

# UNIVERSITY OF PUNE



Examination Circular No. 139 of 2011

## Programme of Third Year B.Sc. Sem. III & IV (Including Vocational) (2003 & 2008 Pattern) Examination, October/November 2011

1. Candidates are required to be present at the respective place of the examination fifteen minutes before the time fixed for the first paper and ten minutes before the time of each subsequent paper.
2. Candidates are forbidden from taking any material into the examination hall, that can be used for malpractice at the time of examination.
3. Candidates are requested to see the Notice-Board at their place of examination regularly for changes if any, that may be notified later in the programme.
4. No request for any special concession such as a change in time or any day fixed for the University Examination on religious or any other ground shall be granted.
5. The use of non-programmable calculator is permitted.
6. The Centres and Places of the examination will be as follows :

### PUNE CITY AND PUNE DISTRICT

Sr. No.	Centre Code	College Code	Name of the Colleges
1	001	002	Fergusson College, Pune 411 004.
2	001	004	S. P. College of Arts, Science & Com., Pune 411 030.
3	001	006	Nowrosjee Wadia College (Arts & Sc.), Pune 411 001.
4	001	009	Abasaheb Garware College of Arts & Science, Pune 411 004.
5	001	069	Poona College of Arts, Science and Commerce, Pune 411 001.
6	001	070	Modern College of Arts, Sc. & Com., Shivajinagar, Pune 411 005.
7	001	147	Bharatratna Dr. Babasaheb Ambedkar Arts, Sc. & Com. College, Aundhgaon, Pune 411 007.
8	001	163	H. V. Desai College, 596, Budhawar Peth, Pune 411 002.
9	001	194	Baburaoji Gholap Arts, Science and Commerce College, Sangavi, Pune 411027.
10	001	221	M.C.E. Society's Abeda Inamdar Senior College for Arts, Science & Commerce, Camp, Pune 411 001.

**T.Y.B.Sc. Sem. III & IV/ 2**

<b>Sr. No.</b>	<b>Centre Code</b>	<b>College Code</b>	<b>Name of the Colleges</b>
11	001	227	Modern College of Arts, Science & Com. Ganeshkhind, Pune 411 053.
12	001	620	Genba Sopanrao Moze Trust's Arts, Science & Commerce College, Yerawada, Pune 411006
13	001	656	Sinhgad Technical Education Society's Science & BCS College, Vadgaon (BK) Pune 41.
14	001	696	Mandke Human Happiness Foundation's Arts, Commerce & Science College, Paud Road, Pune 411 038.
15	048	093	Annasaheb Magar College of Arts, Science & Com., Hadapsar, Pune 411 028.
16	048	187	Rayat Shikshan Sanstha's S. M. Joshi Arts, Commerce & Science College, Hadapsar, Pune 411 028.
17	080	146	T. J. College of Arts, Sc. & Com., Khadki, Pune 411003.
18	081	244	Dr. D.Y. Patil Arts, Commerce and Science College, Pimpri, Pune 411018. <b>[Students of Sanghavi Kesari College, Chinchwad also.]</b>
19	030	700	Snehavardhak Shikshan Mandal's Shaikshanik Trust College of Science, Talegaon-Dabhade, Tal. Maval, Dist. Pune.
20	086	158	Mahatma Phule Arts, Sc. and Commerce College, Pimpri-Waghire, Pune -17. <b>[Students of Sanghavi Kesari College, Chinchwad &amp; S.N.B.P.College of Arts comm.&amp; Sci.Sant Dnyaneshwar Nagar MHADA Colony Ajmera, Morwadi, Pimpri,Pune-18 also.]</b>
21	108	228	Prof. Ramkrishna More College of Arts, Science & Com., Akurdi, Pune - 44.
22	180	669	Dr. D. Y. Patil Pratishthan's Arts, Sci. & Com. College, Akurdi, Pune- 44.
23	129	371	Camp Edu. Society's Dr. Arvind B. Telang Arts, Com. & Sc. College, Nigadi, Pune 411 044.
24	142	653	Rajmata Jijau Shikshan Prasarak Mandal's Arts, Com., Sc. & Computer Science College, Bhosari, Pune. <b>(Students of G.S.M.T. Arts, Sci. &amp; Comm. College, Wadmukhwadi, Alandi Road, Pune also)</b>
25	087	159	Samajbhushan Ganpatrao Kalbhor Arts, Commerce & Science College, Loni-Kalbhor.
26	126	243	Bharteeya Jain Sanghatana's College of Arts, Sc. & Com. Wagholi, (Dist. Pune) 412 207.
27	155	699	Pad. Dr. Manibhai Desai Arts, Commerce & Science College, Uruli-Kanchan, Pune.

