



॥ सा विद्या या विमुक्तये ॥

स्वामी रामानंद तीर्थ मराठवाडा विद्यापीठ, नांदेड

“ज्ञानतीर्थ” परिसर, विष्णुपुरी, नांदेड - ४३१६०६ (महाराष्ट्र)

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY NANDED

“Dnyanteerth”, Vishnupuri, Nanded - 431606 Maharashtra State (INDIA)

Established on 17th September 1994 – Recognized by the UGC U/s 2(f) and 12(B), NAAC Re-accredited with 'A' Grade

EXAMINATION SECTION (SCIENCE FACULTY)

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संदर्भ क्र.स्वारातीमवि/प्रात्यक्षिक परीक्षा/२०१६-१७/१८५ दि : २३/०२/२०१७

प्रति,
मा.प्राचार्य,
सर्व संलग्नित विज्ञान महाविद्यालये,
प्रस्तुत विद्यापीठ

विषय:— उन्हाळी २०१७ बी.एस्सी.प्रथम, द्वितीय व तृतीय वर्षाच्या प्रात्यक्षिक परीक्षे बाबत....

महोदय,

उपरोक्त विषयी आपणास कळविण्यात येते की, उन्हाळी-२०१७ च्या बी.एस्सी प्रथम व तृतीय वर्षाच्या प्रात्यक्षिक परीक्षा दि.०५.०३.२०१७ ते २०.०३.२०१७ या कालावधीत घेण्यात यावी.

द्वितीय वर्षाच्या प्रात्यक्षिक परीक्षेसाठी महाविद्यालयांनी थेंअरी परीक्षेचे वेळापत्रक पाहून प्रात्यक्षिक परीक्षेचे वेळापत्रक तयार करावे जेणेकरून थेंअरी व प्रात्यक्षिक परीक्षा एकाच दिवशी होणार नाहीत.

बहिस्थ परीक्षकांची यादी विद्यापीठाच्या संकेत स्थळावर प्रसिध्द करण्यात आलेली आहे त्याप्रमाणे प्रथम व द्वितीय वर्षासाठी एक व तृतीय वर्षासाठी दोन बहिस्थ परीक्षकास बोलावून प्रात्यक्षिक परीक्षा घेण्यात याव्यात. कुठल्याही परिस्थितीत बहिस्थ परीक्षक असल्याशिवाय प्रात्यक्षिक परीक्षा घेण्यात येऊ नये. जे बॅकलॉगचे विद्यार्थी प्रात्यक्षिक परीक्षा अनुतीर्ण झालेले असतील त्या विद्यार्थ्यांची सुध्दा प्रात्यक्षिक परीक्षा घेण्यात यावी.

परीक्षा संपल्याबरोबर (दोन दिवसांच्या आत) प्रात्यक्षिक परीक्षेच्या वेळापत्रकाची एक प्रत गुणयादी व उत्तरपुस्तिकेच्या बंडल परीक्षा विभागात सादर करावी. यानंतर कुठल्याही परिस्थितीत गुणयादया स्विकारल्या जाणार नाहीत. कृपया नोंद घ्यावी व हि बाब सर्व संबंधिताच्या निदर्शनास आणुन द्यावी.


परीक्षा नियंत्रक

टिप:— १) प्रथम वर्ष प्रथम सत्रासाठी CBCS पॅटर्न लागू झालेला असुन प्रात्यक्षिक परीक्षा ८० गुणाची व २० गुणाची अंतर्गत परीक्षा आहे व २० गुणाची अंतर्गत यादी ही थेंअरी परीक्षेच्या अंतर्गत यादी सोबत सादर करावी. कृपया याची नोंद घ्यावी

२) आउट ऑफ टर्म परीक्षा घेण्यापुर्वी विद्यापीठाची परवानगी घेणे आवश्यक आहे.

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

**FACULTY OF SCIENCE
RECOMMENDATION OF 32(5) (A) COMMITTEE FOR EXAMINATION
WINTER /SUMMER 2017
(Choice Based Credit System)**

SUBJECT: ZOOLOGY

CLASS: B.Sc. First year (Annual Pattern) PAPER NO.: V

PAPER TITLE: Practical (CBCS Pattern)

NO. OF EXAMINERS REQUIRED: 01 (External Examiners)

LIST OF EXAMINERS (A/M 2017)

SUBJECT: ZOOLOGY

List of Examiners of **NANDED DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Tamloorkar. H. L.	Yeshwant Mahavidyalaya, Nanded	9960217477	Examiner
2.	Dr. Lokhande M.	Indira Gandhi College, Cidco, Nanded.	9923473971	Examiner
3.	Dr. Nazam K. A.	Shankarrao Chavan College, Ardhapur	8446260362	Examiner
4.	Dr. Nanware S. S.	Yeshwant Mahavidyalaya, Nanded	9423401227	Examiner
5.	Dr. Lahane M.	Vasantrao Naik College, Nanded	9405382490	Examiner
6.	Dr. Mrs. Kadam M. S.	Yeshwant Mahavidyalaya, Nanded	9545624978	Examiner
7.	Dr. Mrs. J. U. Deshmukh	Pratibha Niketan Mahavidyalaya, Nanded	9421374563	Examiner
8.	Dr. Siddiqui M. S.	A. C. S. College, Naigaon	9420415504	Examiner
9.	Dr. Mrs. Biradar S.	S. A. S Mahavidyalaya, Mukhed	9405375117	Examiner
10.	Dr. Sanap N. P.	Sharad Chandra A.C.S. College, Naigaon	9423143802	Examiner

11.	Dr. Jayabhaye U. M.	Yeshwant Mahavidyalaya, Nanded	9420885788	Examiner
12.	Dr. Mrs. Jaiswal N. R.	Yeshwant Mahavidyalaya, Nanded	9423217594	Examiner
13.	Dr. Bhowate C. S.	N. E. S. Science College, Nanded	9423751026	Examiner
14.	Dr. Kulkarni M. Y.	N. S. B. College, Nanded	7588526968	Examiner
15.	Dr. Bhure D. B.	Yeshwant Mahavidyalaya, Nanded	8149407814	Examiner
16.	Dr. Dhondge R. S.	S. G. M., Loha	9822951558	Examiner
17.	Dr. Wadekar D. M.	S. A. Mahavidyalaya, Mukhed	9604162841	Examiner
18.	Dr. Bais U. M.	Indira Gandhi College, Cidco, Nanded	9923360828	Examiner
19.	Dr. Pawar S. K.	G. M. College, Kotgyal	9421759288	Examiner
20.	Dr. Chavan Arvind	D. B. College, Bhokar	9420775527	Examiner
21.	Dr. Srirame N. M.	Shivaji College, Kandhar	7387812653	Examiner
22.	Dr. Bhojar Vidya	N. M. College, Umari		Examiner
23.	Dr. Harkal A. B.	Renukadevi Mahavidyalaya, Mahur	9595957230	Examiner
24.	Dr. Deshmukh V. M.	Vasantrao Naik College, Nanded	9422174159	Examiner
25.	Dr. Magar R. S.	Datta Mahavidyalaya, Hadgaon	9420193924	Examiner
26.	Dr. Deshmukh D. C.	H. J. Patil Mahavidyalaya, Himayatnagar	9860822286	Examiner
27.	Dr. Bhupalwar S.	L.B.S. College, Dharmabad	9849877726	Examiners
28.	Dr. Kalyankar K.N.	L.B.S. College, Dharmabad	9823529001	Examiners
29.	Dr. Balkhande S.	D. B. College, Bhokar	9730159445	Examiners
30.	Dr. Jamkar D. V.	A.C.S. College, Shankarnagar	9822867901	Examiner

List of Examiners of **PARBHANI DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Jagtap H. S.	Shivaji College, Parbhani	9423717670	Examiner
2.	Dr. Rankhamb S.V.	Sonpeth College, Sonpeth	9423716493	Examiner
3.	Dr. Makhane H. D.	B. Raghunath College Parbhani	9922228669	Examiner
4.	Dr. Yeole Sachin	Shivaji College, Parbhani	9665484893	Examiner
5.	Dr. Shaikh I. M.	D.S.M. College, Jintur	9421353657	Examiner
6.	Dr. Thakre B. G.	D.S.M. College, Jintur	9403062808	Examiner
7.	Dr. Khadap R. M.	Nutan Mahavidyalaya, Selu	9421085549	Examiner
8.	Dr. Bele P. S.	A.S.C. Mahavidyalaya Gangakhed	9822842047	Examiner
9.	Dr. Khole A. B.	B. Raghunath College, Parbhani	9420888399	Examiner
10.	Dr. Surve P. R.	A. S. C. Mahavidyalaya, Gangakhed	9423958963	Examiner
11.	Dr. Mrs. Dabhade V. F.	Madhavrao Patil College, Palam	9421303724	Examiner
12.	Dr. Chavan P. N.	S.G.B.M., Purna	9420415756	Examiner
13.	Dr. Rathod S. R.	K. K. M. College, Manwat	9421858588	Examiner
14.	Dr. Kharat P. S.	Nutan Mahavidyalaya Selu	9404597358	Examiner

List of Examiners of **LATUR DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. M. N. Kolpuke	M. M. Mahavidyalaya, Nilanga	9423349792	Examiner
2.	Dr. Jadhav D. H.	MaharashtraMahavidyalaya, Nilanga.	9423341701	Examiner
3.	Dr. Shinde A. N.	Azad College , Ausa	9021350913	Examiner
4.	Dr. Thorat M. M.	Sanjeevani Mahavidyalaya, Chapoli	9763319430	Examiner
5.	Dr. Mrs. Phadke S.	Shivaji M ahavidyalaya, Renapur	9545010600	Examiner
6.	Dr. Mrs. Dhaswadikar U. S.	Shri Hawagiswami College, Udgir	9881754561	Examiner
7.	Dr. Kadam K. N.	Shri Kumarswami Mahavidyalaya, Ausa	9970129919	Examiner
8.	Dr. Solunke R. V.	D.S. College, Latur	9226224823	Examiner
9.	Dr. Rathod D. S.	Rajshree Shahu College, Latur	7720924930	Examiner
10.	Dr. Desai R. B.	M.G. M. Ahemadpur	9921590483	Examiner
11.	Dr. Shirshi Urmila	Shivaji College, Udgir	8855910190	Examiner
12.	Dr. Niture S. D.	Shivaji College, Udgir	7768926458	Examiner
13.	Dr. Pedge S. S.	Rashika Mahavidyalaya Devani	9921069283	Examiner
14.	Dr. Jadhav R. R.	Shivneri Mahavidyalaya Shirur Anantpal	9960135157	Examiner
15.	Dr. Kamble B. S.	Maharashtra Udaygiri College Udgir	9096230911	Examiner
16.	Dr. Shinde S. N.	Hawgi Swami Mahavidyalaya, Udgir	7385757517	Examiner
17.	Dr. Shette P. S.	Maharashtra Udaygiri College, Udgir	9404611331	Examiner
18.	Dr. Waghmare V. N.	M.B. College Latur	9860242746	Examiner

List of Examiners of **HINGOLI DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Kanwate V. S.	Nagnath College, Aundha	9822114833	Examiner
2.	Dr. Bhalerao S. S.	Bahirjismarak College, Basmat Nagar , Basmat	9890401113	Examiner
3.	Dr. Dhimdhime S. D.	Bahirjismarak College, Basmat Nagar , Basmat	9423705867	Examiner
4.	Dr. Joshi P. P.	Adarsh Mahavidyalaya, Hingoli	7588081822	Examiner
5.	Dr. Katore B. P.	Nagnath College, Aundha	9423738973	Examiner
6.	Dr. Waghmare N. V.	N.W. College, Akhada Balapur	9421489615	Examiner
7.	Dr. Shinde V. S.	Toshnival Mahavidyalaya, Sengaon	9422129122	Examiner

CHAIRMAN
PRO VICE-CHANCELLOR

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(DEAN)

MEMBER
CHAIRMAN (BOS)

MEMBER

FACULTY OF SCIENCE

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

**FACULTY OF SCIENCE
RECOMMENDATION OF 32(5) (A) COMMITTEE FOR EXAMINATION
WINTER /SUMMER 2017**

SUBJECT: ZOOLOGY

**CLASS: B.Sc. Third year (Annual Pattern) PAPER NO.: XVI and XVII
(A,B,C,D)**

PAPER TITLE: Practical

NO. OF EXAMINERS REQUIRED: 02 (External Examiners)

**List of Examiners of NANDED DISTRICT
LIST OF EXAMINERS (MARCH /APRIL 2017)
SUBJECT: ZOOLOGY**

List of Examiners of NANDED DISTRICT

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINE R/ MODERATOR
1.	Dr. Bhowate C. S.	N.E.S. Science College, Nanded	9423751026	Examiner
2.	Dr. Tamloorkar. H. L.	Yeshwant Mahavidyalaya, Nanded	9960217477	Examiner
3.	Dr. Nanware S.S.	Yeshwant Mahavidyalaya, Nanded	9423401227	Examiner
4.	Mr. Rao B. B.	Yeshwant Mahavidyalaya, Nanded	9028212131	Examiner
5.	Dr. Mrs. Jaiswal N. R.	Yeshwant Mahavidyalaya, Nanded	9423217594	Examiner
6.	Dr. Mrs. Malviya M. K.	Pratibha Niketan Mahavidyalaya, Nanded	9423442779	Examiner
7.	Dr. Bhure D. B.	Yeshwant Mahavidyalaya, Nanded	8149407814	Examiner
8.	Dr. Gore G. D.	Sant Gadage Maharaj Mahavidyalaya, Loha	9960707490	Examiner
9.	Dr. Jamkar D. V.	A.C.S. College, Shankarnagar	9822867901	Examiner
10.	Dr. Pawar S. K.	G.M. College, Kotgyal	9421759288	Examiner

11.	Dr. Maqdoom M.	B.P. College, Kinwat	8087007999	Examiner
12.	Dr. Kamble A.T.	B.P. College, Kinwat	9822313283	Examiner
13.	Dr. Deshmukh P. B.	N.E.S. Science College, Nanded	9422171187	Examiner
14.	Dr. Bhopulwar S.	L.B.S. College, Dharmabad	9849877726	Examiner
15.	Dr. Mrs. Kadam M. S.	Yeshwant Mahavidyalaya, Nanded	9545624978	Examiner
16.	Dr. Wadekar D. M.	S. A. Mahavidyalaya, Mukhed	9604162841	Examiner
17.	Dr. Pentawar S.	G.M. College, Kotgyal	9423440696	Examiner
18.	Dr. Sanap N. P.	Sharad Chandra A.C.S. College, Naigaon	9423143802	Examiner
19.	Dr. Shrirame N. M.	Shivaji College of Arts, Comm. & Science, Kandhar	7387812653	Examiner
20.	Dr. Kalyankar K. V.	Lal Bahadur Shastri Mahavidyalaya, Dharmabad, Dist. Nanded	9823529001	Examiner
21.	Dr. Mrs. Deshmukh J. U.	Pratibha Niketan Mahavidyalaya, Nanded	9421374563	Examiner
22.	Dr. Deshmukh V. M.	Vasantrao Naik College, Nanded	9422174159	Examiner
23.	Dr. Bais U. M.	Indira Gandhi College, Cidco, Nanded.	9923360828	Examiner
24.	Dr. Jaybhaye U. M.	Yeshwant Mahavidyalaya, Nanded	9420885788	Examiner
25.	Dr. Chavan Arvind	D.B. College Bhokar	9420775527	Examiner
26.	Dr. Bhojar Vidya	N.M.College Umari		Examiner
27.	Dr. Kulkarni M. Y.	N.S.B.College Nanded.	7588526968	Examiner
28.	Dr. Mrs. Biradar S.	S.A.S Mahavidyalaya, Mukhed	9405375117	Examiner

List of Examiners of **PARBHANI DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Chindurwar A. B.	K.K.M. College, Manwat	9423738145	Examiner
2.	Dr. Garad V. B.	D.S.M. College, Parbhani	9421391089	Examiner
3.	Dr. Shaikh I. M.	D.S.M. College, Jintur	9421353657	Examiner
4.	Dr. Barde R. D.	S.G.B. College, Purna	9923830592	Examiner
5.	Dr. Deshpande R. P.	Sharda Mahavidyalaya, Parbhani	9423759541	Examiner
6.	Dr. Mulgir M. T.	Sharda Mahavidyalaya, Parbhani	9423138997	Examiner
7.	Dr. Khadap R. M.	Nutan Mahavidyalaya, Selu	9421085549	Examiner
8.	Dr. Surve P. R.	A.S.C. Mahavidyalaya, Gangakhed	9423958963	Examiner
9.	Dr. Jagtap H. S.	Shivaji College, Parbhani	9423717670	Examiner
10.	Dr. Khole A. B.	B. Raghunath College, Parbhani	9420888399	Examiner
11.	Dr. Pawar S. B.	D.S.M. College, Parbhani	9823150268	Examiner
12.	Dr. Thakre B. G.	D.S.M. College, Jintur	9403062808	Examiner
13.	Dr. Bele P. S.	A.S.C. Mahavidyalaya Gangakhed	9822842047	Examiner
14.	Dr. Yeole Sachin	Shivaji College, Parbhani	9767027022	Examiner
15.	Dr. Makhane H. D.	B. Raghunath College Parbhani	9922228669	Examiner
16.	Dr. Kharat P. S.	Nutan Mahavidyalaya, Selu	9404597358	Examiner
17.	Dr. Rathod R. S.	K.K.M. College, Manwat	9421858588	Examiner
18.	Dr. Varsha Dabhade	Madhavrao Patil College, Palam		Examiner
19.	Dr. Rankhamb S. V.	Sonpeth College, Sonpeth	9423716493	Examiner

