

P. S. SCIENCE & H. D. PATEL ARTS COLLEGE, KADI

Internal Examination

B. Sc. Semester - V

[Mark : 40

8-10-2015]

Biotechnology - 503

[1-30 to 3-00

Principles of Biotechnology Applied to Plants

Q-1. Attend all questions.

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- (1) Totipotency means
 - (a) Able to cell growth
 - (b) convert to Meristemic
 - (c) unable to growth
 - (d) cell become tissue
- (2) N is coded in plant genetics
 - (a) Gene No.
 - (b) Genome amount
 - (c) Chromosome No.
 - (d) Chromosome amount
- (3) Explant should
 - (a) Small
 - (b) healthily
 - (c) live
 - (d) All
- (4) Haploid plant produce by which culture
 - (a) Anther culture
 - (b) pollen culture
 - (c) protoplast culture
 - (d) All
- (5) MS media have Sucrose ? pH and Agar ?
 - (a) 30 gm/5.9/8 mg
 - (b) 30 mg/5.6/8 mg
 - (c) 30 gm/5.6/8 mg
 - (d) 30 mg/5.8/8 mg
- (6) Full of PEG
- (7) Enzymes used in protoplast isolation
- (8) Example of Explants.
- (9) Autoclave Sterilization condition.
- (10) Father of Plant tissue Culture.

Q-2. Attempted any four questions. Each question carries 5 marks. 20

- (1) Describe isolation of protoplast and culture.
- (2) Explain plant tissue culture media.
- (3) Describe pollen culture.
- (4) Explain cell growth and differentiation.
- (5) Describe layout of plant tissue culture lab.

Q-3. Attempted any one questions. Each question carries 10 marks. 10

- (1) Explain plant biotechnology application with examples.
 - (2) Describe crop improvement - GMO and Gene transfer method.
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