### **T.Y.B.Sc. Sem. III & IV / 3**

<b>Sr. No.</b>	<b>Centre Code</b>	<b>College Code</b>	<b>Name of the Colleges</b>
28	028	056	Shri. C. T. Bora Arts, Sc. & Com. College, Shirur.
29	114	233	E. S. Divekar College of Arts, Sc. & Com. College, Warwand.
30	137	299	Bhimthadi Shikshan Sanstha's Science & Arts College, Daund.
31	016	032	T.C. College of Arts, Sc. and Commerce, Baramati.
32	016	235	Vidya Pratishthan's Arts, Com. & Sc. College, Bhigwan Rd. (MIDC Zone), Baramati.
33	116	236	Sharadabai Pawar (Mahila) Arts, Science & Commerce College, Malegaon (Bk.), Baramati.
34	059	110	Arts, Sc. and Commerce College, Indapur.
35	061	112	PDEA'S Shankarrao Ursal Sci. & Waghire College of Arts and Commerce, Saswad.
36	078	142	Anantrao Thopate Arts, Science and Commerce College, Bhor.
37	023	048	Rayat Shikshan Sanstha's Annasaheb Awate Arts, Commerce Hutama Babu Genu Sci. College, Manchar, Tal. Ambegaon Dis. Pune.
38	066	119	Hutatma Rajguru Arts, Sc. & Com. College, Rajgurunagar.
39	037	075	Annasaheb Waghire College of Arts, Science & Commerce, Otur.
40	038	076	Shri Shiv Chhatrapati Arts, Science & Commerce College, Junnar.
41	113	232	Arts, Sc. & Com. College, Narayangaon, Dist. Pune.
42	115	234	Balasaheb Jadhav Arts, Com. & Sc. College, Ale, Dist. Pune
43	030	058	Indrayani Arts, Com. & Sc. College, Talegaon-Dabhade, Dist. Pune.
44	108	753	Dr, D.Y. Patil Arts, Sci. & Comm. (Women) College, Akurdi (Pradhikaran), Pune
45	001	781	Balaji Arts, Com. & Sc. College, S. No.55/2-7, Tathwade, Pune.33
46	001	164	Appasaheb Jedhe Arts, Com. & Sc. College, Shukrawar Peth, Pune.
47	184	811	Arts, Com. & Sc. (Women) College, Bori (Bk.), Tal. Junnar.
48	116	814	Shivnagar Vidya Prasarak Mandal's College of Com., Sc. & Comp. Sc., Malegaon (Bk.), Baramati.

**T.Y.B.Sc. Sem. III & IV / 4**

<b>Sr. No.</b>	<b>Centre Code</b>	<b>College Code</b>	<b>Name of the Colleges</b>
49	143	645	Netaji Shikshan Sanstha's Subhash Baburao Kul Arts, Com. & Sc. College, Daund, Kedgaon
50	060	827	Someshwar Science College, Someshwarnagar. Tal. Baramati Dist. Pune.
51	001	874	Pratibha Mahila Pratishthan's Pratibha Commerce, Science and B.C.S. College, Navi Sangvi, Pune <b>[Students of Spicer Memorial Arts, Commerce &amp; Science College, Pune -7 also]</b>
52	150	823	Maharashtra Academy of Engg. & Educational Research Alandi Devachi, Dist. Pune.
53	060	827	Someshwar Science College, Someshwarnagar. Tal. Baramati Dist. Pune
54	001	824	Vishwakarma College of Arts, Comm. & Science, Kondhwa BK., Laxminagar, Pune-48.
55	066	830	Hutama Rajguru Shikshan Prasarak Arts, Comm. & Sci. College Dehane, Tal. Khed, Rajgurunagar.
56	126	844	G.H. Rasoni Educational Research Arts, Sci. & Comm., Computer Science College, Wagholi, Tal. Haveli Dist. Pune.
57	001	866	Pune Jilha Shikshan Mandal's Arts, Science and Commerce College, Pirangut, Tal – Mulshi, Dist – Pune.
58	001	766	MAEER's Arts, Commerce & Sci. College, Pune 411 038
<b>AHMEDNAGAR CITY AND AHMEDNAGAR DISTRICT</b>			
59	006	018	Ahmednagar College, Ahmednagar. <b>.(Students of Marutirao Ghule Patil Arts Comm.&amp; Sci.College, Nagapur, Ahmednagar.also)</b>
60	006	031	Pemraj Sarda College, Ahmednagar.
61	006	077	New Arts, Sc. & Com. College, Ahmednagar. <b>(Students of Arts Comm. &amp; Science College, Takali-(Khatgaon also).</b>
62	006	199	RSS's Radhabai Kale College for Women, Ahmednagar.
63	021	039	K.J. Somaiya College of Arts, Sc. and Com., Kopargaon.
64	021	042	S.S.G.M. Arts, Sc. & Com. College, Kopargaon.
65	153	689	Karmaveer Shankarrao Kale Edu.Soc.Sau.Sushilamai Kale Arts, Commerce & Science College, Gautam Nagar, Kolpewadi, Dist. AAhmednagar
66	009	022	R.B.N.B. Art, Sci., & Comm.College, Shrirampur, Dist. A' Nagar.
67	144	649	Ashok Gramin Shikshan Sanstha's Arts, Com. & Sc. College, Ashoknagar, Tal. Shrirampur.
68	050	095	Padmashri Vikhe-Patil College of Arts, Sc. and Commerce, Pravaranagar.
69	122	246	Arts, Science and Commerce College, Rahata.