List of Examiners of **LATUR DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Solunke R. V.	D. S. College, Latur	9226224823	Examiner
2.	Dr. Waghmare V. N.	M. B. College, Latur	9860242746	Examiner
3.	Dr. Patil S. T.	Shivaji College, Udgir	02485256116	Examiner
4.	Dr. Shinde S. N.	Hawagiswami Mahavidyalaya, Udgir	9422941312	Examiner
5.	Dr. Munde A. V.	M. G. College, Ahmedpur	9423472438	Examiner
6.	Dr. Kolpuke M. N.	Maharashtra Mahavidyalaya, Nilanga.	9423349792	Examiner
7.	Dr. Jadhav D. H.	MaharashtraMahavidyalaya, Nilanga.	9423341701	Examiner
8.	Dr. Kamble B. S.	Maharashtra Udaygiri Mahavdiyalaya,Udgir.	9096230911	Examiner
9.	Dr. Mrs. Dhaswadikar U. S.	Shri Hawagiswami College, Udgir	9881754561	Examiner
10.	Dr. Kale S. S.	Shri Kumarswami Mahavidyalaya, Ausa	9423348758	Examiner
11.	Dr. Kadam K. N.	Shri Kumarswami Mahavidyalaya, Ausa	9970129919	Examiner
12.	Dr. Rathod D. S.	R. S. College, Latur	7720924930	Examiner
13.	Dr. Solunkhe	R. S. College, Latur		Examiner
14.	Dr. Shirsi Urmila K.	Shivaji College, Udgir	8855910190	Examiner
15.	Dr. Thorat M. M.	Sanjeevani Mahavidyalaya, Chapoli	9763319430	Examiner
16.	Dr. Shinde A. N.	Azad College, Ausa	9021350913	Examiner
17.	Dr. Phadke S. V.	Shivaji Mahavidyalaya, Renapur.	9595405010	Examiner
18.	Dr. Niture S. D.	Shivaji College, Udgir	7768926458	Examiner
19.	Dr. Shette P. S.	Maharashtra Udaygiri College, Udgir	9404611331	Examiner
20.	Dr. Munde A. S.	Sambhajirao Kendre Mahavidyalaya, Jalkot	7745004185	Examiner

21.	Dr. Desai R. P.	M. G. Mahavidyalaya, Ahmedpur	9921590483	Examiner
22.	Dr. Kirtane R. V.	Dayanand Science College, Latur	9422185834	Examiner
24.	Dr. Pedage S. S.	Rashika Mahavidyalaya, Devani	9921069283	Examiner

List of Examiners of **HINGOLI DISTRICT**

Sr. No.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBAER	TYPE OF APPOINTMENT CHAIRMAN/PAPER SETTER/EXAMINER/ MODERATOR
1.	Dr. Bhalerao S.S.	Bahirji Smarak M. Basmat Nagar	9890401113	Examiner
2.	Dr. Joshi P. P.	Adarsh Mahavidyalaya, Hingoli	7588081822	Examiner
3.	Dr. Salve B. S.	Adarsh Mahavidyalaya, Hingoli	9422742735	Examiner
4.	Dr. Kanwate V. S.	Nagnath College, Aundha	9822114833	Examiner
5.	Dr. Dhimdhime S. D.	Bahirji Smarak Mahavidyalaya, Vasmat.	9423705867	Examiner
6.	Dr. Waghmare Nitin	N.W. College, Akhada Balapur	9421489615	Examiner
7.	Dr. Shinde V.S.	Toshnival Mahavidyalaya, Sengaon	9422129122	Examiner
8.	Dr. Katore B.P.	Nagnath College, Aundha	9423738973	Examiner

CHAIRMAN
PRO VICE-CHANCELLOR

MEMBER
(DEAN)

MEMBER
CHAIRMAN (BOS)

MEMBER

FACULTY OF SCIENCE

Swami Ramanand Teerth Marathwada University Nanded
B. Sc. First Year Practical Examinations March 2017
Subject : Physics

List of the External Examiners

Sr. No.	Name of Thee Examiner	Address for comunication	Contact Details	Chairman /Examiner
1	Dr. Munde B. S.	B. S. College Vasmat	9850694955	Chairman
2	Dr. Duthde	Yeswant college Nanded		Examiner
3	Dr. Joshi M. A.	Science College Nanded		Examiner
4	Shri Chonde U. S	Shivaji College Kandhar	9823505644	Examiner
5	Shri Waghmare	S. A. S. Mukhed	9420073065	Examiner
6	Dr. Giri M. A.	Gramin College Vasntnagr mukhed		Examiner
7	Shri Mahewar R. B.	Shri Sant Gadge Maharaj College Loha	9420254656	Examiner
8	Dr. Chauvan A. G.	Lal Bahaddur ShashtriMahavidhyalaya, Dharmabad	9421761089	Examiner
9	Shri Jadhav R. R.	ACS College Shankarnagar	9923913215	Examiner
10	Chavan S. D.	Adaresh college Hingoli		Examiner
11	Shri Kapure	Gurubuddi Swami college Purna		Examiner
12	Shri Mugutkar	B. S. College Vasmat	9822476611	Examiner
13	Mrs. Sarika Jadhav	Sant Tukaram College Parbhani	9420884707	Examiner
14	Shri Shendkar	Sant Janbai College Gangakhed	7588117801	Examiner
15	Dr. Mistry	Shivaji College Parbhani		Examiner
16	Dr. Joshi R. A.	Shengaon college Shengaon	7775058884	Examiner
17	Dr. Santhosh Jadhav	DSM college Jintur		Examiner
18	Dr. Shivalkar K. N.	M. G. M. Ahmadpur	7588547259	Examiner
19	Dr. Fulmante	Sanjivani college Chapoli	9422658549	Examiner
20	Shri Wakade M. D.	Shevneri college S. Anantpal	9970620741	Examiner
21	Dr. Vagyra	Udaygari College Udgir		Examiner
22	Dr. Chaudhari M. M.	Maharashtra College Nilanga		Examiner
23	Dr. Nakade	Kumarswami College Ausa		Examiner
24	Dr. Ingle B. D.	Azad College Ausa		Examiner

25	Shri More	Sambhaji Kendre mahavidyalaya Jalkote		Examiner
26	Dr. B. D. Achole	Havgi Swami College Udgir		Examiner
27	Dr. Thakare L. N.	Dayanand sci. College Latur		Examiner
28	Dr. Dongrge S.	M.B. College Latur		Examiner
30	Dr. Rajkumar Neminiwar	B. P. College Kinwat		Examiner
31	Dr. Kumtekar	Nutan Coll ege Sailu		Examiner
32	Dr. Mahajajen G.	Shri Datt College Hadgaon	9881736664	Examiner
33	Dr. Kadampalle	Sanjivani College Chapoli		Examiner
34	Dr. Neminiwar B.	Bindu College Bhokar		Examiner
35	Dr. Manoj Khandekar	Udyagiri College Udgir	8421794860	Examiner

Chairman BOS Physics

Dr. Ravangave L. S.

Swami Ramanand Teerth Marathwada University Nanded
B. Sc. Second Year Practical Examinations March – April-2017

Subject: Physics

List Of the External Examiners

Sr. No.	Name of Thee Examiner	Address for comunication	Contact Details	Chairman /Examiner
1	Dr. A. M. Munde	S. A. S. Mukhed	9049248948	Chairman
2	Duthde	Yeswant college Nanded		Examiner
3	Dr. N. P. Pawar	Science College Nanded		Examiner
4	Shri Chonde U. S	Shivaji College Kandhar	9823505644	Examiner
5	Rajkumar Neminiwar	B. P. College Kinwat		Examiner
6	Dr. Giri M. A.	Gramin College Vasntnagr mukhed		Examiner
7	Shri Mahewar R. B.	Shri Sant Gadge Maharaj College Loha	9420254656	Examiner
8	Dr. Kanse K. S.	Lal Bahaddur ShashtriMahavidhyalaya, Dharmabad		Examiner
9	Dr. Tak A. S.	Lal Bahaddur ShashtriMahavidhyalaya, Dharmabad		Examiner
10	Dr. U. D. Joshi	NSB College Nanded		Examiner
11	Dr. Gachhe A. G.	Vasantrao College Nanded		Examiner
10	Chavan S. D.	Adaresh college Hingoli		Examiner
11	Shri Kapure	Gurubuddi Swami college Purna		Examiner
12	Shri Kalyankar A. N.	B. S. College Vasmat		Examiner
13	Mrs. Sarika Jadhav	Sant Tukaram College Parbhani		Examiner
14	Shri Shendkar	Sant Janbai College Gangakhed		Examiner
15	Dr. Mistry	Shivaji College Parbhani		Examiner
16	Dr. Joshi R. A.	Shengaon college Shengaon	7775058884	Examiner
17	Dr. Jadhav S. S,	DSM college Jintur		Examiner
18	Dr. Londhe C. T	M. G. M. Ahmadpur	7588547259	Examiner
19	Dr. Kadampure A. T	Sanjivani college Chapoli	9422658549	Examiner
20	Shri Wakade M. D.	Shevneri college S. Anantpal	9970620741	Examiner
21	Dr. Devshette P.	Havgi Swami College		Examiner

	M.	Udgir		
22	Dr. Chaudhari M. M.	Maharashtra College Nilanga		Examiner
23	Dr. Misal S. D	Kumarswami College Ausa		Examiner
24	Dr. Barote M. A.	Azad College Ausa		Examiner
25	Shri More	Sambhaji Kendre mahavidyalaya Jalkote		Examiner
26	Dr. B. D. Achole	Havgi Swami College Udgir		Examiner
27	Dr. Thakare L. N.	Dayanand sci. College Latur		Examiner
28	Dr. Dongrge	M.B. College Latur		Examiner
30	Dr. Bakshi	ACS College Shankarnagar		Examiner
31	Chalikwar P. A.	KKM Manwat		Examiner
32	Dr. Keshettee S. N.	Shivaji College Parbhani Gangakhed		Examiner
33	Dr. S. T. Nakade	Shri Kumarswami college Ausa	9665335406,	
34	Dr. Kadam C. J	Maharashtra College Nilanga		Examiner
35	Mr. B. D. Ingale	8805674023	Azad college, Ausa	Examiner
36	Dr. Neminiwar B.	Bindu College Bhokar		Examiner
37	Dr. Mahajajen G.	Shri Datt College Hadgaon	9881736664	Examiner
38	Dr. Rajkumar Neminiwar	B. P. College Kinwat		Examiner

Chairman BOS PHYSICS

Dr. L. S. Ravangave

Swami Ramanand Teerth Marathwada University Nanded

B. Sc. Third Year Practical Examinations March -17

Subject: Physics

List of the External Examiners

Sr. No.	Name of the Examiner	Designation	College Name	Mobile/Land Line Phone No.	Chairman/Examiner
1	Dr. C. J. Kadam	Head & Associ.Prof.	Maharashtra Mahavidhyalaya, Nilanga.	09421367747	Chairman
2	Dr. Zungaswami	Head & Associ.Prof	Udyagiri College Udgir		Examiner
3	Dr. M.A. Barote	Head & Associ.Prof.	Azad College , Ausa.	9422658959	Examiner
4	Shri. Misal S.D.	Head & Associ.Prof.	Shri. Kumar Swami Mahavidhyalaya, Ausa	--	Examiner
5	Dr. V.A. Chaudhary	Asst. Prof.	Dayanand Science College, Latur.	9890309211	Examiner
6	Dr. S. M . Dongarge	Head & Associ.Prof.	Shri.Mahatma Basveshwar College,Latur.	09860603999	Examiner
7	Dr. B. D. Ingle	Head & Associ.Prof.	Azad College Ausa.		Examiner
8	Dr. P.M.Devshette	Head & Associ.Prof.	Shri.Havggi Swami Mahavidhyalaya, Udgir.	09423351331	Examiner
9	Dr. B. D. Achole	Associ.Prof.	Hawgi swami college Udgir	08275490743	Examiner
10	Dr. C. T. Londhe	Ass.Prof.	Mahatma Gandhi College , Ahmedpur.	09850136648	Examiner
11	Dr. P.R. Mirkute	Associ. Prof.	Yeshwant Mahavidhyalaya, Nanded.	--	Examiner
12	Dr. Gachche	Asst. Prof.	Vasantrao Naik College Nanded.	08379830978	Examiner
13	Shri. N.P.Pawar	Head & Associ.Prof.	Science College , Nanded.	---	Examiner
14	Dr. K. S. Kanase	Associ. Prof.	Lal Bahaddur ShashtriMahavidhyalaya, Dharmabad.	09850924426	Examiner
15	Dr. Chauvan A. G.	Associ. Prof.	Lal Bahaddur ShashtriMahavidhyalaya, Dharmabad		Examiner
16	Dr. H. A. Bakshi	Head &	ACS College ,	09860058507	Examiner

		Associ.Prof.	Shankarnagar.		
17	Dr. Shinde S. A.	Head & Associ.Prof.	Sharad Chandra ACS College, Naigaon.	09503570486	Examiner
18	Shri Gawli P. G.	Associ.Prof.	Bahirji Smarak Mahavidhyalaya, Vasmat		Examiner
19	Dr. Annarao Munde	Head	Shahir Annbhau Sathe Mahavidhyalaya, Mukhed.	09420912866	Examiner
20	Dr. R. M. Dharamkare	Head & Associ.Prof.	ACS College , Hingoli.	09096854806	Examiner
21	Dr. Anil Kalyankar	Head & Associ.Prof.	Bahirji Smarak Mahavidhyalaya, Vasmat.	09423444319	Examiner
22	Shri.Mohan Sarwade	Head & Associ. Prof.	D.S.M. Parbhani	09860985571	Examiner
23	Mrs. Sarika. Jadhav	Head & Associ.Prof.	Sant Tukaram College , Parbhani.	09420884707	Examiner
24	Dr. S. K. Keshetti	Head & Associ.Prof.	Shri Shivaji College , Parbhani.	02452226085	Examiner
25	Dr. Mistry	Assi. Prof	Shri Shivaji College , Parbhani.		Examiner
26	Dr. Santosh jadhav	Associ.Prof.	DSM's ACS College, Jintur.	02457220134	Examiner
27	Dr. Shahane S.	Head & Asso. Prof	DSM's ACS College, Jintur		Examiner
28	Dr. Bhaskar Mundhe	Head & Associ.Prof.	KKM ACS College , Manwat.	09850694955	Examiner
29	R. Shaikh	Head & Associ.Prof.	Shri Gurubuddi Swami Mahavidhyalaya, Purna.	09990468877	Examiner
30	Dr. Baraswadkar P. M	Head & Associ.Prof.	Nagnath ACS College , Aundha Nagnath	09423900102	Examiner
31	Dr. Wakade	Head & Assi.Prof.	Shiwanari College Shirur(A)		Examiner
32	Dr. Ravangave L. S.	Head & Associ.Prof.	Shri Sant Gadge Maharaj College oha		Examiner

Chairman BOS Physics

Dr. L. S. Ravangave



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
CHOICE BASED CREDIT SYSTEM (CBCS) PATTERN FOR
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. FIRST YEAR

SUBJECT: BOTANY

COURSE NAME: CORE COURSE BOTANY PRACTICAL (CCBP)-I
(PRACTICAL PAPER-V: BASED ON THEORY PAPER-I, II, III&IV)

