

This biotechnology quiz is designed to assess your basic knowledge in 'Plant Tissue Culture'. Questions come under 'medium' category. Choose the best answer from the four options given. When you've finished answering as many of the questions as you can, scroll down to the bottom of the page and check your answers by clicking 'Get score'. Percentage score will be displayed along with right answers.

1. Totipotency means

flowering in culture medium

development of fruit from a flower in a culture

development of an organ from a cell in culture medium

all of these

2. Haploid plants can be obtained from

bud culture

leaf culture

root culture

anther culture

3. In tissue culture medium, the embryoids formed from pollen grains is due to

cellular totipotency

organogenesis

double fertilization

test tube culture

4. In plant tissue culture, which of the following shows totipotency?

meristem

sieve tube

xylem vessel

collenchyma

5. In tissue culture of parenchyma, mitosis is accelerated in the presence of

auxin only

cytokinin only

auxin and cytokinin

auxin and gibberellin

6. In plant tissue culture, the callus tissues can be regenerated into complete plantlets primarily by altering the concentration of

sugars

vitamins

amino acids

hormones

7. A major application of embryo culture is in

clonal propagation

production of embryoids

overcoming hybridisation barriers

induction of somaclonal variations

8. The problem of necrosis and gradual senescence while performing tissue culture can be overcome by

spraying auxins

spraying cytokinins

suspension culture

subculture

9. The final stage in the tissue culture programme before the new plants are taken out for cultivation in the fields is known as

hardening

micropropagation

caulogenesis

embryogenesis

10. Somaclonal variation appears in plants

growing in polluted soil or water

exposed to gamma rays

raised in tissue culture

transformed by recombinant DNA technology

Answer

1. development of an organ from a cell in culture medium
2. anther culture
3. cellular totipotency
4. meristem
5. auxin and cytokinin
6. hormones
7. overcoming hybridisation barriers
8. spraying cytokinins
9. hardening
10. raised in tissue culture