

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(Sixth Semester)

Branch - BIOTECHNOLOGY

APPLIED BIOTECHNOLOGY, IPR AND BIOETHICS

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	What is meant by postharvest losses? (i) Measurable quantitative and qualitative loss (ii) Measurable qualitative loss (iii) Measurable quantitative loss (iv) Measurable microbial loss	K1	CO1
	2	Which of the following is an example of agribusiness processing industry? (i) Seed farm (ii) Sugar mill (iii) Dairy farm (iv) Poultry farm	K2	CO1
2	3	Many marine derived drugs are obtained from _____. (i) Desert plants (ii) Marine sponges (iii) Mountain herbs (iv) Forest fungi	K1	CO2
	4	Which biotechnology tool is used to identify disease resistant shrimp lines? (i) Microscopy (ii) Histology (iii) Centrifugation (iv) Molecular markers	K2	CO2
3	5	Stem cell therapy is commonly used in the treatment of _____. (i) Blood disorders like leukemia (ii) Reduce immune system (iii) Autism (iv) Alzheimer	K1	CO3
	6	Melanin is produced by _____. (i) Keratinocytes (ii) Fibroblasts (iii) Melanocytes (iv) Langerhans cells	K2	CO3
4	7	Ethical implications of biotechnology includes _____. (i) Purely technical issues (ii) Social and scientific concerns (iii) Economic factors only (iv) Legislative issues only	K1	CO4
	8	Which organization provides international biosafety guidelines? (i) UNESCO (ii) FAO (iii) WHO (iv) WTO	K2	CO4
5	9	Which of the following cannot be copyright? (i) An idea (ii) Literary works (iii) Artistic works (iv) Dramatic works	K1	CO5
	10	The Neem patent was related to its use as _____. (i) Food additive (ii) Fungicide and pesticide (iii) Biofuel (iv) Fertilizer	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions
ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Analyze the scope of horticulture.	K4	CO1
		(OR)		
	11.b.	Expound the cultivation methods of cut flowers.		
2	12.a.	List out the artificial sweetness and its importance.	K1	CO2
		(OR)		
	12.b.	Trace out the economical uses of marine algae.		
3	13.a.	Explain the various types of stem cells.	K2	CO3
		(OR)		
	13.b.	Describe the benefits and importance of artificial organs.		
4	14.a.	Highlight the principles of bioethics.	K6	CO4
		(OR)		
	14.b.	Explain the importance of biosafety in a laboratory.		
5	15.a.	Differentiate between patent and copyright laws.	K4	CO5
		(OR)		
	15.b.	Examine the role of WTO in IPR.		

SECTION - C (30 Marks)

Answer ANY THREE questions
ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the various principles and methods of post-harvest techniques for commercial flowers.	K2	CO1
2	17	Define food additives. Classify them and explain each type with suitable examples.	K1	CO2
3	18	Narrate the procedure of skin replacement with its risks and complications.	K2	CO3
4	19	Discuss social and ethical issues in biotechnology.	K6	CO4
5	20	Explore the challenges and concerns of GM crops.	K5	CO5

Z-Z-Z

END