NUMBER OF EXAMINERS REQUIRED: ONE (From any District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Chavan RT	Tosniwal College, Sengaon Tq.Hingoli	8275949170	H	07
2.	Solanke NS	Adarsh College Hingoli	9421047491	H	12
3.	Waghmare A. A.	Tosniwal College, Sengaon Tq.Hingoli	7030245018	H	12
4.	Deshmukh PV	Nagnath ACS College Aundha	9422545414	H	17
5.	Narwade VT	BS Mahavidyalaya, Basmat	7798164967	H	17
6.	Maske VS	BS Mahavidyalaya, Basmat	9881297644	H	27
7.	Shinde JU	Shivneri Coolege, Sirur Anantpal	9423759926	L	02
8.	Biradar RG	SK College, Jalkot	9404573251	L	07
9.	Biradar RP	Shivaji College, Udgir	9421450949	L	07
10.	Chate SV	Shivaji college Udgior	9220516157	L	07
11.	Chatge VS	K. Rasika College, Deoni	7057620992	L	07
12.	Chavan SP	Sanjevani Mahavidyalaya, Chapoli	9403926448	L	07
13.	Dhaware Deepa A	Kumarswami College, Ausa	7588332930	L	07
14.	Dhole AC	Azad College Ausa	7385100121	L	07
15.	Gurme MK	Azad College Ausa	9175595118	L	07
16.	Raibole	Shivneri Coolege, Sirur Anantpal	9049849903	L	04
17.	Sawant KD	RS mahavidyalaya, Latur	9403591841	L	07
18.	Yadav SG	Shivaji mahavidyalaya, Renapur	9421413520	L	07
19.	Allapure RB	MU College, Udgir	9421092583	L	12
20.	Alne SK	Dayanand Science College Latur	9323735588	L	12
21.	Nagpurne VS	MU College, Udgir	9422612835	L	12
22.	Swami CS	Dayanand Science College Latur	9325295085	L	12
23.	Chate DB	M. Basweshwar Mahavidyalaya, Latur	9422471461	L	17
24.	Kadam JA	Kumarswami Mahavidyalaya, Ausa	9922019562	L	17
25.	Kadam RM	MG Mahavidyalaya, Ahmadpur	9422657976	L	17
26.	Kamble RA	HS College, Udgir	8421977173	L	17
27.	Lohare SD	HS College, Udgir	943660665	L	22
28.	Shendge GP	Maharashtra mahavidyalaya, Nilanga	9420436124	L	22
29.	Shinde SN	RS Mahavidyalaya, Latur	9422371543	L	27
30.	Waghmare BM	Maharashtra mahavidyalaya, Nilanga	8805065076	L	27
31.	Ganipurkar VD	Nutan Mahavidyalaya, Umri	9970621853	N	05
32.	Chavan VB	Science College Nanded	9421838283	N	07
33.	Chillawar R.G.	Yeshwant Mahavidyalaya, Nanded	9421841118	N	07

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
CHOICE BASED CREDIT SYSTEM (CBCS) PATTERN FOR
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. FIRST YEAR

SUBJECT: BOTANY

COURSE NAME: CORE COURSE BOTANY PRACTICAL (CCBP)-I
(PRACTICAL PAPER-V: BASED ON THEORY PAPER-I, II, III&IV)

NUMBER OF EXAMINERS REQUIRED: ONE (From any District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
34.	Dhole NA	DB Mahavidyalaya, Bhokar	9890456102	N	07
35.	Patil RB	SC Mahavidyalaya, Ardhapur	9850809934	N	07
36.	Patil SS	Sharadchandra ACS College, Naigaon	7385511332	N	07
37.	Sangvikar RV	N. E. S. Science College, Nanded	7057824110	N	07
38.	Tawde SV	DB Mahavidyalaya, Bhokar	7588081355	N	07
39.	Telang S.M.	Yeshwant Mahavidyalaya, Nanded	9822174684	N	07
40.	Vigigiri Dinesh	Renuka Devi College, Mahur	8897699211	N	07
41.	Raut SD	PN College, Nanded	9422714547	N	09
42.	Baig MMV	Yeshwant Mahavidyalaya, Nanded	9422170641	N	12
43.	Bangar MA	NSB College Nanded	9420827165	N	12
44.	Ingle SL	JP mahavidyalaya, Himaynagar	9421867989	N	12
45.	Jadhav AS	SSGM College Loha	9404825984	N	12
46.	Jadhav DM	Science College Nanded	9423413350	N	12
47.	Marathe V	Science College Nanded	7588565395	N	12
48.	Prassanarani	LBS Mahavidyalaya, dharmabad	9822779844	N	12
49.	Shinde S.L.	Yeshwant Mahavidyalaya, Nanded	7588151967	N	12
50.	Ghugle DS	NW College Akhada Balapur	8275948583	N	17
51.	Gorgile VT	SAS Mahavidyalaya, Mukhed	9421762073	N	17
52.	Ingle SS	NW College Akhada Balapur	9421866989	N	17
53.	Shendge KM	Shri Shivaji ACS College kandhar	9420847632	N	17
54.	Shinde SR	Baliram Patil ACS College, Kinwat	9420071958	N	17
55.	Aglave HR	SAS Mahavidyalaya, Mukhed	9970222262	N	22
56.	Aithal SV	Vai. DMD College, Degloor	9423437335	N	22
57.	Bhagure JC	Science College Nanded	9730681921	N	22
58.	Dhavle SD	SAS Mahavidyalaya, Mukhed	9423614704	N	22
59.	Gachande BD	Science College Nanded	9423760803	N	22
60.	Gawate AB	SSGM College Loha	9422542203	N	22
61.	Kadam SS	ACS College Shankarnagar	9404465949	N	22
62.	Kagne RM	Vasantrya Naik Mahavidyalaya, Nanded	9422996518	N	22
63.	Kankute S	Gramin ACS College, Vasantnagar ktgal	9960225652	N	22
64.	Bembrekar SK	Baliram Patil ACS College, Kinwat	9423657498	N	27
65.	Bodke S.S.	Yeshwant Mahavidyalaya, Nanded	8888530628	N	27
66.	Dhekale NM	ACS College Shankarnagar	9011609836	N	27

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
CHOICE BASED CREDIT SYSTEM (CBCS) PATTERN FOR
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. FIRST YEAR

SUBJECT: BOTANY

COURSE NAME: CORE COURSE BOTANY PRACTICAL (CCBP)-I
(PRACTICAL PAPER-V: BASED ON THEORY PAPER-I, II, III&IV)

NUMBER OF EXAMINERS REQUIRED: ONE (From any District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
67.	Gawai DU	Science College Nanded	9420538667	N	27
68.	More DR	LBS Mahavidyalaya, Dharmabad	9423626067	N	27
69.	Dakore HG	PN College Nanded	9420538920	N	28
70.	Mandge SV	SSGM College Loha	9404361138	N	28
71.	Reddy NJM	Shri Shivaji ACS College kandhar	9421840042	N	28
72.	Zare MK	Vasantnao Naik Mahavidyalaya, Nanded	9765863541	N	28
73.	Mrs. Sawant	KKM Manwat	9405391616	P	02
74.	Gadgile DP	Madhavrao Patil Mahavidyalaya, Palam	9545626392	P	07
75.	Kanthale PR	Nutan Mahavidyalaya, Selu	8275394075	P	07
76.	Patil Mukundraj	K.R W College, Sonpeth Dist Parbhani	7588017713	P	07
77.	Pawar VP	Madhavrao Patil College, Palam	9049086295	P	07
78.	Chamle DR	Sharda Mahavidyalaya, Parbhani	9422734327	P	12
79.	Dalvi SM	SGB Mahavidyalaya, Purna	9404571486	P	12
80.	Deshmukh RS	B Raghunath ACS College Parbhani	9422878299	P	12
81.	Dudbhate MM	Sant Janabai .ACS college, Gangakhed	8421642630	P	12
82.	Kadam KS	KKM Mahavidyalaya, Manwat	9890715718	P	12
83.	Khandare MS	DSM College, Jintur	9890855782	P	12
84.	Modak Sunil	B Raghunath ACS College Parbhani	9422192326	P	12
85.	Syed SV	Shivaji College, Parbhani	9422589984	P	12
86.	Gangasagar PY	SGB Mahavidyalaya, Purna	9921954866	P	17
87.	Kadam AS	DSM College, Jintur	9421389051	P	17
88.	Ladda RG	Sant Janabai.ACS college, Gangakhed	9404501511	P	17
89.	Panchal VH	Nutan Mahavidyalaya, selu	9421085576	P	17
90.	Rakhonde SP	Sant Tukaram AS College Parbhani	9850175189	P	17
91.	Shinde AB	Sharda Mahavidyalaya, Parbhani	9421790306	P	17
92.	Lakde HM	Gramin ACS College, Vasantnagar ktgal	9423139461	P	22
93.	Biradar SD	DSM College, Parbhani	9960874048	P	28
94.	Kareppa BM	DSM College, Parbhani	9422879127	P	28
95.	Pillai SG	Shivaji College, Parbhani	9423143743	P	30

(H: Hingoli, L: Latur, N: Nanded, P: Parbhani)

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
CHOICE BASED CREDIT SYSTEM (CBCS) PATTERN FOR
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. FIRST YEAR
SUBJECT: HORTICULTURE
COURSE NAME: CORE COURSE HORTICULTURE PRACTICAL (CCHP)-I
(PRACTICAL PAPER-V: BASED ON THEORY PAPER-I, II, III&IV)

NUMBER OF EXAMINERS REQUIRED: ONE (From any District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Mr.Patil SA	Yeshwant Mahavidyalaya,Nanded	9923412343	N	07
2.	Mrs.Gore AK	Yeshwant Mahavidyalaya,Nanded	9960088867	N	15
3.	Dr.Kadam SS	ACS College, Shankarnagar	9404465949	N	20
4.	Dr.Shinde SL	Yeshwant Mahavidyalaya,Nanded	7588151967	N	12
5.	Dr.Dalvi SM	SGBS Mahavidyalaya, Purna	9921101210	P	12

(N: Nanded, P: Parbhani)

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. SECOND YEAR

SUBJECT: BOTANY

NUMBER OF EXAMINERS REQUIRED: ONE (From Same District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Chavan RT	Tosniwal College, Sengaon Tq.Hingoli	8275949170	H	07
2.	Solanke NS	Adarsh College Hingoli	9421047491	H	12
3.	Waghmare A. A.	Tosniwal College, Sengaon Tq.Hingoli	7030245018	H	12
4.	Deshmukh PV	Nagnath ACS College Aundha	9422545414	H	17
5.	Narwade VT	BS Mahavidyalaya, Basmat	7798164967	H	17
6.	Maske VS	BS Mahavidyalaya, Basmat	9881297644	H	27
7.	Shinde JU	Shivneri Coolege, Sirur Anantpal	9423759926	L	02
8.	Biradar RG	SK College, Jalkot	9404573251	L	07
9.	Biradar RP	Shivaji College, Udgir	9421450949	L	07
10.	Chate SV	Shivaji college Udgior	9220516157	L	07
11.	Chatge VS	K. Rasika College, Deoni	7057620992	L	07
12.	Chavan SP	Sanjevani Mahavidyalaya, Chapoli	9403926448	L	07
13.	Dhaware Deepa A	Kumarswami College, Ausa	7588332930	L	07
14.	Dhole AC	Azad College Ausa	7385100121	L	07
15.	Gurme MK	Azad College Ausa	9175595118	L	07
16.	Raibole	Shivneri Coolege, Sirur Anantpal	9049849903	L	04
17.	Sawant KD	RS mahavidyalaya, Latur	9403591841	L	07
18.	Yadav SG	Shivaji mahavidyalaya, Renapur	9421413520	L	07
19.	Allapure RB	MU College, Udgir	9421092583	L	12
20.	Alne SK	Dayanand Science College Latur	9323735588	L	12
21.	Nagpurne VS	MU College, Udgir	9422612835	L	12
22.	Swami CS	Dayanand Science College Latur	9325295085	L	12
23.	Chate DB	M. Basweshwar Mahavidyalaya, Latur	9422471461	L	17
24.	Kadam JA	Kumarswami Mahavidyalaya, Ausa	9922019562	L	17
25.	Kadam RM	MG Mahavidyalaya, Ahmadpur	9422657976	L	17
26.	Kamble RA	HS College, Udgir	8421977173	L	17
27.	Lohare SD	HS College, Udgir	943660665	L	22
28.	Shendge GP	Maharashtra mahavidyalaya, Nilanga	9420436124	L	22
29.	Shinde SN	RS Mahavidyalaya, Latur	9422371543	L	27
30.	Waghmare BM	Maharashtra mahavidyalaya, Nilanga	8805065076	L	27
31.	Ganipurkar VD	Nutan Mahavidyalaya, Umri	9970621853	N	05
32.	Chavan VB	Science College Nanded	9421838283	N	07
33.	Chillawar R.G.	Yeshwant Mahavidyalaya, Nanded	9421841118	N	07
34.	Dhole NA	DB Mahavidyalaya, Bhokar	9890456102	N	07
35.	Patil RB	SC Mahavidyalaya, Ardhapur	9850809934	N	07
36.	Patil SS	Sharadchandra ACS College, Naigaon	7385511332	N	07
37.	Sangvikar RV	N. E. S. Science College, Nanded	7057824110	N	07
38.	Tawde SV	DB Mahavidyalaya, Bhokar	7588081355	N	07

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SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
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ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. SECOND YEAR

SUBJECT: BOTANY

NUMBER OF EXAMINERS REQUIRED: ONE (From Same District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
39.	Telang S.M.	Yeshwant Mahavidyalaya, Nanded	9822174684	N	07
40.	Vigigiri Dinesh	Renuka Devi College, Mahur	8897699211	N	07
41.	Raut SD	PN College, Nanded	9422714547	N	09
42.	Baig MMV	Yeshwant Mahavidyalaya, Nanded	9422170641	N	12
43.	Bangar MA	NSB College Nanded	9420827165	N	12
44.	Ingle SL	JP mahavidyalaya, Himaynagar	9421867989	N	12
45.	Jadhav AS	SSGM College Loha	9404825984	N	12
46.	Jadhav DM	Science College Nanded	9423413350	N	12
47.	Marathe V	Science College Nanded	7588565395	N	12
48.	Prassanarani	LBS Mahavidyalaya, dharmabad	9822779844	N	12
49.	Shinde S.L.	Yeshwant Mahavidyalaya, Nanded	7588151967	N	12
50.	Ghugde DS	NW College Akhada Balapur	8275948583	N	17
51.	Gorgile VT	SAS Mahavidyalaya, Mukhed	9421762073	N	17
52.	Ingle SS	NW College Akhada Balapur	9421866989	N	17
53.	Shendge KM	Shri Shivaji ACS College kandhar	9420847632	N	17
54.	Shinde SR	Baliram Patil ACS College, Kinwat	9420071958	N	17
55.	Aglave HR	SAS Mahavidyalaya, Mukhed	9970222262	N	22
56.	Aithal SV	Vai. DMD College, Degloor	9423437335	N	22
57.	Bhagure JC	Science College Nanded	9730681921	N	22
58.	Dhavle SD	SAS Mahavidyalaya, Mukhed	9423614704	N	22
59.	Gachande BD	Science College Nanded	9423760803	N	22
60.	Gawate AB	SSGM College Loha	9422542203	N	22
61.	Kadam SS	ACS College Shankarnagar	9404465949	N	22
62.	Kagne RM	Vasantrya Naik Mahavidyalaya, Nanded	9422996518	N	22
63.	Kankute S	Gramin ACS College, Vasantrya kthal	9960225652	N	22
64.	Bembrekar SK	Baliram Patil ACS College, Kinwat	9423657498	N	27
65.	Bodke S.S.	Yeshwant Mahavidyalaya, Nanded	8888530628	N	27
66.	Dhekle NM	ACS College Shankarnagar	9011609836	N	27
67.	Gawai DU	Science College Nanded	9420538667	N	27
68.	More DR	LBS Mahavidyalaya, Dharmabad	9423626067	N	27
69.	Dakore HG	PN College Nanded	9420538920	N	28
70.	Mandge SV	SSGM College Loha	9404361138	N	28
71.	Reddy NJM	Shri Shivaji ACS College kandhar	9421840042	N	28
72.	Zare MK	Vasantrya Naik Mahavidyalaya, Nanded	9765863541	N	28
73.	Mrs. Sawant	KKM Manwat	9405391616	P	02
74.	Gadgile DP	Madhavrao Patil Mahavidyalaya, Palam	9545626392	P	07
75.	Kanthale PR	Nutan Mahavidyalaya, Selu	8275394075	P	07
76.	Patil Mukundraj	K.R W College, Sonpeth Dist Parbhani	7588017713	P	07

