

**KING SAUD UNIVERSITY
COLLEGE OF PHARMACY
PHARM. CHEM. DEPT.**

**PHC-461
PRACTICAL EXAM
TIME : ONE HOUR**

**DR. ASHRAF M. MAHMOUD
2nd SEMESTER 1428/1429
24/03/1428 H**

رقم الطالب:

إسم الطالب:

UV-VIS SPECTROPHOTOMETRY

(10 MARKS)

DETERMINATION OF CHLORAMPHENICOL IN CAPSULES

Chloramphenicol capsules contain chloramphenicol, $C_{11}H_{12}Cl_2N_2O_5$, 95.0% to 105.0% of the prescribed amount (250 mg per one capsule). Determine the content of the capsule accurately at 278 nm taking 298 as the value of A (1%, 1cm) of a standard chloramphenicol:

ASSAY PROCEDURE:

- 1- Weigh the contents of 20 capsules and dissolve a quantity equivalent to 0.4 g of chloramphenicol in 400 ml distilled water, in 1000 ml-volumetric flask, and complete to the mark with distilled water.....(A)
- 2- Transfer accurately 10 ml of the stock capsule sample solution into a 100 ml volumetric flask and complete to the mark with distilled water..... (B)
- 3- From solution (B), transfer accurately ml into a 25 ml volumetric flask and complete to the mark with distilled water.....(C)
- 4- Measure the absorbance of solution (C) at 278 nm and calculate the actual concentration of your capsule sample.
- 5- Calculate the percentage of chloramphenicol in the capsules.
- 6- Calculate the molar absorptivity of chloramphenicol.