

Class : XIIth

Date :

Subject : BIOLOGY

DPP No. : 10

Topic :- Biotechnology & It's Applications

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1.	The bacterium, <i>Bacillus thuringiensis</i> is widely used in contemporary biology as					
	a) Insecticide					
	b) Agent for the production of dairy products					
	c) Source of industrial enzyme					
	d) Indicator of water pollution					
2.	The technique of DNA fingerprinting was initially developed by					
	a) Ian wilmut		b) Har Gobind Khurana	a		
	c) Jacque Monod		d) Alex Jeffreys			
3.	Consider the following	ng stat <mark>eme</mark> nts				
	I. Specific <i>Bt</i> toxin gene ha <mark>ve be</mark> en isol <mark>ated f</mark> rom <i>Bacillus thuringiensis</i>					
	II. Bt toxin is coded by a gene named cry					
	III. Bt toxin protein e	exists <mark>as inactive prot</mark> oxins				
	Which of the stateme	ents gi <mark>ven a</mark> bove are correct?				
	a) I, II and III	b) I and II	c) I and III	d) II and III		
4.	Silencing of a gene could be achieved by the use of					
	a) RNAi	b) Antisense RNA	c) Both (a) and (b)	d) None of these		
5.	In callus culture, roots can be induced by the supply of					
	a) Auxin	b) Cytokinin	c) Gibberellin	d) Ethylene		
6.	Golden rice					
	I. It is a transgenic variety of rice					
	II. It contains a goods quality of β-carotene (provitamin-A)					
	III. β-carotene is a principal source of vitamin-A					
	IV. The grains of the rice are yellow in colour due to β -carotene. The rice is commonly called golden rice					
	Which of the statements given above are correct?					
	a) I, II and III	b) II, III and IV	c) I, III and IV	d) I, II, III and IV		
7.	GEAC stands for					
	a) Genetic and Biotechnique Approval Committee		b) Gene Environment Action Committee			
	c) Genetic Engineering Approval Committee		d) Genome Engineering Action Committee			

8.	The linking of antibiotic resistance gene with the plasmid vector became possible with					
	a) DNA ligase	b) Endonucleases	c) DNA polymerase	d) Exonucleases		
9.	Genetically modified plants have been useful in increasing					
	a) Crop yield		b) Nutritional value of food			
	c) Tolerance against abio	tic stresses	d) All of the above			
10.	Transgenic crops are modified through genetic engineering to develop natural resistance to insect pests. Which one is a transgenic plant?					
	a) Tobacco and cotton	b) Tomato and rice	c) Maize and sugarcane	d) Tomato and wheat		
11	Golden rice was created by transforming rice with two beta=carotene biosynthesis genes, namely,					
11.						
	a) <i>Psy</i> and <i>Cry 1</i> genes	b) <i>LCY-e</i>	c) <i>CHY-1</i>	d) <i>CHY-2</i>		
12.	Which of the following is used in genetic engineering?					
	a) Plastid	b) Plasmid	c) Mitochondria	d) ER		
13.	Explants before organogenesis, is					
	a) Photosynthetic	b) Autotrophic	c) Heteromorphic	d) Heterotrophic		
1 /	In RNAi, genes are silenced using					
14.	a) <i>ds</i> DNA	_	c) ssDNA	d) <i>ss</i> RNA		
	aj usuna	b) <i>ds</i> RNA	C) SSDNA	u) SSNNA		
15.	GAATTC is the recognition site for the restriction endonuclease					
	a) <i>Eco</i> RI	b) <i>Hind</i> II	c) <i>Eco</i> RII	d) <i>Bam</i> HI		
16.	Consider the following statements about transgenic tobacco plant					
	I. Transgenic tobacco plants contains a gene from a bacterium, Bacillus thuringiensis					
	II. Bt gene is an insecticidal protein which damages the inner lining of the insects and kills it (insect)					
	III. The tobacco plants having Bt gene produces their own insecticide					
	Which of the statements	=				
	a) I and II	b) I and III	c) II and III	d) I, II and III		
17.	Which gene was introduced in the first transgenic cow?					
	a) Human α-lactalbumin	b) α-1-antitrypsin	c) β-1-antitrypsin	d) <i>cry</i> -IAc		
18.	Which bacteria was the first to be used as biopesticide on the commercial scale in the world?					
	a) Bacillus thuringiensis		b) <i>E. coli</i>			
	c) Pseudomonas aeruginosa		d) Agrobacterium tumefaciens			
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19.	1) I (111	1) 1		
	a) Egg of silkworm	b) Pupa of silkworm	c) Lara of silkworm	d) Insect itself		

- 20. Most widely used bioweapon is
 - a) Bacillus subtilis
 - c) Bacillus anthracis

- b) Pseudomonas putida
- d) None of these