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CLASS: B. Sc. SECOND YEAR

SUBJECT: BOTANY

NUMBER OF EXAMINERS REQUIRED: ONE (From Same District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
77.	Pawar VP	Madhavrao Patil College, Palam	9049086295	P	07
78.	Chamle DR	Sharda Mahavidyalaya, Parbhani	9422734327	P	12
79.	Dalvi SM	SGB Mahavidyalaya, Purna	9404571486	P	12
80.	Deshmukh RS	B Raghunath ACS College Parbhani	9422878299	P	12
81.	Dudbhate MM	Sant Janabai .ACS college, Gangakhed	8421642630	P	12
82.	Kadam KS	KKM Mahavidyalaya, Manwat	9890715718	P	12
83.	Khandare MS	DSM College, Jintur	9890855782	P	12
84.	Modak Sunil	B Raghunath ACS College Parbhani	9422192326	P	12
85.	Syed SV	Shivaji College, Parbhani	9422589984	P	12
86.	Gangasagar PY	SGB Mahavidyalaya, Purna	9921954866	P	17
87.	Kadam AS	DSM College, Jintur	9421389051	P	17
88.	Ladda RG	Sant Janabai.ACS college, Gangakhed	9404501511	P	17
89.	Panchal VH	Nutan Mahavidyalaya, selu	9421085576	P	17
90.	Rakhonde SP	Sant Tukaram AS College Parbhani	9850175189	P	17
91.	Shinde AB	Sharda Mahavidyalaya, Parbhani	9421790306	P	17
92.	Lakde HM	Gramin ACS College, Vasantnagar ktgal	9423139461	P	22
93.	Biradar SD	DSM College, Parbhani	9960874048	P	28
94.	Kareppa BM	DSM College, Parbhani	9422879127	P	28
95.	Pillai SG	Shivaji College, Parbhani	9423143743	P	30

(H: Hingoli, L: Latur, N: Nanded, P: Parbhani)

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CLASS: B. Sc. SECOND YEAR
SUBJECT: BOTANY

Skeleton Question Paper

PRACTICAL PAPER – X: PRACTICAL BASED ON THEORY PAPERS-VI & VIII

Time: Four hours

Maximum Marks: 50

-
- Note: -**
- (i) *Attempt all questions*
 - (ii) *Show your preparation to the examiner*
 - (iii) *Draw neat and well labelled diagrams wherever necessary*
-

- Q1.** Make a double stained permanent preparation, identify and describe the anatomical structures of the given specimen-A (Cycas pinna/ Pinus needle/ Gnetum stem for specimen-A may be given alternately to the students) **(14 marks)**
- Q2.** Describe, identify and classify the given Plant-B & C with floral formulae and floral diagrams (Flowering twigs of the easily available plants for specimen-B&C may be given alternately to the students) **(20 marks)**
- Q3.** Identify and describe the spots (Morphology-2 spots, Gymnosperm/Palaeobotany-1 spot) giving reasons **(06 marks)**
- Q4.**
- i. Record book **(05 marks)**
 - ii. Submission of Excursion report and Collection if any **(03 marks)**
 - iii. Viva-voce **(02 marks)**
-

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CLASS: B. Sc. SECOND YEAR
SUBJECT: BOTANY

Skeleton Question Paper

PRACTICAL PAPER – XI: PRACTICAL BASED ON THEORY PAPERS- VII & IX

Time: Four hours

Maximum Marks: 50

-
- Note: -**
- (i) *Attempt all questions*
 - (ii) *Show your preparation to the examiner*
 - (iii) *Draw neat and well labelled diagrams wherever necessary*
-

- Q1.** Make a temporary preparation of the given specimen-A. Identify and describe its internal structure. (The Maize stem / Sunflower stem / Dracaena stem / Achyranthus stem for specimen-A may be given alternately to the students) **(12 marks)**
- Q2.** Make a temporary preparation of the given specimen-B. Identify and describe its internal structures of ecological interest. (The Hydrilla stem/ Nymphaea petiole/ Casuarina stem / Nerium leaf for specimen-B may be given alternately to the students) **(12 marks)**
- Q3.** Determine minimum number of quadrants required/ frequency/ plant biomass/bulk density and porosity of soil/ with the help of data given **(08 marks)**
- Q4.** Identify and describe the given spots (Histology- 2, Embryology -1, and Ecology-1) giving reasons **(08 marks)**
- Q5.**
- i. Record book **(05 marks)**
 - ii. Submission of Excursion report and Collection if any **(03 marks)**
 - iii. Viva-voce **(02 marks)**
-

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CLASS: B. Sc. SECOND YEAR

SUBJECT: HORTICULTURE

NUMBER OF EXAMINERS REQUIRED: ONE (From any District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Mr.Patil SA	Yeshwant Mahavidyalaya,Nanded	9923412343	N	07
2.	Mrs.Gore AK	Yeshwant Mahavidyalaya,Nanded	9960088867	N	15
3.	Dr.Kadam SS	ACS College, Shankarnagar	9404465949	N	20
4.	Dr.Shinde SL	Yeshwant Mahavidyalaya,Nanded	7588151967	N	12
5.	Dr.Dalvi SM	SGBS Mahavidyalaya, Purna	9921101210	P	12

(N: Nanded, P: Parbhani)

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CLASS: B. Sc. SECOND YEAR
SUBJECT: HORTICULTURE
CLASS: B. Sc. SECOND YEAR
PRACTICAL PAPER-X: BASED ON THEORY PAPERS-VI & VII OF SEMESTER-III
Skeleton Question Paper

Time: Four hours

Maximum Marks – 50

-
- Note:**
- (i) Attempt all questions
 - (ii) Show your preparation to the examiner
 - (iii) Draw neat and well labeled diagrams wherever necessary
-

- | | | |
|-----|---|----|
| Q1. | Identify and describe the given vegetable specimen- A and B . | 08 |
| Q2. | Observe and interpret the effect of pre sowing seed treatments on germination of given vegetable specimen- C . | 08 |
| Q3. | Prepare a paper sketch and describe Drip / furrow / sprinkler irrigation system in a vegetable garden | 08 |
| Q4. | Prepare the given vegetable specimen- D for marketing | 08 |
| Q5. | Identify and describe given spots E, F, G and H
(Root/stem/leaf/flower/fruit vegetable) | 08 |
| Q6. | i. Record book | 05 |
| | ii. Submission | 03 |
| | iii. Viva-voce | 02 |

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CLASS: B. Sc. SECOND YEAR
SUBJECT: HORTICULTURE
PRACTICAL PAPER-XI: BASED ON THEORY PAPERS-VIII & IX OF SEMESTER-IV

Skeleton Question Paper

Time: Four hours

Maximum Marks – 50

-
- Note:**
- (i) Attempt all questions
 - (ii) Show your preparation to the examiner
 - (iii) Draw neat and well labeled diagrams wherever necessary
-

- | | | |
|-----|---|----|
| Q1. | Identify and describe the given ornamental plant specimen A and B . | 10 |
| Q2. | Prepare a layout plan of formal / informal garden | 12 |
| Q3. | Prepare garland / bouquet / flowerpots | 10 |
| Q4. | Prepare a medium for extending vase life of cut flowers | 08 |
| Q5. | i. Record book | 05 |
| | ii. Submission | 03 |
| | iii. Viva-voce | 02 |



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CLASS: B. Sc. THIRD YEAR

SUBJECT: BOTANY

NUMBER OF EXAMINERS REQUIRED: TWO (One from Same District and One From Out Of District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Chavan RT	Tosniwal College, Sengaon Tq.Hingoli	8275949170	H	07
2.	Solanke NS	Adarsh College Hingoli	9421047491	H	12
3.	Waghmare A. A.	Tosniwal College, Sengaon Tq.Hingoli	7030245018	H	12
4.	Deshmukh PV	Nagnath ACS College Aundha	9422545414	H	17
5.	Narwade VT	BS Mahavidyalaya, Basmat	7798164967	H	17
6.	Maske VS	BS Mahavidyalaya, Basmat	9881297644	H	27
7.	Shinde JU	Shivneri Coolege, Sirur Anantpal	9423759926	L	02
8.	Biradar RG	SK College, Jalkot	9404573251	L	07
9.	Biradar RP	Shivaji College, Udgir	9421450949	L	07
10.	Chate SV	Shivaji college Udgior	9220516157	L	07
11.	Chatge VS	K. Rasika College, Deoni	7057620992	L	07
12.	Chavan SP	Sanjevani Mahavidyalaya, Chapoli	9403926448	L	07
13.	Dhaware Deepa A	Kumarswami College, Ausa	7588332930	L	07
14.	Dhole AC	Azad College Ausa	7385100121	L	07
15.	Gurme MK	Azad College Ausa	9175595118	L	07
16.	Raibole	Shivneri Coolege, Sirur Anantpal	9049849903	L	04
17.	Sawant KD	RS mahavidyalaya, Latur	9403591841	L	07
18.	Yadav SG	Shivaji mahavidyalaya, Renapur	9421413520	L	07
19.	Allapure RB	MU College, Udgir	9421092583	L	12
20.	Alne SK	Dayanand Science College Latur	9323735588	L	12
21.	Nagpurne VS	MU College, Udgir	9422612835	L	12
22.	Swami CS	Dayanand Science College Latur	9325295085	L	12
23.	Chate DB	M. Basweshwar Mahavidyalaya, Latur	9422471461	L	17
24.	Kadam JA	Kumarswami Mahavidyalaya, Ausa	9922019562	L	17
25.	Kadam RM	MG Mahavidyalaya, Ahmadpur	9422657976	L	17
26.	Kamble RA	HS College, Udgir	8421977173	L	17
27.	Lohare SD	HS College, Udgir	943660665	L	22
28.	Shendge GP	Maharashtra mahavidyalaya, Nilanga	9420436124	L	22
29.	Shinde SN	RS Mahavidyalaya, Latur	9422371543	L	27
30.	Waghmare BM	Maharashtra mahavidyalaya, Nilanga	8805065076	L	27
31.	Ganipurkar VD	Nutan Mahavidyalaya, Umri	9970621853	N	05
32.	Chavan VB	Science College Nanded	9421838283	N	07
33.	Chillawar R.G.	Yeshwant Mahavidyalaya, Nanded	9421841118	N	07
34.	Dhole NA	DB Mahavidyalaya, Bhokar	9890456102	N	07
35.	Patil RB	SC Mahavidyalaya, Ardhapur	9850809934	N	07
36.	Patil SS	Sharadchandra ACS College, Naigaon	7385511332	N	07
37.	Sangvikar RV	N. E. S. Science College, Nanded	7057824110	N	07
38.	Tawde SV	DB Mahavidyalaya, Bhokar	7588081355	N	07

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NUMBER OF EXAMINERS REQUIRED: TWO (One from Same District and One From Out Of District)

LIST OF EXAMINERS:

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40.	Vigigiri Dinesh	Renuka Devi College, Mahur	8897699211	N	07
41.	Raut SD	PN College, Nanded	9422714547	N	09
42.	Baig MMV	Yeshwant Mahavidyalaya, Nanded	9422170641	N	12
43.	Bangar MA	NSB College Nanded	9420827165	N	12
44.	Ingle SL	JP mahavidyalaya, Himaynagar	9421867989	N	12
45.	Jadhav AS	SSGM College Loha	9404825984	N	12
46.	Jadhav DM	Science College Nanded	9423413350	N	12
47.	Marathe V	Science College Nanded	7588565395	N	12
48.	Prassanarani	LBS Mahavidyalaya, dharmabad	9822779844	N	12
49.	Shinde S.L.	Yeshwant Mahavidyalaya, Nanded	7588151967	N	12
50.	Ghuge DS	NW College Akhada Balapur	8275948583	N	17
51.	Gorgile VT	SAS Mahavidyalaya, Mukhed	9421762073	N	17
52.	Ingle SS	NW College Akhada Balapur	9421866989	N	17
53.	Shendge KM	Shri Shivaji ACS College kandhar	9420847632	N	17
54.	Shinde SR	Baliram Patil ACS College, Kinwat	9420071958	N	17
55.	Aglave HR	SAS Mahavidyalaya, Mukhed	9970222262	N	22
56.	Aithal SV	Vai. DMD College, Degloor	9423437335	N	22
57.	Bhagure JC	Science College Nanded	9730681921	N	22
58.	Dhavle SD	SAS Mahavidyalaya, Mukhed	9423614704	N	22
59.	Gachande BD	Science College Nanded	9423760803	N	22
60.	Gawate AB	SSGM College Loha	9422542203	N	22
61.	Kadam SS	ACS College Shankarnagar	9404465949	N	22
62.	Kagne RM	Vasantrya Naik Mahavidyalaya, Nanded	9422996518	N	22
63.	Kankute S	Gramin ACS College, Vasantrya kthal	9960225652	N	22
64.	Bembrekar SK	Baliram Patil ACS College, Kinwat	9423657498	N	27
65.	Bodke S.S.	Yeshwant Mahavidyalaya, Nanded	8888530628	N	27
66.	Dhekle NM	ACS College Shankarnagar	9011609836	N	27
67.	Gawai DU	Science College Nanded	9420538667	N	27
68.	More DR	LBS Mahavidyalaya, Dharmabad	9423626067	N	27
69.	Dakore HG	PN College Nanded	9420538920	N	28
70.	Mandge SV	SSGM College Loha	9404361138	N	28
71.	Reddy NJM	Shri Shivaji ACS College kandhar	9421840042	N	28
72.	Zare MK	Vasantrya Naik Mahavidyalaya, Nanded	9765863541	N	28
73.	Mrs. Sawant	KKM Manwat	9405391616	P	02
74.	Gadgile DP	Madhavrao Patil Mahavidyalaya, Palam	9545626392	P	07
75.	Kanthale PR	Nutan Mahavidyalaya, Selu	8275394075	P	07
76.	Patil Mukundraj	K.R W College, Sonpeth Dist Parbhani	7588017713	P	07

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SUBJECT: BOTANY

NUMBER OF EXAMINERS REQUIRED: TWO (One from Same District and One From Out Of District)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
77.	Pawar VP	Madhavrao Patil College, Palam	9049086295	P	07
78.	Chamle DR	Sharda Mahavidyalaya, Parbhani	9422734327	P	12
79.	Dalvi SM	SGB Mahavidyalaya, Purna	9404571486	P	12
80.	Deshmukh RS	B Raghunath ACS College Parbhani	9422878299	P	12
81.	Dudbhate MM	Sant Janabai .ACS college, Gangakhed	8421642630	P	12
82.	Kadam KS	KKM Mahavidyalaya, Manwat	9890715718	P	12
83.	Khandare MS	DSM College, Jintur	9890855782	P	12
84.	Modak Sunil	B Raghunath ACS College Parbhani	9422192326	P	12
85.	Syed SV	Shivaji College, Parbhani	9422589984	P	12
86.	Gangasagar PY	SGB Mahavidyalaya, Purna	9921954866	P	17
87.	Kadam AS	DSM College, Jintur	9421389051	P	17
88.	Ladda RG	Sant Janabai.ACS college, Gangakhed	9404501511	P	17
89.	Panchal VH	Nutan Mahavidyalaya, selu	9421085576	P	17
90.	Rakhonde SP	Sant Tukaram AS College Parbhani	9850175189	P	17
91.	Shinde AB	Sharda Mahavidyalaya, Parbhani	9421790306	P	17
92.	Lakde HM	Gramin ACS College, Vasantnagar ktgal	9423139461	P	22
93.	Biradar SD	DSM College, Parbhani	9960874048	P	28
94.	Kareppa BM	DSM College, Parbhani	9422879127	P	28
95.	Pillai SG	Shivaji College, Parbhani	9423143743	P	30

(H: Hingoli, L: Latur, N: Nanded, P: Parbhani)

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CLASS: B. Sc. THIRD YEAR
SUBJECT: BOTANY

PRACTICAL PAPER-XVI: BASED ON THEORY PAPER-XII & XIV (Compulsory)

Skeleton Question Paper

Time: Four hours

Maximum Marks: 50

Note: -

- (i) *Attempt all questions*
- (ii) *Show your preparation to the examiner*
- (iii) *Draw neat and well labeled diagrams wherever necessary*

- Q1.** Perform any one experiment (From practical exercise 1 to 5) **(10 marks)**
- Q2.** Perform any one experiment (From practical exercise 6 to 13) **(10 marks)**
- Q3.** Describe procedure and working of any one experiment (From practical exercise 14 to 17) **(06 marks)**
- Q4.** Perform any four microchemical tests (Protein-1, carbohydrates-1, Secondary metabolites-1, Organic acids-1) **(08 marks)**
- Q5.** Spotting- Two spots (Instrument- 1, Callus/Anther/Protoplast culture-1) **(06 marks)**
- Q6.** i. Record book **(05 marks)**
ii. Viva-voce **(05 marks)**



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CLASS: B. Sc. THIRD YEAR
SUBJECT: BOTANY

PRACTICAL PAPER-XVII: BASED ON THEORY PAPERS-XIII & XV: PLANT PATHOLOGY-I&II
(Optional-I)

Skeleton Question Paper

Time: Four hours

Maximum Marks: 50

Note: -

- (i) *Attempt all questions*
- (ii) *Show your preparation to the examiner*
- (iii) *Draw neat and well labeled diagrams wherever necessary*