### **T.Y.B.Sc. Sem. III & IV/5**

<b>Sr. No.</b>	<b>Centre Code</b>	<b>College Code</b>	<b>Name of the Colleges</b>
70	134	296	Pravara Rural Education Society's Arts, Science & Commerce College, Kolhar, Tal. Rahata.
71	015	030	S.N. Arts, D.J.M. Com. & B.N.S.Sc.,College, Sangamner.
72	015	201	B.S.T. Arts, Sci. & Com. College, Sangamner. <b>[Students of Sahyadri Bahujan Vidya Prasarak Samaja's Arts, Commerce and Science College, Talegaon Dighe, Tal – Sangamner, Dist – Ahmednagar also]</b>
73	149	679	Arts, Sci. & Commerce College, Ashvi Khurd, Tal. Sangamner.
74	157	703	Ramesh Phirodia College of Arts, Sci. & Comm. Sakur, Tal. Sangamner.
75	065	117	Dadasaheb Rupwate Arts, Com. and Sc. College, Akole.
76	118	238	Adv. M. N. Deshmukh Arts, Sc. & Com. College, Rajur.
77	029	057	Shri Dnyaneshwar Arts, Sci. & Comm. College, Newasa.
78	109	229	Jijamata College of Science, Dnyaneshwarnagar, Bhende (Bk.) Tal. Newasa., Dist-Ahmednagar.
79	071	124	Arts, Sc. & Com. College, Rahuri.,Dist-Ahmednagar.
80	130	374	Pravara Rural Education Society's Arts, Science & Commerce College, Satral, Tal. Rahuri., Dist-Ahmednagar.
81	068	121	New Arts, Sc. & Com. College, Parner
82	076	140	M.J. Shinde Arts, Sc. & Com. College, Shrigonda., Dist-Ahmednagar.
83	076	145	Shri Chhatrapati Shivaji College of Arts, Sc. & Commerce, Shrigonda.
84	070	123	New Arts, Sc. & Com. College, Shevgaon, Dist-Ahmednagar
85	092	167	Arts, Science & Commerce College, Jamkhed, Dist-Ahmednagar.
86	024	222	Shree Tilok Jain Dnyan Prasarak Mandal's Anand College of Arts & Science, Pathardi., Dist-Ahmednagar.
87	110	223	Shri. Dadasaheb Rajale Arts, Sc. & Com. College, Adinathnagar (Pathardi), Dist-Ahmednagar.

## T.Y.B.Sc. Sem. III & IV /6

Sr. No.	Centre Code	College Code	Name of the Colleges
88	156	702	Harihareshwar Arts & Science College, Koradgaon, Tal. Pathardi.
89	020	038	Dada Patil Mahavidyalaya, Karjat, Dist-Ahmednagar.
90	145	650	Rural Education Society's Mahatma Phule Arts & Science College, Mirajgaon, Tal. Karjat, Dist-Ahmednagar.
91	171	763	Arts, Com. & Sc. College, Puntamba, Tal. Rahata, Dist-Ahmednagar.
92	169	757	P.R.R.S.'s Arts, Com..& Sc. College, Alkuti, Tal. Parner, Dist-A'Nagar
93	166	745	Arts & Sci. College, Deolali-Pravara, Tal. Rahur, Dist-Ahmednagar.i.
94	167	752	Arts, Sci. & Com. College, Buranpur, Ahmednagar.
95	119	239	A.J.M.V.P.Samaj:s Shri Dhokeshwar College ,Takali-Dhokeshwar ,Tal.-Parner-414304.
96	102	197	Arts, Sc. & Com. College, Sonai, Dist-Ahmednagar.

### NASHIK CITY AND NASHIK DISTRICT

97	003	062	K.T.H.M. Arts, Sc. & Com. College, Nasik.
98	003	105	Loknete Vyankatrao Hiray Mahavidyalaya, Panchavati, Nasik.
99	003	188	C.H.M.E. Society's Bhonsala Military College, Nasik.
100	003	240	N.D.M.V.P. Samaj's Kai. Shantaram K. Wawre Arts, Sc. & Comm. College, Uttamnagar, CIDCO, Nasik.
101	003	015	H.P.T. Arts and R.Y.K. Science College, Nasik.
102	003	250	V. N. Naik Education Society's Arts, Commerce & Science College, Nasik.
103	003	637	Godawari Shikshan Mandali's Kala, Wanijya, Vidnyan & B.C.S. College, Nasik.
104	003	701	K. K. Wagh Education Society's Arts, Com. & Sc. and Computer Science College, Adgaon, Panchawati.
105	018	036	R.N.C. Arts, J.D.B. Com. and N.S.C. Science College, Nasik Road.
106	093	168	Arts, Sc. & Com. College, Deolali Camp.
107	079	138	N.D.M.V.P.S'. Karmveer Punjababa Goverdhane Kala, Wanijya & Science Mahavidyalaya, Near Take Ghoti, Igatpuri.

