



Gujarat Council of Vocational Training Gandhinagar



C-299

1. Name of Course:

TISSUE CULTURE

N.C.O. No. for Skills Covered:
(Please refer National Classification of
Occupations -2004 available
On www.dget.nic.in)

| | | | |
|--|--|--|--|
| | | | |
| | | | |

2. Engineering OR Non-engineering: Non-Engineering

3. No. of students per batch: 20

4. Duration in Hours. : 60 Hours

5. Duration in Month: 1 Months @ 42 hours/Week.

Duration in Month: 2 Months @ 22 hours/Week.

6. Examination Scheme:

| No. | Name of Subject | Teaching Hours during full course. | Maximum Marks. (Excluding Sessional) | Minimum Marks required for Passing (Excluding Sessional). | Sessional Marks if any. |
|-----------|-----------------|------------------------------------|--------------------------------------|---|-------------------------|
| Subject-1 | Trade Theory | 20 | 50 | 20 | 10 |
| Subject-2 | Practical | 40 | 150 | 90 | 50 |
| Subject-3 | | | | | |
| Subject-4 | | | | | |
| Subject-5 | | | | | |

7. Entry qualification for Trainee:

| | |
|--|--------------------------------------|
| Minimum entry qualification (Essential): | 4 th Pass, Above 14 Years |
| Desirable: | 10 th Pass. |

8. Minimum qualification for Trainer:

| | |
|------------------------------------|------------------------------------|
| Minimum qualification (Essential): | B.Sc.(Zoology) |
| Desirable: | B.Sc. (Zoology) 3 years experience |





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9. Syllabus Committee Member:

| Sr. No. | Name | Organization | Designation | Technical Qualification | Experience in Years | Sign. |
|---------|------------------------|-------------------------|------------------------------------|---------------------------|---------------------|-------|
| 1 | Mr. S.A. Pandav sir | Regional office(Rajkot) | Regional deputy director | B.E.(Civil) | 15 years | |
| 2 | Mr.V.K.Bhatisir | I.T.I. Junagadh | Nodal Principal | B.E.(Chem.) LL.B. Spc. | 33 years | |
| 3 | Ms. Manishaben Vaghela | I.T.I. Porbandar | Principal | Diploma in Mechanical | 3 years | |
| 4 | Mr.A.M.Ghadiyali | Fisheries Department | Superintenden t of fisheries, Por. | M.Sc. | 20 years | |
| 5 | Mr.Sheikh sir | Fisheries Dep. Veraval | Superintenden t of Fisheries, Ver | B.sc. | 20 years | |
| 6 | Mr.A.M. Parikh sir | University Junagadh | Director Extension Education | B.Ed. | 20 years | |
| 06 | Mr.V.K. Shuklasir | Fisheries Dep., Veraval | Ass. Director fisheries | B.Sc- Zoology | 20 years | |
| 87 | Mr.Mh. Hussein | Ronak Agency, m62 | Owner | 10 pass | 20 Years | |
| 08 | Mr. V.R.Thanki | ITI, Junagadh | (Fix) Sup.Instr. | DCE | 3 years | |
| 09 | Mr.I.H.Pathan | ITI, Junagadh | (Fix) Sup.Instr. | DAE | 5 years | |

10. Terminal Skills of trainee: (Should be well defined and having reference to NCO):

The trainee, after successful completion of training, will have following skills...

1. Could maintain tissue culture.
2. Could product plants from cells.
3. Recognize seeds.





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11. Approximate cost of Tools
/ Equipments / Machinery for
Starting one batch of the course:

Rupees 1.5 to 2.0
lacs

Reference Year

12. Area required for practical / Workshop for one batch.

40-60 Sq. Meter

13. Minimum Power connection required

20 K.W.

14.1 No of items in Standard list of Machinery :

13

14.1.1. Page NO from 4 to 5.

14.2 No of items in Standard list of Shop outfit :

8

14.2.1. Page NO from 4 to 5.

14.3 No of items in Standard list of Trainee Toll-Kit :

3

14.1.1. Page NO from 4 to 5.

***** FOR OFFICIAL USE *****

Approved by GCVT in Governing Body meeting on

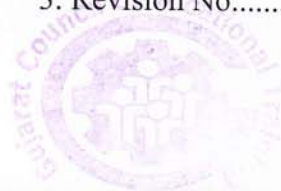
: 07-06-2012

Syllabus implemented w.e.f. admission session

: New session

Revision History :