Q1.	Calibrate the microscope and measure the size of given spore-A	08
Q2.	Identify and describe the symptoms and morphology of causal organism from the given specimen-B	08
Q3.	Identify and describe the symptoms of diseased specimen-C & D	08
Q4.	Identify, classify and describe any two spore types from exposed culture petriplates / aerobiological slide	08
Q5.	Identify and describe the given spots-F, G, H & I (F-equipment, G-toxin / enzyme, H-diseased plant material, I-plant protectant)	08
Q6.	a) Record book	05
	b) Submission	02
	c) Viva-voce	03



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: BOTANY

Skeleton Question Paper

Practical Paper-XVII: Based on theory papers-XIII & XV: Systematic Botany-I&II
(Optional-II)

Time: Four hours

Maximum Marks: 50

-
- Note: -**
- (i) *Attempt all questions*
 - (ii) *Show your preparation to the examiner*
 - (iii) *Draw neat and well labeled diagrams wherever necessary*
-

- | | | |
|------------|--|----|
| Q1. | Describe, identify and classify the given specimen- A & B to its respective families with floral formulae and floral diagrams | 16 |
| Q2. | Identify the given specimen- C up to species level using key and flora | 08 |
| Q3. | Make a temporary preparation of pollen grain of the given specimen- D identify and describe | 08 |
| Q4. | Identify and describe the spots- E, F, G and H as per the given instructions (2 spots on morphology; 2 spots on economic importance) | 08 |
| Q5. | a) Record book | 05 |
| | b) Submission | 02 |
| | c) Viva-voce | 03 |
-

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: BOTANY
Skeleton Question Paper

Practical Paper-XVII: Based on theory papers-XIII & XV: Applied Economic Botany-I&II
(Optional-III)

Time: Four hours

Maximum Marks: 50

Note: -

- (i) *Attempt all questions*
- (ii) *Show your preparation to the examiner*
- (iii) *Draw neat and well labelled diagrams wherever necessary*

- | | | |
|------------|--|-------------------|
| Q1. | Perform any one experiment (From practical exercise 1 to 4) | (10 marks) |
| Q2. | Perform any one experiment (From practical exercise 5 to 8) | (10 marks) |
| Q3. | Perform any one experiment (From practical exercise 9 to 12) | (10 marks) |
| Q4. | Spotting: Five Spots (From practical exercise 1 to 12) | (10 marks) |
| Q5. | i. Record book | (05 marks) |
| | ii. Viva-voce | (05 marks) |



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: BOTANY

Skeleton Question Paper

Practical Paper-XVII: Based on theory papers-XIII & XV: Herbal Technology-I&II
(Optional-IV)

Time: Four hours

Maximum Marks: 50

Note: -

- (i) *Attempt all questions*
- (ii) *Show your preparation to the examiner*
- (iii) *Draw neat and well labelled diagrams wherever necessary*

- Q1.** Perform any one experiment (From practical exercise 1 to 3) **(10 marks)**
- Q2.** Perform any one experiment (From practical exercise 4 to 5) **(10 marks)**
- Q3.** Perform any one experiment (From practical exercise 6 to 7) **(10 marks)**
- Q4.** Spotting: Five Spots (From practical exercise 1 to 7) **(10 marks)**
- Q5.** i. Record book **(05 marks)**
ii. Viva-voce **(05 marks)**



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: HORTICULTURE

NUMBER OF EXAMINERS REQUIRED: TWO (One from same district and one from out of district)

LIST OF EXAMINERS:

Sr. No.	Name	Address	Mobile No.	District	Teaching Experience (Year)
1.	Mr.Patil SA	Yeshwant Mahavidyalaya,Nanded	9923412343	N	07
2.	Mrs.Gore AK	Yeshwant Mahavidyalaya,Nanded	9960088867	N	15
3.	Dr.Kadam SS	ACS College, Shankarnagar	9404465949	N	20
4.	Dr.Shinde SL	Yeshwant Mahavidyalaya,Nanded	7588151967	N	12
5.	Dr.Dalvi SM	SGBS Mahavidyalaya, Purna	9921101210	P	12

(N: Nanded, P: Parbhani)

Chairman, BOS in Botany
(Dr. Shirang S.Bodke)



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: HORTICULTURE
PRACTICAL PAPER-XVI: BASED ON THEORY PAPERS-XII & XIII OF SEMESTER-V

Skeleton Question Paper

Time: Four hours

Maximum Marks – 50

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- Note:**
- (i) Attempt all questions
 - (ii) Show your preparation to the examiner
 - (iii) Draw neat and well labeled diagrams wherever necessary
-

- | | | |
|-------------|---|-----------|
| Q1. | Identify and describe the given spices and condiments crops samples of Specimen- A and B | 10 |
| Q.2. | Identify and describe the given Medicinal and Aromatic plant samples of the Specimen- C and D | 10 |
| Q.3. | Detect the essential oil /micro-chemical tests of the given Specimen- E | 10 |
| Q.4. | a. Record book | 10 |
| | b. Excursion Report & Submissions | 05 |
| | c. Viva-voce | 05 |



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
Faculty of Science
Under Graduate (UG) Programmes
ANNUAL PATTERN PRACTICAL EXAMINATIONS, SUMMER 2017

CLASS: B. Sc. THIRD YEAR
SUBJECT: HORTICULTURE
PRACTICAL PAPER-XVII: BASED ON THEORY PAPERS-XIV & XV OF SEMESTER-VI

Skeleton Question Paper

Time: Four hours

Maximum Marks – 50

-
- Note:**
- (i) Attempt all questions
 - (ii) Show your preparation to the examiner
 - (iii) Draw neat and well labeled diagrams wherever necessary
-

- | | | |
|-------------|---|-----------|
| Q1. | Estimate the Total Soluble Solids (TSS)/Acidity/Reducing Sugars/Total Sugars of given fruit sample of the Specimen- A | 10 |
| Q.2. | Prepare the given fruit product of the given sample of Specimen-B | 10 |
| Q.3. | Prepare the given vegetable product of the given sample of Specimen-C | 10 |
| Q.4. | a. Record book | 10 |
| | b. Excursion Report & Submissions | 05 |
| | c. Viva-voce | 05 |

S.R.T.M.University, Nanded.

SUBJECT: FISHERY SCIENCE.

PRACTICAL EXAM SUMMER 2016.

EXAMINER'S LIST

B. Sc First Year

Nanded Dist:

1. Dr. K. S. Shilewar-Science College,Nanded.9552255288.
2. Dr. C. S. Bhowate-Science College,Nanded.9423751026.

Parbhani Dist:

1. Dr. J. M. Gaikwad-Shri Shivaji College,Parbhani.9422192425.
2. Dr. S. D. Ahirrao-Shri Shivaji College,Parbhani.9421084346.
3. Dr. S.U. kadam-D. S. M. College,Jintur.9422924650.
4. Dr. N.G.Popatwar-D.S.M.College,Jintur.9423444857.

Latur Dist:

1. Dr. R. R. Maske .Dyanand Science College,Latur.
2. Dr. S. S.Korde.-Azad College,Ausa.8421655149.

Hingoli Dist :

1. Dr. D. W. Patil Toshniwal College, Sengaon.8275947811
2. Dr. S. S. Markad Toshniwal College, Sengaon.9421583693

B. Sc. Second Year

Nanded Dist :

1. Dr. K. S Shilewar-Science College,Nanded.9552255288.
2. Dr. C. S. Bhowate-Science College,Nanded.9423751026.

Parbhani Dist:

1. Dr .J. M. Gaikwad-Shri Shivaji College,Parbhani.9422192425.

2. Dr. S. D. Ahirrao-Shri Shivaji College,Parbhani.9421084346.
3. Dr. S.U. Kadam-D. S. M. College,Jintur.9422924650.
4. Dr. N.G.Popatwar-D.S.M.College,Jintur.9423444857.

Latur Dist:

1. Dr. R. R. Maske .Dyanand Science College,Latur.
2. Dr. S. S.Korde.-Azad College,Ausa.8421655149

Hingoli Dist :

1. Dr. D. W. Patil Toshniwal College, Sengaon.8275947811
2. Dr. S.S. Markad Toshniwal College, Sengaon.9421583693

B. Sc. Third Year

Nanded Dist:

1. Dr. K. S. Shilewar-Science College,Nanded.9552255288.
2. Dr. C. S. Bhowate-Science College,Nanded.9423751026.

Parbhani Dist:

1. Dr. J. M. Gaikwad-Shri Shivaji College,Parbhani.9422192425.
2. Dr. S. D. Ahirrao-Shri Shivaji College,Parbhani.9421084346.
3. Dr. S.U. Kadam-D. S. M. College,Jintur.9422924650.
4. Dr. N.G.Popatwar-D.S.M.College,Jintur.9423444857.

Latur Dist:

1. Dr. R. R. Maske Dyanand Science College,Latur.
2. Dr. S. S. Korde.-Azad College,Ausa.8421655149.

Hingoli Dist :

1. Dr. D. W. Patil Toshniwal College, Sengaon.8275947811
2. Dr. S. S. Markad Toshniwal College, Sengaon.9421583693

**LIST OF PRACTICAL EXAMINERS IN THE SUBJECT OF
ELECTRONICS FOR B.Sc. Ist, IInd & IIIrd year -2016**

SR.NO.	NAME AND ADDRESS	CONTACT NO.
	NANDED DITRICT	
1	Dr. Fugare M.K. Science College, Nanded	9850869729
2	Prof. Joshi M.A. Science College, Nanded	9420416085
3	Dr. Joshi U.D. N.S.B. College, Nanded	9850826030
4	Dr. Jadhav A.N. Yashwant Mahavidyalya, Nanded	9423140748
5	Prof. Dhutade G. Yashwant Mahavidyalya, Nanded	9890044270
6	Prof. Mrs. Rathod B.N. Indira Gandhi Senior College, CIDCO, New Nanded.	
7	Dr. Khule R.N. Shri. Shivaji Arts, Commerce, Science College, Kandhar Dist. Nanded.	9860870032
8	Prof. Agrawal S.T. Shri. Shivaji Arts, Commerce, Science College, Kandhar Dist. Nanded.	9420434091
9	Dr. Chavan A.G. Lal Bahadur Shastri, Mahavid. Dharmabad Dist. Nanded.	9421757130
10	Dr. Joshi Y.S. L.B.S. College, Dharmabad Dist. Nanded.	9405362172
11	Dr. Tak A.S. L.B.S. College, Dharmabad Dist. Nanded.	9325028296

12	Dr. Kanse L.B.S. College, Dharmabad Dist. Nanded.	9850924426
PARBHANI DISTRICT		
13	Dr. Jadhav A.E. D.S.M. Parbhani	9423143389
14	Dr. Khanale Prakash D.S.M. Parbhani	9422176740
15	Dr. Sadavarte M.P. D.S.M. Parbhani	
16	Prof. Zingre R.P. Shri. Shivaji College, Parbhani	9422995566
17	Dr. Yenorkar S.M. Shri. Shivaji College, Parbhani	7276532176
18	Dr. Gore S.K. D.S.M., Jintur Dist. Parbhani	7588162148
19	Dr. Kawle R.S. D.S.M., Jintur Dist. Parbhani	9545231648
20	Prof. Shete S.B. Shri. G.B.S. College, Purna Dist. Parbhani	9422557685
HINGOLI DISTRICT		
21	Prof. Lathi A.R. A.E.S. Adarsh College, Hingoli	9422851172
22	Dr. Achole P.D. Adarsh College, Hingoli	9850854374
23	Dr. Bongane B.K. B.S. College, Basmath Dist. Hingoli	9049248948
24	Prof. Kalyankar A.N. B.S. College, Basmath Dist. Hingoli	9423444319
25	Prof. Mugatkar A.B. B.S. College, Basmath Dist. Hingoli	9822476611

	LATUR DISTRICT	
26	Dr. Dargad J.S. D. Science College, Latur	
27	Dr. Thakare L.V. Dy. Science College, Latur	
28	Dr. Kendre R.N. Rajashri Shahu Mah. Latur	
29	Dr. Birajdar U.V. Mahatma Bas College, Latur	9881516025
30	Dr. Pawar V.P. M.U. College, Udgir	9420327747
31	Prof. Swami M.B. M.U. College, Udgir	9423351320
32	Dr. Shere I.G. Shri. Havgi Swami College, Udgir	7709672319
33	Dr. Suryavanshi D.B. Shri. Havgi Swami College, Udgir	9423307098
34	Dr. Vyaghra V.R. Shivaji College, Udgir	
35	Prof. Tingre G.D. Azad College, AUSA	9890497718
36	Dr. Suryavanshi R.V. Azad College, AUSA	9890797724
37	Dr. Rathod K.N. D. Science College, Latur	9960115434
38	Dr. Musmade A.U. Rajashri Shahu M. Latur	

Chairman, B.O.S.



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Subject: Chemistry

Paper Title: Laboratory Course

Paper No.: All papers

District-Nanded

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
1	Dr. S. N. Kabadi	A.C.S. College, Shankar Nagar	9423306181	sambhaji456@gmail.com
2	Dr. K. G. Karanange	B. P. Mahavidyalaya, Kinwat	7588431008	khushalgk@rediffmail.com
3	Dr. P. B. Gujrati	Shivaji College, Kandhar	9422166848	pradipgujrathi@gmail.com
4	Dr. B. N. Raut	Shivaji College, Kandhar	9423656350	
5	Mrs. Nunus Maggie	Shivaji College, Kandhar	8055944579 8855944579	
6	Dr. S.V. Shinde	P. N. Mahavidyalaya, Nanded	9422170185	sv_shinde97@rediffmail.com
7	Dr. S. P. Vertale	Yeshwant Mahavidyalaya, Nanded	9404468557/ 9822430549	spvertale@gmail.com
8	Mrs. S. B. Garud	V. N. College, Varsani, Nanded	9730487370/ 9970795043	sunita.garud1@gmail.com
9	Dr. M.S. Bacchewar	S.A.S. Mahavidyalaya, Mukhed	96652598471 /9689349844	maheshbachwar@gmail.com
10	Dr. M. M. Kendre	S. G. M. Mahavidyalaya, Loha	9960907780	
11	Mr. G.V. Panchal	A.C.S. College, Shankar Nagar	9403123179/ 9423615521	govind.panchal21@gmail.com
12	Mr. V. T. Khedkar	A.C.S. College, Shankar Nagar	9403527513	khedkarvt@gmail.com
13	Mr. R. R. Vidule	S. G. M. Mahavidyalaya, Loha	8007840827	
14	Mr. V. K. Jadhav	D. M. Mahavidyalaya, Degloor	9423437301	patilv230@gmail.com
15	Dr. V. N. Bhosale	Yeshwant Mahavidyalaya, Nanded	9403067252/ 9881204069	bhosalevn@rediffmail.com
16	Dr. S. B. June	Yeshwant Mahavidyalaya, Nanded	7588525265	muktai_junne2008@yahoo.co.in
17	Dr. S. B. Shirsat	Yeshwant Mahavidyalaya, Nanded	9890374904	
18	Dr. N. A. Bashir	Yeshwant Mahavidyalaya, Nanded	8275243848	dr.baseer.nanded@gmail.com
19	Dr. Mrs. S.N. Kalyankar	Yeshwant Mahavidyalaya, Nanded	9860608914	
20	Dr. Mrs. K. L. Kendre	Yeshwant Mahavidyalaya, Nanded	9404663696	kavitalkendre@gmail.com



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Paper Title: Laboratory Course

Subject: Chemistry

Paper No.: All papers

District-Nanded

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
21	Dr. G. S. Waghmare	Yeshwant Mahavidyalaya, Nanded	9850783362	
22	Dr. A. T. Shinde	NES's Science college, Nanded	9423534248	dr.atshinde@gmail.com
23	Mr. S. L. Nakkalwar	L.B.S. Mahavidyalaya, Dharmabad	9970134732	
24	Dr. J. S. Jadhav	N. S. B. College, Nanded	9822659324	
25	Dr. S. R. Pingalkar	NES's Science College, Nanded	9763123146	drsanjaypingalkar@gmail.com
26	Dr. A. S. Bansode	NES's Science college, Nanded	9420848612	
27	Dr. D. K Swami	P. N. Mahavidyalaya, Nanded	8087264595	swamy_deelip@rediffmail.com
28	Dr. B. N. Muthal	Shivaji College, Kandhar	9421024732	
29	Mr. R. R. Vidule	S. G. M. Mahavidyalaya, Loha	8007840827	
30	Dr. V. N. Bhosale	Yeshwant Mahavidyalaya, Nanded	9403067252/ 9881204069	bhosalevn@rediffmail.com
31	Dr. S. B. June	Yeshwant Mahavidyalaya, Nanded	7588525265	muktai_junne2008@yahoo.co.in
32	Dr. A. P. Bhalerao	B. P. Mahavidyalaya, Kinwat	9850241664	
33	Mr. N. S. Kamminwar	L. B. S. Mahavidyalaya, Dharmabad	7588524845	nskaminwar@gmail.com
34	Mr. S. S. Ajanikar	S. C. College, Naigaon	7709784818	Anjanikar@gmail.com
35	Dr. A. B. Chidrawar	Degloor College, Degloor	8855050425/ 9423140093	anilchidrawar74@gmail.com
36	Dr. S. M. Reddy	G.M.V. Kotgyal, Tq. Mukhed	9420539063/ 9168539063	smpreddy7@gmail.com
37	Shri H. M. Kasralikar	L.B.S. Mahavidyalaya, Dharmabad	9860586756	
38	Dr. R.V. Pokalwar	Degloor College, Degloor	9545055567	rajupokalwar@rediffmail.com
39	Mr. U. V. Ambulgekar	S.A.S. Mahavidyalaya, Mukhed	9423440576	
40	Mrs. A. P. Itkapalle	Gramin Mahavidyalaya, Vasant Nagar, Kotgyal	7588426494	