### **T.Y.B.Sc. Sem. III & IV /7**

<b>Sr. No.</b>	<b>Centre Code</b>	<b>College Code</b>	<b>Name of the Colleges</b>
108	035	065	Arts, Sc. & Com. College, Sinnar.
110	031	059	K.K. Wagh Arts, Sc. & Com. College, Pimpalgaon-Basawant.
111	057	106	Karmaveer Ganpat Dada More Patil Arts, Com. & Sc. College, Niphad.
112	090	165	Arts, Sc. & Com.College, Ozar (Mig).
113	090	181	H.A.L. Science College, Ozar Township.
114	131	293	N.D.M.V.P.'s College of Sci. Arts & Comm., Saikheda, Tal. Niphad, Dist. Nasik.
115	027	053	Arts, Com. & Sc. College, Lasalgaon.
116	069	122	Arts, Sc. and Com. College, Deola.
117	084	152	Arts, Science & Commerce College, Kalwan.
118	148	683	N.D.M.V.P. Samaj's Arts, Commerce & Science College, Dindori, Nasik.
119	026	052	Arts, Science & Commerce College, Satana.
120	089	161	Arts, Sc. & Com. College, Nampur.
121	008	195	J.A.E.T. Sanstha's Arts, Sci. & Com. Mahila Mahavidyalaya, Malegaon.
123	008	220	Smt. Pushpatai Hiray Arts, Sc..& Com. Mahila Mahavidyalaya, Malegaon Camp.
124	008	021	M.S.G. Arts, Sc. & Com. College, Malegaon Camp.
125	034	064	M.G.V.M's Arts, Sc. & Com. College, Manmad.
126	064	116	Arts, Com. & Sc. College, Nandgaon.
127	044	224	Swami Muktanand Science College, Yeola.
128	008	678	The Anjuman Imdadut Tulba Sanstha's Arts, Com. & Sc. (Night) College, Malegaon.
129	044	734	Jagdamba Edu. Society's Arts. Sci. & Com. College, Manmad Rd., Yeola.
130	168	755	K. K. Wagh Edu. Society's Arts & Com. College, Chandori, Tal. Niphad.

## T.Y.B.Sc. Sem. III & IV /8

Sr. No.	Centre Code	College Code	Name of the Colleges
131	173	765	K. K. Wagh Arts, Com. & Sc. & Comp. Sc. College, Bhausaheb Nagar, Niphad, Nasik.
132	176	774	K.K. Wagh Education Society Arts, Com., Sc. & Computer Sc. College, Kakasaheb Nagar Niphad, Nashik
133	185	821	S.S.R M.T. Arts, Com. & Sc. College, Sanjibhai Delkar Marg, Saily Silvassa, Silvassa-396230
134	003	831	P.V.G. College of Comm. & Sci. Near Meri Marg Dindori Road, Nasik 422 004.

7. The Written Examination will be conducted in the following order

DAY & DATE	SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2003 Pattern	SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2008 Pattern
Saturday, 01.10.2011	(31614)GL-341-Indian StratigraphyII	(61614)GL-341-Metamorphic Petrology
	(31414)BO-341-Biology of Seed Plants-II (Gymnosperms & Palaeobotany)	(61414)BO-341-Plant Physiology and Biochemistry
	(31114)MT-341-Complex Analysis	(61114)MT-341 -Metric Spaces
	(31314)CH-341-Physical Chemistry	(61314)CH-341-Physical Chemistry
	(32214)EL-341-Digital Circuits and Systems	(62214)EL-341- Advanced Communication Systems
	(31914)MB-341MedicalMicrobiology	(61914)MB-341- Medical Microbiology
	(31714)ST-341-DistributionTheory-II	(61714)ST-341-Distribution Theory- II
	(31214)PH-341-Solid State Physics	(61214)PH-341-Solid State Physics
	(31814)GG-341-Resources and Environment (Paper II)	(61814)GG-341-Principles and Techniques of Watershed Management Paper II
	(31514)ZO-341-Genetics	(61514)ZY-341-Biotechnology
	(32314)DS-341-Role of Science and Technology in National Security	(62314)DS-341-Management of Military Technology in India.
	(32414)EN-341- Environmental Quality Management	(62414) ENV-341- Aquatic Ecosystems and Management



**T.Y.B.Sc. Sem. IV /9**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2008 Pattern</b>
Monday, 03.10.2011	(31624)GL-342-Petrology – II	(61624)GL -342 Environmental Geology
	(31424)BO-342-Biology of Seed Plants III (Anatomy & Embryology)	(61424)BO-342-Plant Pathology
	(31124)MT-342-Real Analysis II	(61124)MT-342 -Complex Analysis
	(31324)CH-342-Inorganic Chemistry	(61324)CH-342-Inorganic Chemistry
	(32224)EL-342-Process Automation	(62224)EL-342-Embedded systems
	(31924)MB-342-Genetics & Molecular Biology	(61924)MB-342-Genetics & Molecular Biology
	(31724)ST -342- Testing of Hypothesis	(61724) ST -342- Testing of Hypothesis
	(31224)PH-342-Quantum Mechanics	(61224)PH-342-Quantum Mechanics
	(31824)GG-342-Geography of Tourism	(61824)GG-342-Geography of Travel & Tourism
	(31524)ZO-342-Physiology and Endocrinology of Mammals	(61524)ZY-342-Mammalian Physiology and Endocrinology
	(32324)DS-342-Research Methodology & Project	(62324)DS-342-Economic Aspectsof War
	(32424) EN-342- Natural Resource Management	(62424) ENV-342- Natural Conservation

**T.Y.B.Sc. Sem. IV /10**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER –IV 2008 Pattern</b>
Tuesday, 04.10.2011	(31634)GL-343-Geotectonics Geology	(61634)GL -343 -Economic Geology
	(31434)BO-343-Plant Physiology and Biochemistry	(61434)BO-343-Pteridophytes, Gymnosperms and Palaeobotany
	(31134)MT-343 -Problem Course (Based on MT-341 and MT-342)	(61134)MT-343 -Problem Course on MT 341 and MT 342
	(31334)CH-34-Organic Chemistry	(61334)CH-343-Organic Chemistry
	(32234)EL-343-Modeling & Simulation Applications in Electronics	(62234)EL-343-Power Electronics
	(31934)MB-343-Enzymology & Biochemistry	(61934)MB-343- Metabolism
	(31734)ST-343-Statistical process Control (off line Methods)	(61734)ST-343-Statistical process Control (off line Methods)
	(31234)PH-343-Thermodynamics and Statistical Physics	(61234)PH-343-Thermodynamics and Statistical Physics
	(31834)GG-343-Fundamentals of Geographical Information System (GIS) (Paper - II)	(61834)GG-343-Fundamental of Geoinformatics – Paper II
	(31534)ZO-343-Zoogeography, Paleontology & Evolution	(61534)ZY-343-Molecular Biology
	(32334)DS-343-Defence Economics	(62334)DS-343-Disaster Management
	(32434) EN-343- Environmental Chemistry	(62434) ENV-343-Air and soil Quality

