

C 3553

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Name

Reg. No......

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, JUNE 2016

(CUCSS)

General Biotechnology

GB 4E5—STEM CELL BIOLOGY

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

Section A

*Answer **all** questions, each with weightage 1.*

1. Totipotency.
2. Hayflich limit.
3. Cryoprotectant.
4. Embryo.
5. Somatic stem cell.
6. Skin stem cells.
7. Plasticity of stem cell.
8. Feeder layer.
9. Transdifferentiation.
10. Hematopoietic stem cell.

(10 x 1 = 10 weightage)

Section B

*Answer any **seven** questions, each with weightage 2.*

11. Stem cells for liver regeneration.
12. Properties of stem cells.
13. Surface markers in somatic stem cell surface.
14. Stem cell banking.
15. Transplantation of stem cells.
16. Programming of stem cell.

Turn over

17. Methods of identification of stem cell.
18. Stem cell therapy in cardiomyopathy.
19. Umbilical cord as a source of stem cell.
20. Preclinical testing of stem cells.

(7 x 2 = 14 weig

Section C

*Answer any **two** questions, each with weightage 6.*

21. Discuss the Ethical Guidelines of stem cell therapy.
22. Explain how Stem cell therapy is useful for diseases.
23. Describe the stages of Stem cell differentiation.

(2 x 6 = 12 weight