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Paper Title: Laboratory Course

Subject: Chemistry

Paper No.: All papers

District-Nanded

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
41	Mr. D .C. Pawar	Gramin Mahavidyalaya, Vasant Nagar, Kotgyal	7350351040	devidasP13@gmail.com
42	Mr. S. S.Tiwade	D. B. College, Bhokar	9404814978	sachintiwade7@gmail.com
43	Mr. V. A. Tidke	D. M. Mahavidyalaya, Degloor	7620747631	vishwatidke@gmail.com
44	Dr. S. V. Khansole	Indira Gandhi Senior College, Cidco, Nanded	9960128127	sandeepkhansole@yahoo.com
45	Mr. D. B. Kadam	Indira Gandhi Senior College, Cidco, Nanded	9960689803	
46	Shri M. G. Wakhradkar	Hutatma Jaywantrao Patil College, Himayatnagar	8007928003	swamimahya@gmail.com
47	Mr. Yadav Mukesh	Hutatma Jaywantrao Patil College, Himayatnagar	9975399901	mukeshyadav2011@rediffmail.Com
48	Mr. P. N. Ubale	Kai. Babasaheb Deshmukh Gorthekar, College Umri	9404466447	prashantubale.2009@rediffmail.Com
49	Mr. A. A. Lande	Late Gyanbaji Keshve Sr. College, Mahur	9604497208	awadhutlande@gmail.com
50	Dr. S. G. Shirodkar	N. S. B. College, Nanded	9421928129	shirodkar_1@hotmail.com
51	Dr. P. A. Kulkarni	Yeshwant Mahavidyalaya, Nanded	08605261169	mastcpl14@gmail.com
52	Dr. M. R. Mali	Yeshwant Mahavidyalaya, Nanded	9420539576	maheshmalir@gmail.com
53	Dr. A. T. Suryawanshi	Yeshwant Mahavidyalaya, Nanded	9430486536	
54	Dr. N. M. Sontakke	NES's Science college, Nanded	9860062041	
55	Dr. Mrs. M. V. Deshmukh	NES's Science college, Nanded	9420849129	
56	Dr. N. T. Kandhare	S. G. M. Mahavidyalaya, Loha	9423800091	
57	Dr. D. R. Munde	NES's Science college, Nanded	9421756689	dashrathmunde@rediffmail.com



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Subject: Chemistry

Paper Title: Laboratory Course

Paper No.: All papers

District-Hingoli

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
1	Dr. D. D. Kadam	N. W. Mahavidyalaya, Akhada Balpur	9420238131	dadasaheb2408@gmail.com
2	Dr. M. B. Swami	Bahirji Smarak Mahavidyalaya, Vasmat	9421385198	maheshswami123@yahoo.com
3	Dr. A. S. Kulkarni	Bahirji Smarak Mahavidyalaya, Vasmat	9420886667 / 9881980620	as_kulkarni123@rediffmail.com
4	Mr. V. B. Rathod	Nagnath College, Aundha Nagnath	9420417299	vbrathod2015@gmail.com
5	Shri P. P. Bhujbal	N. W. Mahavidyalaya, Akhada Balpur	9421489913	prashantbhujbal1122@gmail.com
6	Mr. A . V. Pawde	Adarsha College, Hingoli	9552542516 / 9623123933	pawade_avinash@yahoo.co.in
7	Dr. S. S. Wagh	Adarsha College, Hingoli	9822196805	
8	Dr. A. K. Pathan	Adarsha College, Hingoli	8806268184,	khanchemi@gmail.com
9	Dr. S. S. Gawande	Bahirji Smarak Mahavidyalaya, Vasmat	9657202029	dr.gawande@shrilabs.orgin
10	Dr. Y. S. Nalwar	Toshniwal College, Sengaon	9421292020 / 7507777500	ysnalwar@yahoo.com
11	Mr. T. U. Kendre	Toshniwal College, Sengaon	8275005646	
12	Mr. P. R. Totawar	Nagnath College, Aundha Nagnath.	9960628225	totawar.pradeep@gmail.com



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Subject: Chemistry

Paper Title: Laboratory Course

Paper No.: All papers

District-Latur

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
1	Dr. J. K. Dawale	Maharashtra Mahavidyalaya, Nilanga	9404559746	jkdawle@gmail.com
2	Dr. S. G. Kulkarni	Maharashtra Mahavidyalaya, Nilanga	9421450268	sureshkulkarnirocks@gmail.com
3	Dr. P. Chandrashekhar	Maharashtra Mahavidyalaya, Nilanga	8087984926	
4	Mr. Y. P. Sarnikar	Dayanand Science College, Latur	9423345365	sarnikaryp@gmail.com
5	Dr. B. B. Sanap	R. S. College, Latur	9421453596	
6	Dr. S. N. Ibate	Dayanand Science College, Latur	9423719339	
7	Mr. A. S. Tekale	Shivaji Mahavidyalaya, Udgir	9423440540	tananta@rediffmail.com
8	Mr. S. T. Kolikar	Shri Hawagiswami College, Udgir	9420871025	
9	Dr. N. A. Kedar	Dayanand Science College, Latur	9423350653	nak12572@gmail.com
10	Dr. S. G. Patil	M. U. Mahavdiyalaya, Udgir	9423167947	sg_patil123rediffmail.com
11	Mr. S. N. Hallale	M. U. Mahavdiyalaya, Udgir	7588390401	snhallale@yahoo.com
12	Mr. H. A. Tirpude	Shivaji Mahavidyalaya, Udgir	9423776744	tirpudeha@gmail.com
13	Mr. M. B. Zade	Azad Mahavidyalaya, Ausa	9421368538	mbzade71@gmail.com
14	Mrs. M. B. Motegaonkar	Azad Mahavidyalaya, Ausa	9960368559	
15	Mr. R. S. Shinde	Dayanand Science College, Latur	9850150872	
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SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Subject: Chemistry

Paper Title: Laboratory Course

Paper No.: All papers

District-Latur

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
17	Dr. Smt. N. S. Korde	Dayanand Science College, Latur	9822109136	
18	Dr. M. B. Swami	Mahatma Basweshwar Mahavidyalaya, Latur	9970943502/8 149902737	mswamiiict@gmail.com
19	Dr. J. H. Deshmukh	Mahatma Basweshwar Mahavidyalaya, Latur	9657032538	jitendra_deshmukh@rediffmail.com
20	Dr. D. G. Palke	R. S. Mahavidyalaya, Latur	9890499290	
21	Dr. K. J. Momin	R. S. Mahavidyalaya, Latur		
22	Dr. G. G. Mandawad	M. U. Mahavdiyalaya, Udgir	9049197873	
23	Dr. D. N. Muley	Shivaji Mahavidyalaya, Udgir	9421851364/ 9404574273	dnmule_1971@rediffmail.com
24	Mr. V. I. Pawar	Shri Hawagiswami College, Udgir	9403212243	Vipawar22@gmail.com
25	Dr. A. G. Jadhav	Mahatma Gandhi Mahavidyalaya, Ahemadpur	9422472995/7 588425785	aanil_kumar2006@rediffmail.com
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27	Mr. B. D. Kokane	Shri Kumarswami Mahavidyalaya, AUSA	9850075223/7 385673766	
28	Mr. G. R. Nagargoje	Shivaji Mahavidyalaya, Renapur	9404550900	ganeshnagargije111@gmail.com
29	Mr. B. N. Chate	Sanjivani Mahavidyalaya, Chapoli	9970604169	bhalchandrachate321@gmail.com
30	Mr. A. S. Bondge	Shivneri Mahavidyalaya, Shiruranantpal	9423577771	abhaybondge@gmail.com
31	Dr. Y. S. Mane	Shivneri Mahavidyalaya, Shiruranantpal	8600714119	
32	Mr. B. S. Wadje	Sambhajirao Kendre Mahavidyalaya, Jalkot	8308297182	
33	Mr. P. V. Bachatte	Sambhajirao Kendre Mahavidyalaya, Jalkot	9923140688	
34	Dr. V. S. More	Kai. Rasikabai College, Devni	7350060162	vajaymore@gmail.com



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Subject: Chemistry

Paper Title: Laboratory Course

Paper No.: All papers

District-Parbhani

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
1	Dr. W. N. Jadhav	D. S. M. College, Parbhani	9421390631	dr_wnj@yahoo.com
2	Dr. B. C. Khade	D.S.M. College, Parbhani	9423443275	bckhade@yahoo.com
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4	Dr. S. B. Tathe	D.S.M. College, Parbhani	9226245792	
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7	Dr. S. B. Ade	Shri Shivaji College, Parbhani	9890081354	
8	Dr. N. V. Shitole	Shri Shivaji College, Parbhani	9420530672	
9	Mr. G. B. Gundewad	Shri Shivaji College, Parbhani	9420017689	
10	Shri B. B. Musle	S.G.B. Mahavidyalaya, Purna(Jn.)	8793557071/ 8806430079	balasahebmsle@gmail.com
11	Dr. Sunil Ballal	Sharda College, Parbhani	9960368589	
12	Mr. V. S. Sonnekar	Sant Tukaram College, Parbhani	9881525577	
13	Mr. C. V. Magar	Sant Tukaram College, Parbhani	9403219319/ 9403219221	cvmagar@gmail.com
14	Mr. K. R. Borude	K. K. M. College, Manwat	8275271007	kailashborude2009@gmail.com
15	Dr. S. B. Zangade	Madhavarao Patil Mahavidyalaya, Palam	9822939699/ 7770072385	drsbz@rediffmail.com
16	Mr. A. D. Arsule	Madhavarao Patil Mahavidyalaya, Palam	7507042070	atmaram0007@gmail.com
17	Mr. S. M. Devraje	Late Ramesh Warpudkar, College, Sonpeth	9970843929	sndpdvry@rediffmail.com sndpdvry@gmail.com



SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED
FACULTY OF SCIENCE
LIST OF EXAMINERS FOR PRACTICAL EXAMINATION SUMMER - 2016

B.Sc. FY/SY/TY (CHEMISTRY)

Class: FY/SY/TY

Paper Title: Laboratory Course

Subject: Chemistry

Paper No.: All papers

District-Parbhani

Sr. No.	Name of Examiner	Name of College	Mobile Number	E-mail address
18	Mr. S. V. Gaikwad	B. Raghunath College Parbhani	9850474520	
19	Dr. Arshiya Parveen	B. Raghunath College Parbhani	8888098264	arshiachemistry@yahoo.co.in
20	Shri P. R. Pande	Nutan Mahavidyalaya, Selu	9422648682	pandepr8@gmail.com
21	Dr. J. S. Pulle	S.G.B. Mahavidyalaya, Purna	9421987801/ 9405772761	drjspulle@yahoo.com
22	Dr. D. P. Kotwal	D.S.M. College, Jintur	9421387487	kotwaldp29@rediffmail.com
23	Dr. K. G. Huge	K. K. M. College, Manwat	8380975705/ 9423324486	kghuge@gmail.com
24	Mr. R. P. Giram	Shri Sant Janabai College, Gangakhed	9421462247	
25	Dr. S. D. Dhage	Shri Sant Janabai College, Gangakhed	9404864600	sddhage@rediffmail.com
26	Dr. B. R. Patil	Sharda College, Parbhani	9420886200	drbrp912@rediffmail.com
27	Dr. S. S. Chandole	S.G.B. Mahavidyalaya, Purna	9423136807/ 9689010099	schandole@rediffmail.com
28	Dr. V. D. Ragole	Late Ramesh Warpuddkar, College, Sonpeth	9960692867	vikasragole@gmail.com
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30	Dr. Kalme S. U.	Shri Sant Janabai College, Gangakhed	9767098950	

Pannel for Practical Examination of UG In the Subject GEOLOGY (Summer 2016)

- 1) Dr.R.B. Muley DSM College, Parbhani.
- 2) Dr. Sk. Md. Babar DSM College, Parbhani.
- 3) Dr. P.R.Wesanekar Science College, Nanded
- 4) Dr. R.A.Pathani Science College, nanded.
- 5) Dr. Sahu S. Toshniwal College, Shengao, Hingoli.

**Swami Ramanand Teerth Marathwada University,
Nanded**

**List of Examiners B.Sc. I, II & III year Practical Examination Summer-2016
(MATHEMATICS)**

Nanded District

	Name	Address	Mobile No.
1)	Dr.Jogdand S.M.	S.S.G.M.M,Loha	8600321001
2)	Dr.Zampalwad S.S.	Gramin Mahavidyalaya ,Vasant Nagar, Mukhed.	9421871639
3)	Dr. Borkar V.C.	Yeshwant College, Nanded	9421769217
4)	Dr. Pande N.A.	Yeshwant College, Nanded	9421450120
5)	Dr. Bondar K.L.	Science College, Nanded	9422174675
6)	Dr. Palimkar D.S.	Vasantrao Naik Mahavidyalaya, Nanded	9420415728
7)	Prof. Metkar R.G.	Indira Gandhi Mahavidyalaya, Cidco, Nanded	9822312176
8)	Prof. Doibale S.S.	S.A.B.S. Mahavidyalaya, Mukhed	9422874806
9)	Prof. Kalyankar S.B.	S.A.B.S. Mahavidyalaya, Mukhed	9423440848
10)	Dr. Shinde P.R.	Gramin Mahavidyalaya ,Vasant Nagar, Mukhed.	9423440471
11)	Prof. Patil G.K.	Arts, Commerce, Science College, Shankarnagar	7350311515
12)	Prof. Thosare A.S.	Dhunda Maharaj College, Degloor	9423437737
13)	Prof. Kondekar S.N.	Degloor College, Degloor	8149976406, 8275939751
14)	Dr. Kakde R.V.	S.G.M.M., Loha	8975195999
15)	Prof. Gache K.B.	L.B.S.College, Dharmabad	9421756993
16)	Prof. Ingole U.G.	B.P.College, Kinwat	9421763427
17)	Dr. Lamb G.B.	B.P.College, Kinwat	9423627154
18)	Prof. Shinde S.P.	V.N.M., Nanded	8857918327
19)	Prof. Borgaonkar V.D.	Science College, Nanded	9850451038

20)	Prof. Muneshwar R.A.	Science College, Nanded	9028351018
21)	Prof. Kulkarni P.R.	Science College, Nanded	9422968960
22)	Prof. Sutkar P.S.	Science College, Nanded	9423767970
23)	Prof. Dr. Gaikwad K.R.	Science College, Nanded	7798221003
24)	Dr. Salunke J.N.	School of mathematical sciences,S.R.T.M.U.Nanded	9420389908
25)	Dr.Pawar D.D.	School of mathematical sciences,S.R.T.M.U.Nanded	9423124662
26)	Dr. Ready Surendra	School of mathematical sciences,S.R.T.M.U.Nanded	9096077789
27)	Prof.Darkunde N.S.	School of mathematical sciences,S.R.T.M.U.Nanded	9273500312
28)	Dr.Rupali Jain	School of mathematical sciences,S.R.T.M.U.Nanded	9028060727
29)	Prof Pande Amitkumar	Sharadchandra College,Naigaon	9011407270
30)	Dr.Chavan Satish B.	Digambarrao Bindu College, Bhokar	9923913292
31)			

Swami Ramanand Teerth Marathwada University, Nanded

**List of Examiners B.Sc. I, II & III year Practical Examination Summer-2016
(MATHEMATICS)**

Hingoli District

Sr. No	Name	Address	Mobile No.
1)	Dr.Ingle R.N.	B.S.College, Basmatnagar Chairman, B.O.S.In Mathematics.	7798164932, 9421457797
2)	Prof. Undegaonkar H.K.	B.S.College, Basmatnagar	9822546874
3)	Dr. Kadam A.D.	Adarsh College, Hingoli	9421458806
4)	Prof. Hatkar S.P.	Adarsh College, Hingoli	9403061949
5)	Prof. Gade S.R.	N.W. College, Ak.Balapur	7387337267
6)			