**T.Y.B.Sc. Sem. IV/11**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2008 Pattern</b>
Wednesday, 05.10.2011	(31644)GL-344-Economic Geology – II  (31444)BO-344-Genetics and Plant Breeding  (31144)MT-344 -Ring Theory  (31344)CH-344-Analytical Chemistry  (32244)EL-344-Physics of Electronic Materials  (31944)MB-344-Immunology  (31744)ST-344-Design of Experiments  (31244)PH-344-Nuclear Physics  (31844)GG-344-Geography of India  (31544)ZO-344-(a)Economic Entomology (b) Public Health & Hygiene (c) Aquaculture (d) Bioinformatics  (32344)DS-344-Indian Military History  (32444)EN-344-Environmental Management	(61644)GL -344 -Geotectonics  (61444)BO-344-Plant Biotechnology  (61144)MT-344- Ring Theory  (61344)CH-344-Analytical Chemistry  (62244)EL-344-Electronic Materials And Devices  (61944)MB-344 - Immunology  (61744)ST-344-Sampling Methods.  (61244)PH-344-Nuclear Physics  (61844)GG-344-India – A Geographical Study  (61544)ZY-344-Organic Evolution  (62444) ENV-344 Issues in Environmental Science

**T.Y.B.Sc. Sem. IV/12**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER- IV TIME : 2.30 P.M. TO 4.30 P.M. 2003 Pattern</b>	<b>SUBJECT SEMESTER- IV TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Friday, 07.10.2011	<p>(31654)GL-345-Natural Resource Management</p> <p>(31454)BO-345-Molecular Biology and Biotechnology</p> <p>(31154)MT-345-Differential Equations</p> <p>(31354)CH-345-Industrial Chemistry</p> <p>(32254)EL-345 -(A) Power Electronics -II (B)Principles &amp; Applications of Sensors -II (C)Industrial Electronics - II (D) Entrepreneurship Development</p> <p>(31954)MB-345-FermentationTechnology</p> <p>(31754)ST-345-Operations Research</p> <p>(31254)PH-345-Electronics <b>OR</b> Advanced Electronics</p> <p>(31854)GG-345-Geography of Soils (Paper - II)</p> <p>(31554)ZO-345-Molecular Biology</p> <p>(32354)DS-345-Computer Application in Defence</p> <p>(32454) EN-345- Environmental Geo Science</p>	<p>(61654)GL -345- Phanerozoic Stratigraphy Of India &amp; Palaeontology</p> <p>(61454)BO-345 -Botanical Techniques</p> <p>(61154)MT-345-Partial Differential Equations</p> <p>(61354)CH-345-Industrial Chemistry</p> <p>(62254)EL-345- Mathematical Methods and Analysis using MATLAB</p> <p>(61954)MB-345 -Fermentation Technology</p> <p>(61754)ST-345-Operations Research</p> <p>(61254)PH-345-Electronics/Advanced Electronics</p> <p>(61854)GG-345-Geography of Soils</p> <p>(615A4)ZY-345-a) Public Health and Hygiene <b>OR</b> (615B4) ZY- b) Biodiversity</p> <p>(62354)DS-345-Information Technology and National Security</p> <p>(62454) ENV-345-Governance and Equity: EMS, ISO 14000</p>

**T.Y.B.Sc. Sem. IV/13**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER – IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER – IV 2008 Pattern</b>
Saturday, 08.10.2011	<p>(31664)GL-346-Principles of Remote Sensing, Photogeology and Geographical Information Systems (GIS)</p> <p>(314A4)BO-346(A) Mushroom Technology (314B4) (B) Polyhouse Technology (314C4) (C) Medico Botany</p> <p>(31164)MT-346-Problem Course (Based on MT-344 and MT-345)</p> <p>(313A4) CH-346 (A) Nuclear Chemistry (313B4) (B) Polymer Chemistry (313C4) (C) Bio-Chemistry (313D4) (D)Environmental Chemistry (313F4) (F) Medicinal Chemistry</p> <p>(322A4) EL-346 (A) Computer Networking (322B4) (B) Network Operating Systems (322C4) (C)Biomedical Instrumentation - I (322D4) (D) Medical Instrumentation (322E4) (E) Agri Electronics - II (322F4) (F) Fiber Optics &amp; Fiber Optic Communication – II</p> <p>(31964) MB-346-Soil and Agricultural Microbiology</p> <p>(317A4) ST-346 (A)C++ Programming (317B4) (B)Statistical Ecology (317C4) (C)Time Series Analysis</p>	<p>(61664)GL -346 Applied Geology II</p> <p>(61464)BO-346- Pharmacognosy</p> <p>(61164)MT-346-Problem Course on MT 344 and MT 345</p> <p>(613A4) CH-346 (A) Nuclear Chemistry (613B4) (B) Polymer Chemistry (613C4) (C) Bio-Chemistry (613D4) (D)Environmental Chemistry (613E4) (E) Dairy Chemistry</p> <p><b>EL- 346- Optional Course</b></p> <p>(622G4) A) Instrumentation (622H4) B) Consumer Electronics</p> <p>(61964)MB-346-Soil and Agricultural Microbiology</p> <p>(617D4) ST-346 (A)Medical Statistics OR (617B4) (B)Statistical Ecology OR (617E4) (C) Statistical Computing Using R software.</p>

