is prescription? What are various parts of a prescription?

Ans:-

Prescription is an order written by the physician (either electronic, or handwritten), dentist or any other registered medical practitioner to the pharmacist to compound and dispense a specific medication for individual patient.

The pharmacist prepare the medication according to the drug and dosages directed by the physician.

### Parts of Prescription

1. Date
2. Name, Age and Sex of the patient
3. Superscription
4. Inscription
5. Subscription
6. Signatura
7. Signature, address and registration of the prescriber.

Superscription - It is mean represented by symbol Rx which is a latin word recipe meaning take though or you take  
Rx → You take or though take.

3. Discuss physical incompatibility.

Ans:-

⇒ Physical Incompatibility -

Interaction between two or more substances which lead to change in colour, odour, taste, viscosity and morphology.

Physical incompatibility can be corrected by

- order of mixing
- alteration of solvents
- change in form of ingredients
- alteration in volume
- Emulsification.
- Addition of suspending agent.

Manifestations of Physical incompatibility

The following list outlines the various way incompatibility between or among drug agents may be manifested.

- Insolubility
- Immiscibility
- Liquefaction
- Precipitation

A. Insolubility - Insolubility of prescribe agent in vehicle.

4. Discuss about isotonic solutions and proof spirit.

Ans:-

Ans 4: Solutions having the same osmotic pressure, are said to be isotonic. As compared to blood plasma if a solution has lower osmotic pressure it is said to be hypotonic but if it has higher osmotic pressure it is said to be hypertonic.

Hypotonic solution on injection may lead to swelling of cells rapidly until they burst leading to haemolysis.

→ Proof spirit is legally defined as that mixture of alcohol and water. In India and Britain, this standard is equal to 57.1% v/v or 49.28% w/w of ethyl alcohol.

→ Any strength above proof strength is expressed as over proof (O.P.) and any strength below proof strength is expressed as Under Proof (U.P.).

5. Solve the following:

- i) Prepare 500ml of 40% alcohol from 95%.
- ii) Convert 50.16% v/v into proof spirit.

Ans:-

Ans 5 -

a) Volume of 95% alcohol to be used =  $\frac{500 \times 40}{95}$   
= 210 ml.

Therefore, Dilute 210 ml of 95% alcohol upto 500ml with water. The resulting dilution will contain 40% alcohol.

Value of proof =  $50.16 \times 1.753$   
- 100,

= 87.93 - 100  
= 12.06 U.P.

OR

Write about different type of mixtures. How will you dispense mixture containing indiffusible solid.

Ans:-

General methods for precipitates yielding combination -

Reaction between strong solution proceed at a faster weight rate and ppt. forms are thick and do not diffuse readily. Where as the reaction b/w the dilute solutions, proceed at a slow rate and the ppt. formed are light and diffused readily in the sol<sup>n</sup>.

The ppt. formed may be diffusible or indiffusible. The methods adopted for dispensing such prescriptions are -

1. Method A - This method is used for diffusible ppt. are formed and in those cases where the amount of ppt. formed are very small.
  - \* Divide the vehicle into two equal portion.
  - \* Dissolve one of the reacting substances in one portion and the other in the other portion.
  - \* Mix the two portions by slowly adding

one portion to the another with rapid stirring.

2. Method B - This method is used when the indiffusible ppt. are formed and they formed in appreciable portion of the mixture.
  - \* Divide the vehicle into two equal portions.
  - \* Dissolve one of the part of the reacting substances in one portion. Place the other portion of the vehicle in a mortar to this incorporate a sweetable amount of traga-canth powder with constant trituration until a smooth mucilage is produced, then add and dissolve the other reacting substance.
  - \* Mix the two portions by slowly adding one portion to the another with rapid stirring.

Label - Shake well before use, when dispense

6. Write the English of following latin terms:

- i) Bis in die
- ii) Si opus sit (s.o.s)
- iii) Ante cibos
- iv) Auris dextra

Ans:-

Ans 6

- (i) Bis in die :- Two times a day.
- (ii) Si opus sit (s.o.s) :- When necessary.  
necessary.
- (iii) Ante. cibos :- Before meal
- (iv) Auris dextra :- Right ear.