Swami Ramanand Teerth Marathwada University, Nanded

List of Examiners B.Sc. I, II & III year Practical Examination Summer-2016
(MATHEMATICS)

Parbhani District

Sr. No	Name	Address	Mobile No.
1)	Dr. Dolhare U.P.	D.S.M. College, Jintur	9421382493
2)	Dr. Chopde P.U.	D.S.M. College, Jintur	9423201805
3)	Prof. Jadhav A.B.	D.S.M. College, Parbhani	9421391108
4)	Prof. Kalyan V.B.	D.S.M. College, Parbhani	9423760411
5)	Prof. Nakade S.V.	Sharda College, Parbhani	9823130397
6)	Prof. Popde S.M.	S.T. College, Parbhani	9822772673
7)	Prof. Bidarkar S.N.	Shivaji College, Parbhani	9423705059
8)	Prof. Bele C.D.	Shivaji College, Parbhani	9028957312
9)	Prof.Mrs.Kausadikar A.S	S.G.B.S. Mahavidyalaya, Purna	9423738755
10)	Prof. Latpate V.V.	Sant Janabai College, Gangakhed	9850101935
11)	Prof. Patare V.B	. Nutan College, Selu	9850101935
12)	Prof. Bagul	K.K.M.College,Manwat	9764420916
13)	Prof Girase P.B.	K.K.M.College,Manwat	9923871189
14)	Dr.Jadhav Namdev S	Madhavrao Patil College ,Palam	9922924605
15)			

Swami Ramanand Teerth Marathwada University, Nanded

List of Examiners B.Sc. I, II & III year Practical Examination Summer-2016

(MATHEMATICS)

Latur District

Sr. No	Name	Address	Mobile No.
1)	Dr. Mrs.Hungund N.S.	Havgiswami College, Udgir	9405739944
2)	Dr. Krande B.D.	Udaygiri Mahavidyalaya, Udgir	9822718059
3)	Prof. Jagtap S.V.	Shivaji College, Udgir	8484891614, 9421378755
4)	Dr. Badgire S.V.	Azad College, Ausa	9423736824
5)	Prof. Hasbe V.S.	Kumarswami Mahavidyalaya, Ausa	9764438112
6)	Dr. Gosavi M.R.	M.M., Nilanga	9822995168
7)	Prof. Solanke V.T.	M.M., Nilanga	9975472561
8)	Prof. Wavare M.H.	R.S. College, Latur	9890620620
9)	Prof. Pimple N.S.	R.S. College, Latur	9922717106
10)	Prof. Handibag S.S.	M.B. College, Latur	9011491162
11)	Prof. Gaikwad V.D.	Dayanand Science College, Latur	9403540797

12)	Dr. Bellale S.S.	Dayanand Science College, Latur	9850195038
13)	Principal Chate D.N.	Sanjivani College, Chapoli,	9423854916
14)	Mrs. Biradar	Havgiswami College, Udgir	9766269062
15)	Dr.Mane	Sanjivani College, Chapoli	9960180421
16)	Prof.Kore S.U.	Smbhajirao Kendre College, Jalkot	7776927110

Dr. Ingle R.N.
Chairman,
B.O.S. in Mathematics

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED.

FACULTY OF SCIENCE

RECOMMENDATION OF 32(5) (A) COMMITTEE FOR EXAMINATION

WINTER 2016 / SUMMER 2017

SUBJECT: Dairy science THEORY/PRACTICAL PAGE NO.: 1 ✓
 CLASS : B.Sc. FY, SY, TY
 PAPER TITLE : FY-V, SY VIII, XI, TY - XVI, XVII (Practical Papers)

NO. OF EXAMINERS REQUIRED: _____ NO. OF MODERATORS REQUIRED: _____

MATERIALS ALLOWED FOR EXAMINATIONS : _____ CALCULATOR Y/N

GRAPH PAPER Y/N LOG BOOK Y/N CATALOGUE Y/N DRAWING SHEET Y/N

SR. NO.	NAME OF THE TEACHER	COLLEGE ADDRESS	PHONE/FAX/ MOBILE NUMBER	TYPE OF APPOINTMENT CHAIRMAN/PAPERSETTER EXAMINER/MODERATOR.
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01.	<u>Dr. K.G. Dande</u>	<u>Mahatma Basवेश्वर Mahanidyalya, Latur (MBCL)</u>	<u>9890216549</u>	<u>Practical Examiner</u>
02.	<u>Dr. A.M. Patil</u>	<u>Shivaji Mahanidyalya Udgin (SMU)</u>	<u>942374934</u>	<u>- 11 -</u>
03.	<u>Dr. S.A. Kulkarni</u>	<u>Adarsh college Hingoli (A.H)</u>	<u>9850689380</u>	<u>- 11 -</u>
04.	<u>Dr. A.S. Hembade</u>	<u>Yeshwant Mahanidyalya Nanded (YMN)</u>	<u>9403809455</u>	<u>- 11 -</u>
05.	<u>Dr. S.N. Landge</u>	<u>Maharashtra Udgin Mahanidyalya Udgin (MUMU)</u>	<u>9873761838</u>	<u>- 11 -</u>
06.	<u>Dr. P.T. Gangasagar</u>	<u>Adarsh college, Hingoli (A.H)</u>	<u>9822575427</u>	<u>- 11 -</u>
07.	<u>Mr. R.S. Sonwane</u>	<u>Yeshwant Mahanidyalya Nanded (YMN)</u>	<u>8888592958</u>	<u>- 11 -</u>
08.	<u>Mr. R.B. Yedatkar</u>	<u>Shivaji Mahanidyalya Udgin (SMU)</u>	<u>9422120646</u>	<u>- 11 -</u>

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MEMBER

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page 2

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED.

FACULTY OF SCIENCE

RECOMMENDATION OF 32(5) (A) COMMITTEE FOR EXAMINATION

WINTER 2016 / SUMMER 2017

SUBJECT: Dairy science THEORY/PRACTICAL PAGE NO.: 2
CLASS : B.Sc. FY (P.V), B.Sc. SY. (P.VI, VII), B.Sc. TY. (P.VI, VII)
PAPER TITLE : Practical Paper.

NO. OF EXAMINERS REQUIRED: _____ NO. OF MODERATORS REQUIRED: _____

MATERIALS ALLOWED FOR EXAMINATIONS : _____ CALCULATOR Y/N

GRAPH PAPER Y/N LOG BOOK Y/N CATALOGUE Y/N DRAWING SHEET Y/N

SR. NO. NAME OF THE TEACHER COLLEGE ADDRESS PHONE/FAX/MOBILE NUMBER TYPE OF APPOINTMENT CHAIRMAN/PAPERSETTER EXAMINER/MODERATOR.

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03.	Dr. Sanjeevani Wadikar	Sharadchandra College, Naigaon Dist Latur	9422638437	- // -
04.				
05.				
06.				
07.				
08.				

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SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED.

FACULTY OF SCIENCE

RECOMMENDATION OF 32(5) (A) COMMITTEE FOR EXAMINATION

WINTER 2016 / SUMMER 2017

SUBJECT: Dairy Science THEORY/PRACTICAL PAGE NO.: _____

CLASS : B.Sc. Fy, Sy & T.Y. Practical Papers

PAPER TITLE : P-V, P-III, P-XVI, XVII (All Practical Papers)

NO. OF EXAMINERS REQUIRED: _____ NO. OF MODERATORS REQUIRED: _____

MATERIALS ALLOWED FOR EXAMINATIONS : _____ CALCULATOR Y/N

GRAPH PAPER Y/N LOG BOOK Y/N CATALOGUE Y/N DRAWING SHEET Y/N

SR. NO. NAME OF THE TEACHER COLLEGE ADDRESS PHONE/FAX/ MOBILE NUMBER TYPE OF APPOINTMENT CHAIRMAN/PAPERSETTER EXAMINER/MODERATOR.

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02. Mr Santosh Dabkekar sambhaji Kendra - / -
Mahavidyalaya,
Jalkot.

03. _____

04. _____

05. _____

06. _____

07. _____

08. _____

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MEMBER

Swami Ramanand Teerth Marathwada University, Nanded.

Practical Examination

B.Sc. Second Year

Paper No.-X

Subject- Physics

Max. Marks-50

X-1) Determine the moment of inertia of a fly wheel.

- Measure the diameter of the axle of fly wheel using vernier caliper hence determine radius (r) of the axle.
- Wind (n_1) number of turns with a thread on the axle. Attach mass M to the other end of the thread and measure the height h from ground to mass.
- Count the numbers of revolution (n_2) after the detachment of the mass from axle till the wheel comes to rest and note it.
- Take at least five readings by changing mass and Calculate M.I. of fly wheel using formula.

$$I = \frac{m}{n_1 + n_2} \left[\frac{ghr^2}{8\pi^2 n_2} - n_2 r^2 \right]$$

X-2) Determine acceleration due to gravity (g) by using Kater's pendulum.

- Find the time periods about knife edges K_1 & K_2 and make them nearly equal first for 20 oscillations then for 50 oscillations and finally for 100 oscillations. Now call these time periods as T_1 & T_2 .
- Measure the distance between center of gravity and knife edges (l_1 and l_2).
- Calculate g using Bessel's formula.

$$g = \frac{8\pi^2}{\frac{T_1^2 + T_2^2}{l_1 + l_2} + \frac{T_1^2 - T_2^2}{l_1 - l_2}}$$

X-3) Determine Young's modulus Y of material of a given bar by oscillation method.

- Clamp the bar and vibrate the projected length (L) of bar attaching mass (M) to it.
- Measure the time period (T) for mass (M).
- Take at least six readings for different mass.
- Plot the graph between M & T^2 and find the value of $33m/140$ from the graph.
- Calculate the slope and determine Y by using formula.

$$Y = \frac{16\pi^2 L^3}{bd^3 T^2} \left(M + \frac{33}{140} m \right)$$

Where, b is breadth of the bar and d is depth of the bar.

V-4) To determine the modulus of Rigidity of the given material by using Torsional Pendulum

- Measure the mass of the disc (M).
- Find out radius (R) of the disc and radius (r) of the given wire.
- Determine the modulus of rigidity by using following formula.

$$\eta = \frac{4\pi MR^2 \ell}{T^2 r^4}$$

Where, T- time period for torsional oscillation

X-5) Determine Young's modulus (Y) and Modulus of rigidity (η) of material of given wire by Searle's method.

- Measure mass (m), breadth (b), and length (l) of the given bar.
- Measure radius (r) of the given wire and arrange the apparatus so as to determine (Y).
- Find the period of oscillation (T_1) by three trials.
- Determine (Y) by using formula.

$$Y = \frac{8\pi dL}{r^4 T_1^2} \quad \text{Where, } I = \frac{bd^3}{12}$$

- Arrange the apparatus so as to determine η .
- Find period of oscillation (T_2) by three trials.
- Determine (η) by using formula.

$$\eta = \frac{8\pi dL}{r^4 T_2^2} \quad \text{Where, } I = \frac{bd^3}{12}$$

X-6) Determine the coefficient of viscosity of given liquid by Searle's viscometer.

- Measure the radius (a) of solid cylinder and that of hollow cylinder as (b).
- Immerse the solid cylinder at a length (l) and measure the time (t) of solid cylinder inside liquid.
- Repeat the procedure for four different lengths of solid cylinder inside liquid.
- Plot a graph between l and t and Calculate η by using formula.

$$\eta = \left(\frac{9d(b^2 - a^2)}{8\pi^2 a^2 b^2} \right) \frac{mt}{l + k}$$

X-7) Determine surface tension of a given liquid by Ferguson's method.

- Make the necessary arrangements to carry out the experiment.
- Measure height difference h in monometer liquid when the liquid column in the capillary is flat at the end.
- Measure radius (r) of the capillary tube.
- Calculate surface tension using formula.

$$T = \frac{rh \rho g}{2}$$

Where, ρ is density of experimental liquid.

X-8) To determine the frequency of an A.C. supply using Sonometer.

- Measure the diameter (D) of the wire and Calculate mass per cm. of the wire (m)

$$m = \pi \left(\frac{D}{2} \right)^2 \rho$$

Where ρ is the density of the material of the wire = 8.5 gm/cc.

- Determination of frequency of an A.C. supply by Sonometer using following formula.

$$n = \frac{1}{2l} \sqrt{\frac{T}{m}}$$

Where, m = Mass per unit length of sonometer wire

T = Tension = mg

l = Length of the wire vibrate in a single loop

X-9) Determine refractive index of prism by i-d curve using spectrometer.

- Adjust the spectrometer for parallel light by Schuster's method.
- Measure the angle of deviation for five different angle of incidences (i).
- Plot i-d curve and determine angle of minimum deviation (δ_m) from graph.
- Calculate refractive index of prism by using formula.

$$\mu = \frac{\sin \left(\frac{A + \delta_m}{2} \right)}{\sin \frac{A}{2}}$$

Given – Angle of prism $A = 60^\circ$.

X-10) Determine the wavelength (λ) of sodium light by using Newton's ring.

- Obtain clearly Newton's rings with given apparatus.
- Measure diameter of six bright/dark rings.
- Calculate λ using formula.

$$\lambda = \frac{D_m^2 - D_n^2}{4R(m - n)}$$

Given – radius of curvature of Plano convex lens = R = ----- cm.

X-11) Determine wavelength λ by diffraction grating by normal incidence method.

- Set the spectrometer by Schuster's method.
- Set grating for normal incidence and obtain the angle of diffraction (θ) for I and II order of the spectrum.
- Calculate (λ) using formula.

$$\lambda = \frac{(a + b)\sin \theta}{n}$$

Where, (a+b) is grating element and n is order of spectrum.

X-12) Determine wavelength (λ) of source of a light by biprism.

- Obtain sharp, well defined interference fringes using given apparatus.
- Measure fringe with X_1 & X_2 for two different distances D_1 & D_2 .
- Measure d_1 & d_2 using suitable convex lens.
- Calculate λ using formula.

$$\lambda = \frac{X_2 - X_1}{D_2 - D_1} \sqrt{d_1 \cdot d_2}$$

X-13) To determine the wavelength (λ) of source of a light by using Lloyd's mirror.

- Obtain sharp, well defined interference fringes using given Lloyd's mirror apparatus.
- Adjust the eyepiece stand at sufficiently large distance (D) from the slit stand such that the fringes are sharp, bright and broad and measure the fringe width (β).
- Find the distance between the magnified (d_1) and the distance between diminished (d_2) images of the coherent sources.
- Calculate λ using formula

$$\lambda = \frac{\beta \sqrt{d_1 d_2}}{D}$$

Where, D- distance between the slit and micrometer eye-piece.

X-14) To determine resolving power of telescope.

- Measure the distance between two successive wires (d) using traveling microscope.
- Note down distance (D) between wire gauge and telescope.
- Measure slit width (a).
- Calculate resolving power by formula.

$$R.P. = \frac{d}{D}$$

And verify your result by the relation.

$$R.P. = \frac{1.22\lambda}{a}$$

Given - $\lambda = \text{-----} \text{A}^\circ$

X-15) Determine resolving power of a grating.

- Adjust the spectrometer for parallel light by Schuster's method.
- Set grating for normal incidence.
- Measure the angle of diffraction (θ) for two close spectral lines for Ist or IInd order.
- Calculate resolving power of grating using formula.

$$R.P. = \frac{a \tan \theta}{\lambda}$$

Where, a is critical width for a given order.

Given - $\lambda = \text{-----} \text{A}^\circ$

X-16) To determine the coefficient of thermal conductivity of material of a rod by Searle's apparatus

- Measure the length of rod between two thermometers (l) and radius of the rod (r).
- Place the one end of rod in steam bath and other in water bath.
- Circulate steam around the one end of rod and measure the steady temperature (θ_1 & θ_2).
- Measure the initial and final temperature (θ_3 & θ_4) of the water.
- Find the thermal conductivity of material of a rod by using

$$K = \frac{m(\theta_4 - \theta_3)l}{\pi r^2 (\theta_2 - \theta_1)t}$$

Where, m - mass of water flowing out in t sec.

X-17) Determine specific rotation of sugar solution by polarimeter.

- a) Measure length (l) of polarimeter tube.
- b) Prepare the sugar solutions of different concentrations (c).
- c) Fill the tube with solution of known concentration.
- d) Rotate the analyzer till the field of view is completely and uniformly bright. Note this reading θ . Use different solutions and find angles of them.
- e) Calculate specific rotation (S) using formula.

$$S = \frac{10.\theta}{lC}$$

X-18) Determination of wavelength (λ) of laser source using diffraction grating.