**T.Y.B.Sc. Sem. IV/14**

<p>Saturday, 08.10.2011</p>	<p><b>PH-346 Elective - II</b></p> <p>(312A4)A)Astronomyand Astrophysics - II</p> <p>312B4) (B)Biophysics - II</p> <p>(312C4)(C)Communication Electronics - II</p> <p>(312D4)(D)Electro-Acoustics and Entertainment Electronics- II</p> <p>(312E4)(E)Medical Instrumentation - II</p> <p>(312F4) (F)Motion Picture Physics - II</p> <p>(312G4) (G) Renewable Energy Sources - II</p> <p>(312H4) (H)Basic Microprocessor and Programming - II</p> <p>(312M4) (M)Auxiliary Electronics</p> <p>(312N4) (N)Elements of Material Science</p> <p>(312K4) (K)Vacuum Technology</p> <p>(312L4) (L) Lasers</p> <p>(31864)GG-346-Fundamentals of Remote Sensing (Paper - II)</p> <p>(31564)ZO-346-Development Biology</p> <p>(323A4) DS-346 (A)Strategic Thinkers</p> <p>(323B4) (B)International Law</p> <p>(323C4) (C)Refugees Studies</p> <p>(32464) EN-346- Applied Biology</p>	<p><b>PH-346 Elective - II (Select any One)</b></p> <p>(612G4)F: Renewable Energy Sources</p> <p>(612J4) G: Physics of Nanomaterials</p> <p>(612P4)H: Microcontrollers</p> <p>(612D4)I: Electro Acoustics and Entertainment Electronics</p> <p>(612L4) J: Lasers</p> <p>(61864)GG-346-Fundamentals of Geoinformatics – Paper II</p> <p>(61564)ZY-346-Genetics and Developmental Biology</p> <p>(623A4)DS-346 (A)Indian Military System. (II) (Optional)</p> <p>(623B4) (B) Maratha Military System. (II) (Optional)</p> <p>(623C4) (C)Indian Wars Since Independence. (II) (Optional)</p> <p>(62464) ENV-346- Environmental Biotechnology-II</p>
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**T.Y.B.Sc. Sem. IV/15**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2003 Pattern</b>	<b>SUBJECT TIME :2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2008 Pattern</b>
Monday, 10.10.2011	(311A4) MT-347 (A)Operations Research - II (311B4) (B)Lattice Theory (311C4) (C)Computational Mathematics - I (311D4) (D)Computational Geometry (323F4) DS-347 -(F)Maratha Art of War & Military System (323G4) (G)International Organisation (323H4) (H)Evaluation of Western Art of War	(611E4) MT-347 (A) Optimization Techniques  (623D4) DS-347-A. Military Psychology (623E4) B. Defence Journalism and National Security (623F4) C. Defence Preparedness of India (II)
Tuesday, 11.10.2011	(311N4) MT-348 (N)Lebesgue Integration (311P4) (P)Differential Geometry - II (311R4) (R)Computational Mathematics - IV (311T4) (T)Astronomy – II  (323M4) DS-348 (L)Armed Forces and Society (323N4) ( M)Geopolitics	(611F4) MT-347 (B) Improper, Integrals and Laplace Transforms  (623G4) DS-348 -A. Refugees Studies (623H4) B. Study of United Nations (623J4 ) C. Laws of War and Peace
Wednesday, 12.10.2011	(323T4) DS-349 (P)Defence Production in India  (323U4) (Q)Defence Management in India	(611G4) MT-347 (C)C-Programming-II  (623K4) DS-349- A. Management of Defence Production and Logistics in India (623L4) B. Internal Security of India (623M4) C. India's Maritime Security (II)

**T.Y.B.Sc. Sem. IV/16**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2008 Pattern</b>
Thursday, 13.10.2011	<b>Vocational Paper III</b> (39214) Still Photography and Audio Product-Entrepreneurship Development	(611H4) MT-347 (D) Dynamics <b>Vocational Paper III</b> (69214) Still Photography and Audio Product-Entrepreneurship Development
Friday, 14.10.2011	<b>Vocational Paper V :</b>  (35654) Industrial Chemistry- Inorganic and Organic based Industries  (35754) Biotechnology - Animal Cell Biotechnology  (38054) Still Photography and Audio Product-Fundamentals of Video  (38754) Computer Maintenance Entrepreneurship Development  (38954) Seed Technology  (38254) Industrial Microbiology Molecular Biology & Genetic Engineering  (38154) Electronic Equipment & Maintenance Entrepreneurship Development	(611N4) MT-347 (E) Lebesgue Integration <b>Vocational Paper V :</b>  (65654) Industrial Chemistry – Inorganic and Organic based Industries  (65754) Biotechnology – Entrepreneurship Development  (68054) Still Photography and Audio Product-Entrepreneurship Development  (68754) Computer Maintenance-Computer Hardware Administration Network  (68954) Seed Technology- Entrepreneurship Development  (68254) Industrial Microbiology - Entrepreneurship Development  (68154) Electronic Equipment & Maintenance – Entrepreneurship Development



