LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034	
B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.	
THIRD SEMESTER – NOVEMBER 2007	
PB 3502 - ANGIO. TAXONOMY & EMBRYOLOGY	
Date : 27/10/2007 Dept. No.	Max. : 100 Marks
$\underline{PART} - \underline{A}$	
Answer all the questions	(20 marks)
I Choose the best answer	(5 x 1 = 5)
01. Flora refers to	
a. a flowerb. a flowering plantc. collection of flowersd. description of plants	
02.Monochlamydeous flowers with curved embryo is unique to the family a. Poaceae b. Liliaceae c. Amaranthaceae` d. Euphorbiaceae	7
03. Antibiotic tomatine is obtained from the seeds ofa. Lycopersicum esculentumb. Solanum tuberosumc. Triticum aestivumd. Cannabis sativa	
04. 256 microspores will be formed by meiosis of mother cells.a. 512b. 1128c. 64d. 25	
05. Perisperm isa. part of endospermb. degenerated synergidc. degenerated secondary nucleusd. persistent nucellus	
II State whether the following are true or false.	(5 x 1 = 5)
06. Stamens arranged in two bundles are referred as didynamous stamens.	
07. Museum of Natural History is the largest herbarium in world.	
08. Quinine is a very bitter, white granular antimalarial drug.	
09. Sporopollenin is involved in the thickening of the exine of pollen grains.	
10. After fertilization, the outer integument forms the tegmen of the seed.	
III <u>Complete the following.</u>	(5 x 1 = 5)
 Gamopetalous, superior ovary, two carpels are the characters of series In Engler and Prantl's classification, monochlamydeae is included in the sub-class The alkaloids, morphine and codein are obtained from the fruits of The alkaloids, morphine and codein without the fusion of gametes. Horny endosperm is present in 	

IV. Answer the following questions each in about 50 words $(5 \times 1 = 5)$ 16. Expand ICBN. 17. What is gynandrophore? 18. Write the economic importance of *Ferula asafoetida*. 19. Distinguish between crassinucellate and tenuinucellate type of ovules. 20. What is parthenocarpy? $\mathbf{PART} - \mathbf{B}$ Answer **any five** of the following each in about 350 words. $(5 \times 8 = 40)$ 21. Describe the floral characters of the families Solanaceae and Euphorbiaceae. 22. Write short notes on herbarium techniques. 23. Using indented key, classify the following plants by selecting sets of characters. Catharanthus roseus Cleome viscosa Mangifera indica Datura metal Amaranthus viridis Cucurbita pepo 24. State the economic importance of any two spices and cereals. 25. Write the botanical name, family, morphology of useful parts and uses of any four fibre yielding plants. 26. Give an account of development of male gametophyte. 27. Briefly describe the process of fertilization. 28. Describe the structure and development of polygonum type of female gametophyte. PART - CAnswer the following questions each in about 1500 words. $(2 \times 20 = 40)$ 29. (a) Compare the salient features of the families Anacardiaceae and Cucurbitaceae. OR (b) Write an essay on the role of biochemicals in systematics. 30. (a). Explain the following : i. self and cross pollination (6 marks) ii. contrivances for self and cross pollination (8 marks) iii. modes of cross pollination (6 marks) OR (b) i. Describe the structure and development of cellular and helobial endosperm (10 marks) ii. Give an account of monocot embryo development. (10 marks)