1. Revision No..... Revision Date.
2. Revision No..... Revision Date.
3. Revision No..... Revision Date.





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Standard List of Machinery - Equipment / Shop-outfit / or Trainee Toolkit
For Trade of Tissue Culture.

| Sr. No. | Description of Item with detailed specifications | Item type i.e. Machinery / Equipment OR Shop Outfit OR Trainee Toolkit | Quantity Required per one Batch of Students | Quantity Required per one Batch of Students for Instructor | Total Quantity Required (Total of previous two columns) |
|---------|--|--|---|--|---|
| 1. | Test tubes | Machinery | 1 | - | 1 |
| 2. | Conical flask | Machinery | 1 | - | 1 |
| 3. | Measuring flask | Machinery | 1 | - | 1 |
| 4. | Beakers | Machinery | 1 | - | 1 |
| 5. | Pipet | Machinery | 1 | - | 1 |
| 6. | Microscope | Machinery | 1 | - | 1 |
| 7. | Holding Clamp | Machinery | 1 | - | 1 |
| 8. | Burner | Machinery | 1 | - | 1 |
| 9. | Freezer | Machinery | 1 | - | 1 |
| 10. | Cork | Machinery | 1 | - | 1 |
| 11. | Tweezers | Machinery | 1 | - | 1 |
| 12. | Scissors | Machinery | 10 | - | 10 |
| 13. | Goggles | T.Toolkit | 20 | 1 | 21 |
| 14. | Gloves | T.Toolkit | 20 | 1 | 21 |
| 15. | Cutters | T.Toolkit | 20 | 1 | 21 |
| 16. | Engraving tools | Machinery | 1 | - | 1 |
| 17. | Instructor chair and table | Shop outfit | - | 1 | 1 |
| 18. | Dual desk | Shop outfit | 20 | - | 20 |
| 19. | stools | Shop outfit | 20 | - | 20 |
| 20. | First aid box | Shop outfit | 1 | - | 1 |



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| Sr. No. | Description of Item with detailed specifications | Item type i.e. Machinery / Equipment OR Shop Outfit OR Trainee Toolkit | Quantity Required per one Batch of Students | Quantity Required per one Batch of Students for Instructor | Total Quantity Required (Total of previous two columns) |
|---------|--|--|---|--|---|
| 21. | Book shelf(Glass panel) | Shop outfit | 1 | - | 1 |
| 22. | Magnetic white board | Shop outfit | 1 | - | 1 |
| 23. | Display board | Shop outfit | 1 | - | 1 |
| 24. | Multimedia projector | Shop outfit | 1 | - | 1 |
| 25. | | | | | |
| 26. | | | | | |
| 27. | | | | | |
| 28. | | | | | |
| 29. | | | | | |
| 30. | | | | | |
| 31. | | | | | |
| 32. | | | | | |
| 33. | | | | | |
| 34. | | | | | |
| 35. | | | | | |
| 36. | | | | | |
| 37. | | | | | |
| 38. | | | | | |
| 39. | | | | | |
| 40. | | | | | |

(As many sheets as required should be used to accommodate all items)





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**GUJARAT COUNCIL OF VOCATIONAL TRAINING
GANDHINAGAR**

Name of Syllabus : Tissue Culture

Sector : Organic Agriculture

Terminal Competency : 1.Able to understand different type of tissue and cells.
2.Know about seeds and plants.

| Theory | Practical |
|---|--|
| <ol style="list-style-type: none">1.Definition and introduction of tissue and cells.2. Growth of tissue and cells.3. The production of exact copies of plants that produce flowers and fruits.4. To quickly produce mature plants.5. Production of plants in absence of seeds and necessary pollinators.6. Regeneration of whole plant from cell.7. Production of plants in sterlite containers.8. To clean particular plants of viral and other infections. | <ol style="list-style-type: none">1.Plant tissue culture information exchange.2.To study different types of plants and cells.3.Production of plants from cells.4.Introduction about mature plants.5.To study about seeds and polineters.6.Plant hardening.7. Sterilization of seeds and equipments.8. Visit tissue culture lab. |

Signature :