**T.Y.B.Sc. Sem. IV/17**

<b>DAY &amp; DATE</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2003 Pattern</b>	<b>SUBJECT TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER- IV 2008 Pattern</b>
Saturday, 15.10.2011	<p><b>Vocational Paper VI :</b></p> <p>(35664) Industrial Chemistry Industrial Methods of Chemical Analysis</p> <p>(35764) Biotechnology-Microbial Biotechnology</p> <p>(38064) Still Photography and Audio Product – Radio Software</p> <p>(38764) Computer Maintenance- Network Operating System</p> <p>(38964) Seed Technology</p> <p>(38264) Industrial Microbiology – Industrial Management law and Taxation</p> <p>(38164) Electronic Equipment &amp; Maintenance – Medical Instrumentation</p>	<p>MT-347-(611D4)(F)Computational Geometry</p> <p><b>Vocational Paper VI :</b></p> <p>(65664)-Industrial Chemistry – Inorganic and Organic Based Industries -II</p> <p>(65764)-Biotechnology – Microbial Biotechnology</p> <p>(68064)-Still Photography and Audio Product – Radio Production</p> <p>(68764)-Computer Maintenance – Computer Hardware &amp; Network Administration</p> <p>(68964)-Seed Technology-Biotechnology and Intellectual Property Rights</p> <p>(68264)-Industrial Microbiology-Molecular Biology &amp; Recombinant DNA Technology</p> <p>(68164)-Electronic Equipment &amp; Maintenance – Medical Instrumentation</p>

**T.Y.B.Sc. Sem. III/18**

<b>DAY &amp; DATE</b>	<b>SUBJECTS TIME : 2.30 P.M. TO 4.30 P.M. SEMESTER III 2008 Pattern</b>
Monday, 17.10.2011	(61613) GL-331 - Mineralogy  (61413) BO-331 - Algae, Fungi and Bryophytes  (61113) MT-331- Set Theory and Logic  (61313) CH-331 - Physical Chemistry  (62213) EL-331- Advanced Digital System design  (61913) MB-331- Medical Microbiology-I  (61713) ST-331 - Distribution Theory-I  (61213) PH-331 - Mathematical Methods in Physics  (61813) GG-331 - Principles and Techniques  (61513) ZY-331 - General Zoology  (62313) DS-331 - Science Technology and National Security  (62413) ENV-301 Terrestrial Ecosystems and Management

**T.Y.B.Sc. Sem. III /19**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER- III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Tuesday, 18.10.2011	(61623) GL-332 - Igneous Petrology  (61423) BO-332- Molecular Biology  (61123) MT-332 - Real Analysis  (61323) CH-332 - Inorganic Chemistry  (62223) EL-332 - Microcontrollers  (61923) MB-332 - Genetics & Molecular Biology -I  (61723) ST-332 Theory of Estimation  (61223) PH-332 Classical Electrodynamics Electrodynamics  (61823) GG-332 Geography of Travel Tourism  (61523) ZY-332 Mammalian Histology  (62323) DS-332 Defence Economics  (62423) ENV-302 Wildlife biology

**T.Y.B.Sc. Sem. III /20**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Wednesday, 19.10.2011	(61633) GL-333- Sedimentary Petrology  (61433) BO-333 - Angiosperms and Evolution  (61133) MT-333 - Problem Course on MT-331 and MT-332  (61333) CH-333- Organic Chemistry  (62233 ) EL-333- Analog Circuit Design and Application of Linear IC's  (61933) MB-333- Enzymology  (61733) ST-333-StatisticalProcess Control (Online Methods)  (61233) PH-333 Classical Mechanics  (61833) GG-333- Fundamentals of Geo-Informatics Part-I   (61533) ZY-333 Biological Chemistry   (62333) DS-333 Study of Disaster   (62433)ENV-303 Water Quality

**T.Y.B.Sc. Sem. III /21**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Thursday, 20.10.2011	(61643) GL-334- Structural Geology  (61443) BO-334 -Genetics and Plant Breeding  (61143) MT-334 -Group Theory  (61343) CH-334 Analytical Chemistry  (62243) EL-334- Foundation of Nanoelectronics  (61943) MB-334 - Immunology  (61743) ST-334 - Design Experiments  (61243) PH-334 - Atomic & Molecular Physics  (61843) GG-334 - India Geographical Study  (61543) ZY-334- Environmental Biology and Toxicology  (62343) DS-334 - Research Methodology  (62443) ENV-304 - Issues in Environmental Sci.

**T.Y.B.Sc. Sem. III /22**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Friday, 21.10.2011	(61653) GL-335 - Precambrian Stratigraphy of India (61453) BO-335 - Biometry and Computer Applications (61153) MT-335 -Ordinary Differential Equations (61353) CH-335 - Industrial Chemistry ( 62253 ) EL-335 - 'C' Programming (61953) MB-335 -Fermentation Technology -I (61753) ST-335 'C' Programming (Turbo 'C') (61253) PH-335- 'C' Programming & Computational Physics (61853) GG-335- Geography of Soils (615A3) ZY-335 -(a)General Pathology <b>OR</b> (615B3) ZY-335 -(b)Basic Entomology (62353) DS-335 -Computer Application in Defence Management (62453 ) ENV-305 -Environmental Governance and Equity Law and ethics

**T.Y.B.Sc. Sem. III /23**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER - III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Saturday, 22.10.2011	<p>(61663) GL-336- Applied Geology I</p> <p>(61463) BO-336 Cell Biology and Seed technology</p> <p>(61163) MT-336 -Problem Course on MT-334 and MT-335</p> <p>(613A3) CH-336 - (A) Nuclear Chemistry OR (613B3) (B) Polymer Chemistry OR (613C3) (C) Bio-Chemistry OR (613D3) (D) Environmental Chemistry  OR (613E3) (E)Agriculture Chemistry</p> <p style="text-align: center;"><b>Optional - II (Only for EL – 336)</b></p> <p>(622F3)- EL-336 (A)Fiber Optics and fiber optic Communication (</p> <p>(622G3) EL-336 (B)Sensor &amp; Actuators</p> <p>(61963)- MB-336 Food &amp; Dairy Microbiology</p> <p>(617A3) -ST-336- (A)Operations Management</p> <p style="text-align: center;">(617B3)-(B )Actuarial Statistics <b>OR</b> (617D3)- (C)Time Series Analysis</p>

**T.Y.B.Sc. Sem. III /24**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER - III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Tuesday, 01.11.2011	<p><b>PH-336 Elective I : (Select any One)</b></p> <p>(612A3) PH-336- (A) Astronomy and Astrophysics-I</p> <p>(612L3)- (B) Elements of Materials Science</p> <p>(612F3)- (C) Motion Picture Physics</p> <p>(612B3)- (D) Biophysics</p> <p>(612J3)- (E) Medical Electronics</p> <p>(61863) - GG-336- Fundamentals of Geo-Informatics Part-II</p> <p>(61563) - ZY-336 - Cell Biology</p> <p>(623A3) -DS-336- (A) Indian Military System-I</p> <p>(623B3) - (B) Maratha Military System-I</p> <p>(623C3)- (C) Indian War since Independence-I</p> <p>(62463) - ENV-306 - Environmental Biotechnology-1</p>



**T.Y.B.Sc. Sem. III /25**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Wednesday, 02.11.2011	<p style="text-align: center;"><b>Any Two out of Six Courses</b></p> <p>(611A3) -MT-337- (A) Operations Research</p> <p>(623D3)- DS-337- (A) Military Sociology</p> <p>(623E3) - (B) Defence Journalism</p> <p>(623F3) (C) Defence Preparedness of India</p>
Thursday, 03.11.2011	<p>(611E3)- MT-337- (B) Lattic Theory</p> <p>(623G3) DS-338- (A) Armed Conflict and Human Rights</p> <p>(623H3) (B) International Organisation and National Security</p> <p>(623J3) (C) International Law</p>
Friday, 04.11.2011	<p>(611F3) -MT-337- (C) C-Programming-I</p> <p>(623K3) DS-339 (A) Defence Management in India</p> <p>(623L3) (B) Internal Security of India</p> <p>(623M3) (C) India's Maritime Security</p>

**T.Y.B.Sc. Sem. III /26**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Saturday, 05.11.2011	<p>(611P3) MT-337 (D)Differential Geometry</p> <p><b>Vocational Paper V :</b></p> <p>(65653) Industrial Chemistry – Industrial Methods of Chemical Analysis</p> <p>(65753) Biotechnology - Plant Biotechnology</p> <p>(68053) Still Photography and Audio Visual Product – Video Recording and Playback Systems</p> <p>(68753) Computer Maintenance – Computer Computer/IT Service Management &amp; Entrepreneurship Development</p> <p>(68953) Seed Technology - Seed Pathology &amp; Entomology</p> <p>(68253) Industrial Microbiology – Pollution Control Technology</p> <p>(68153) Electronic Equipment &amp; Maintenance – Electronic Equipment troubleshooting and repairs</p>

**T.Y.B.Sc. Sem. III /27**

<b>DAY &amp; DATE</b>	<b>SUBJECT SEMESTER III TIME : 2.30 P.M. TO 4.30 P.M. 2008 Pattern</b>
Wednesday, 09.11.2011	<p>(611D3) MT-337 -(E) Combinatorics</p> <p><b>Vocational Paper VI :</b></p> <p>(65663) Industrial Chemistry – Inorganic and organic Based Industries</p> <p>(65763) Bio-Technology – Environmental Biotechnology &amp; Entrepreneurship</p> <p>(68063) Still Photography and Audio Product – Video Production</p> <p>(68763) Computer Maintenance – Network Concepts</p> <p>(68963) Seed Technology - Seed Farm Management, Processing &amp; Storage</p> <p>(68263) Industrial Microbiology - Animal and Plant Tissue Culture</p> <p>(68163) Electronic Equipment &amp; Maintenance - Electronic Instrumentation</p>
Friday, 11.11.2011	<p>(611N3) MT-337 -(F)Number Theory</p>

**Notes :**

1. The Practical examination of T.Y.B.Sc. will be conducted before theory Examination between 03.09.2011 & 24.09.2011.
2. The last examination of the T.Y.B.Sc. IV (2003 Pattern) will be held in October 2011.

Ganeshkhind,  
Pune-411007.  
Ref. No. XC/Sci./900  
Date: 07.09.2011.

**Dr. S.M. Ahire**  
**Controller of Examinations**