- a) Draw the ray diagram for the diffraction of laser beam from the diffraction grating.
- b) Make the experimental arrangement for diffraction grating and laser to obtain the I and II order of diffraction spot.
- c) Make the necessary observations to verify the law of diffraction.
- d) Find the wavelength (λ) using formula

$$\lambda = \frac{d \sin \theta}{n}$$

Where, n – No. of order of the diffraction spot.

Swami Ramanand Teerth Marathwada University, Nanded.

Practical Examination

B.Sc. Second Year

Paper No.-XI

Subject- Physics

Max. Marks-50

XI-1) Measure the low resistance by potentiometer.

- Draw the circuit diagram and show it to the examiner.
- Connect the circuit and get it checked by the examiner.
- Find the balancing length (l_1) for known and (l_2) for unknown resistances
- Take at least five readings (p).
- Calculate unknown resistance and specific resistance (s) by using formula.

$$P = Q \frac{l_1}{l_2} \Omega \quad \text{and} \quad S = \frac{P\pi r^2}{l}$$

XI-2) Compare the capacities of condensers by De Sauty's method.

- Draw circuit diagram and show it to the examiner.
- Make the connection and get checked by the examiner.
- Choose resistance $R_2 = \text{-----}$ constant.
- Choose R_1 and note the deflection θ .
- Take at least six readings and plot the graph between R_1 and θ and find resistance R_1 for zero deflection.
- Compare the capacities by using formula.

$$\frac{C_1}{C_2} = \frac{R_2}{R_1}$$

X-3) Measurement of maximum velocity of photo electron by photo cell.

- Draw circuit diagram and show it to the examiner.
- Make the connection and get checked by the examiner.
- Throw a light on photocell through a filter and vary the potential (v) of photocell and record the deflections (θ).
- Plot the graph between V and θ and find the stopping potential (Vs) from the graph.
- Calculate maximum velocity of ejected electron by using formula.

$$V_{\max} = \sqrt{\frac{2eVs}{m}}$$

Given: electron charge $e = 1.6 \times 10^{-19} \text{C}$

XI-4) Determine h/e by a photocell.

- Draw circuit diagram and show it to the examiner.
- Make the connection and get checked by the examiner.
- Throw a light on photocell through a filter λ_1 and vary the potential (v) and note the corresponding deflection (θ).
- Repeat the same procedure with another filter of wavelength λ_2 and plot the graph between v and θ . Find stopping potential V_{S1} and V_{S2} for wavelengths λ_1 and λ_2 .
- Calculate h/e by formula

$$\frac{h}{e} = \frac{(V_{S1} - V_{S2})}{300.c \left(\frac{1}{\lambda_1} - \frac{1}{\lambda_2} \right)} \quad \text{Where, c is velocity of light}$$

X-5) Study the solar cell characteristics.

- Draw circuit diagram and show it to the examiner.
 - Make the connection and get checked by the examiner.
 - Vary the load R and note the solar cell current I and voltage V.
 - Plot the V-I characteristics and find V_{OC} and I_{SC} from graph.
 - Determine efficiency (ϵ) and fill factor (ff) of the solar cell.
-

X-6) Study the characteristics of LED and LDR.

- Draw circuit diagram of characteristics of LED and LDR.
 - Make the connection and get checked by the examiner.
 - Take necessary reading to plot LDR and LED.
 - Plot the characteristics of LED and LDR.
-

X-7) Study the characteristics of photodiode.

- Draw circuit diagram of characteristics of photodiode.
 - Make the connection and get checked by the examiner.
 - Take necessary reading to plot photodiode.
 - Plot the characteristics of photodiode.
-

X-8) Study the CB transistor characteristics.

- Draw circuit diagram, Make connection and get them checked by the examiner.
- Keep V_{CB} constant. Vary V_{EB} and note I_E . Repeat the same steps for two other values of V_{CB} .
- Keep I_E constant. Vary V_{CB} and note I_C . repeat same steps for two other values of I_E .
- Plot input and output characteristics. Find current gain α .

X-9) Study the CE transistor characteristics.

- a) Draw circuit diagram, Make connection and get them checked by the examiner.
 - b) For input characteristics, keep V_{CE} and note I_E . Repeat the same procedure for two different values of V_{CE} . Plot the graph between V_{BE} & I_B .
 - c) For output characteristics, keep I_B constant vary V_{CE} and note I_C . Take two another values of I_B and repeat the same steps.
 - d) Plot the graph between V_{CE} and I_C . Find the current gain β .
-

X-10) To study the characteristics of photo transistor

- a) Draw and connect circuit diagram for to study the input characteristics of photo transistor.
 - b) Plot the graph between V_{ce} vs I_L , for intensity constant.
 - c) Plot the graph between I_c vs Intensity, for V_{ce} constant.
-

X-11) Power supply using π filter (Full wave rectifier).

- a) Draw circuit diagram of π filter for full wave rectifier.
 - b) Make the connection and get checked by the examiner.
 - c) To study the Line regulation and Load regulation.
-

X-12) Transistorized regulated power supply using zener diode.

- a) Draw circuit diagram for the Transistorized regulated power supply using zener diode.
 - b) Make the connection and get checked by the examiner.
 - c) To study the Line regulation and Load regulation.
 - d) Draw the necessary graphs.
-

X-13) Load regulation using bridge rectifier.

- a) Draw circuit diagram of bridge rectifier.
 - b) Make the connection and get checked by the examiner.
 - c) Study the load regulation.
-

X-14) Study of transistorized CE Amplifier

- a) Draw circuit diagram of transistorized CE-amplifier.
- b) Make the connection and get checked by the examiner.
- c) Study the frequency response.
- d) Calculate gain & 3db band width.

X-15) Op-Amp to study as an adder.

- a) Draw circuit diagram of Op-Amp as an adder.
 - b) Make the connection and get checked by the examiner.
 - c) Study its operation.
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X-16) Op-Amp to study as subtractor.

- a) Draw circuit diagram of Op-Amp as subtractor.
 - b) Make the connection and get checked by the examiner.
 - c) Study its operation.
-

X-17) Op-Amp to study as an integrator.

- a) Draw circuit diagram of Op-Amp as an integrator.
 - b) Make the connection and get checked by the examiner.
 - c) Study its operation.
-

X-18) Hartley Oscillator.

- a) Draw a circuit diagram of Transistorized Hartley Oscillator.
 - b) Build the circuit and get checked by the examiner.
 - c) Display the wave form on CRO.
 - d) Measure the frequency and amplitude of waveform.
-

X-19) Phase shift Oscillator.

- a) Draw a circuit diagram of of transistorized phase shift oscillator.
- b) Build the circuit and get checked by the examiner.
- c) Display the wave form on C.R.O.
- d) Measure the frequency and amplitude for at least two different R.C. Combinations, Verify the frequencies theoretically.

Swami Ramanand Teerth Marathwada University, Nanded.

Practical Examination

B.Sc. Third Year

Paper No.-XVI

Subject- Physics (Compulsory)

Max. Marks-50

XVI-1) Determine the coefficient of viscosity of a given liquid by oscillating disc method.

- Determine the moment of inertia (I) of the disc.
- Obtain the logarithmic decrement in air (λ) and logarithmic decrement in liquid (λ_0).
- Determine the coefficient of viscosity using the formula.

$$\eta = \frac{16I^2}{\pi\rho T[r^4 + 2r^3d]^2} \left[\left(\frac{\lambda - \lambda_0}{\pi} \right) + \left(\frac{\lambda - \lambda_0}{\pi} \right)^2 \right]^2$$

Where, $I = \frac{Mr^2}{2}$ moment of inertia of the disc and its attachment.

ρ = density of the liquid.

T = time period in air.

M = Mass of disc.

r = radius of the disc.

d = thickness of the disc.

XVI-2) Determination of Rydberg's constant.

- Calibrate spectrometer by using mercury source by plotting wavelength λ against angle of minimum deviation δm .
- With hydrogen tube locate H_α & H_β lines and find there wavelengths from graph. Show the adjustment to the examiner.
- Determine the Rydberg's constant by using formula.

$$\frac{1}{\lambda} = R \left(\frac{1}{n_1^2} - \frac{1}{n_2^2} \right)$$

Where, $n_1 = 2$

$n_2 = 3$ for H_α lines and $n_2 = 4$ for H_β lines

λ = is the corresponding wavelength

R = Rydberg's constant.

XVI-3) To determine the unknown wavelength by using Herman's dispersion formula.

- a) Evaluate the constants λ_0 , C and S_0 of the Herman's dispersion formula.

$$\lambda = \lambda_0 + \frac{C}{S - S_0}$$

Where,

$$\lambda_0 = \lambda_1 - \frac{S_2 - S_3}{K}$$

$$C = \frac{(S_2 - S_3)(S_1 - S_0)}{K}$$

$$S_0 = S_2 + \frac{S_2 - S_3}{K} \cdot \frac{S_1 - S_2}{\lambda_1 - \lambda_2}$$

$$K = \frac{S_1 - S_2}{\lambda_2 - \lambda_1} - \frac{S_1 - S_3}{\lambda_3 - \lambda_1}$$

- b) Using the wavelengths of mercury spectrum $\lambda_1 = \text{-----}\text{\AA}$, $\lambda_2 = \text{-----}\text{\AA}$, $\lambda_3 = \text{-----}\text{\AA}$ for calculation of constants and find the wavelength λ of the spectral line -----.

XVI-4) Determine the temperature flame by the method of reversal of spectral lines using White light.

- a) Show the adjustment to the examiner.
b) Use the relation.

$$t_2 = \frac{1}{\alpha} \left[\frac{Rt_2(1 + \alpha t_1)}{Rt_1} - 1 \right] C$$

Where, Rt_1 is the resistance of the filament at temperature t_1 .
 α is the temperature coefficient of resistance of the filament.

- c) Modify above relation to find temperature of flame.

XVI-5) To determine the Cauchy's constants by using spectrometer.

- a) Adjust spectrometer by Schuster's method by using mercury source.
b) Determine the angle of deviations for at least five different colors & its refractive index.
c) Plot the graph between $\frac{1}{\lambda^2}$ & μ & find the Cauchy's constants from the graph.

$$\mu(\lambda) = A + \frac{B}{\lambda^2}$$

Where A and B are the Cauchy's constants.

XVI-6) To determine the wavelength of source of a light by using diffraction straight edge.

XVI-7) Determine the coefficient of thermal conductivity of the material of a rod by Forbes method.

- Show steady temperature to the examiner.
- Find the rate of cooling at different temperatures.
- Use the relation.

$$K = \frac{\rho s s'}{\left[\left(\frac{d_\theta}{dx} \right)_{x_1} - \left(\frac{d_\theta}{dx} \right)_{x_2} \right]}$$

Where,

s = area under the curve.

s' = the specific heat of the material.

ρ = density of the material.

$$\left(\frac{d_\theta}{dx} \right)_{x_1} = \text{slope at } x_1 \text{ and } \left(\frac{d_\theta}{dx} \right)_{x_2} = \text{slope at } x_2.$$

XVI-8) Find the Plank's constant (h) by using light emitting diode (LED).

- Draw and construct the circuit diagram.
- Find the operating voltage (V) of different colors of LED.
- Find the Plank's constant (h) using relation

$$h = \frac{v\lambda e}{c}$$

Where, λ = Wavelength for different color of LED

e = Charge of electron

C = Velocity of Light

XVI-9) Find the Plank's constant (h) by using solar cell.

- Draw the circuit to determine h by solar cell.
 - Plot the graph between voltage and deflection.
 - Find the value of h.
-

XVI-10) Determine the ratio of e/m by using Thomson method.

- Make the necessary arrangement of the Thomson's Tube.
- Determine the ratio and charge to mass of electron using Thomson's tube by using formula

$$\frac{e}{m} = \frac{\left[\frac{P}{2} + L \right] PVY \times 10^8}{d \left[\frac{1}{2} \ell^2 H' \int \int h(\ell - x) dx \right]} \quad \text{Where } H' = 0.37 \text{ Gauss}$$

- Plot the necessary graph.
-

XVI-11) Determine the resolving power of given prism by using relation.

$$R.P. = \left(\frac{2\beta}{\lambda^3} \right) t$$

Where, λ is the mean wavelength of the nearby the spectral lines.

$$\beta = \frac{(\mu_1 - \mu_2) \lambda_1^2 \lambda_2^2}{\lambda_2^2 - \lambda_1^2}$$

Where, μ_1 & μ_2 are the refractive indices for the wavelength λ_1 & λ_2 of mercury spectrum.

$$t = \frac{2w \sin A / 2}{\cos \frac{A + \delta m}{2}}$$

Where, A = angle of prism (60°).

δm = angle of minimum deviation for the lines.

w = critical width.

XVI-12) To study the absorption spectrum of iodine vapors.

XVI-13) To determine thermal conductivity of rubber tube.

- Immerse 50 cm of rubber tube in water taken in calorimeter.
- Pass steam through the rubber tube for 10 min.
- Note the temperature difference of water before and after passing the steam.
- Calculate coefficient of thermal conductivity by using the given formula.

$$k = \frac{(m + w)(\theta_2 - \theta_1)2.303 \log_{10} \frac{r_2}{r_1}}{2\pi lt \left[\theta_{\text{steam}} - \frac{\theta_1 + \theta_2}{2} \right]}$$

Where,

m = mass of water taken in the calorimeter.

θ_{steam} = temperature of steam.

w = water equivalent of calorimeter and its contents.

θ_1 = initial temperature of water.

θ_2 = final temperature of water.

r_2 = external radius of the tube.

r_1 = internal radius of the tube.

l = length of the tube dipped in the tube.

t = time for which steam is passed in sec.

XVI-14) Determination of wavelength (λ) of laser source using diffraction grating.

- Draw the ray diagram for the diffraction of laser beam from the diffraction grating.
- Make the experimental arrangement for diffraction grating and laser to obtain the I and II order of diffraction spot.
- Make the necessary observations to verify the law of diffraction.
- Find the wavelength (λ) using formula

$$\lambda = \frac{d \sin \theta}{n}$$

Where, n – No. of order of the diffraction spot.

XVI-15) To study the Hysteresis curve of transformer core

XVI-16) Determine the thermal conductivity of a given material using Lee's disc method.

XVI-17) Determine resolving power of a grating.

- a) Adjust the spectrometer for parallel light by Schuster's method.
- b) Set grating for normal incidence.
- c) Measure the angle of diffraction (θ) for two close spectral lines for Ist or IInd order.
- d) Calculate resolving power of grating using formula.

$$R.P. = \frac{a \tan \theta}{\lambda}$$

Where, a = critical width for a given order.

Given - $\lambda = \text{----- } \text{\AA}$

Swami Ramanand Teerth Marathwada University, Nanded.

Practical Examination

B.Sc. Third Year

Paper No.-XVII (A)

Subject- Physics (Elective)

Max. Marks-50

XVII-1) To calibrate bridge wire using Carrey –Foster’s bridge.

- Draw circuit diagram of Carrey –Foster’s bridge.
 - Make the connection and get checked by the examiner.
 - Calibrate the experimental wire by altering the resistance.
-

XVII-2) To determine the efficiency of transformer.

- Draw circuit diagram of efficiency of transformer.
 - Make the connection and get checked by the examiner.
 - Determine input and output power.
 - Calculate efficiency of transformer.
-

XVII-3) Variation of thermo e.m.f. with temperatures.

- Draw the circuit diagram for variation of thermo e.m.f. with temperatures.
- Make connection and get them checked by the examiner.
- Calibrate potentiometer wire so that potential gradient is $10 \mu\text{v}/\text{cm}$.
- Measure thermo e.m.f. at various temperature by keeping one of the junction of thermocouple hot and the other cold and plot a graph between temperature and thermo e.m.f.

Given: i) resistance of potentiometer wire $r = \text{-----}$

ii) e.m.f. of standard cell = ----- .

XVII-4) Study of CRO (Determination of frequency and voltage sensitivity).

- Note the frequency as marked on the dial of the given frequency generator.
- Measure the same frequency using CRO and find the difference between the two values.
- Repeat the same at least for five different frequencies.
- Find the voltage sensitivity (AC and DC) of the given CRO.

XVII-5) To determine the electrical conductivity of graphite rod.

- a) Draw circuit diagram of electrical conductivity of graphite rod.
 - b) Make the connection and get checked by the examiner.
 - c) Take necessary observations
-

XVII-6) Temperature coefficient of a thermister

- a) Draw the circuit diagram to study temperature resistance characteristics of thermister.
 - b) Construct the circuit and take the necessary observations.
 - c) Plot the graph and determine the temperature coefficient of termister.
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XVII-7) Energy band gap of a semiconductor.

- a) Draw the circuit diagram to determine energy band gap of a semiconductor.
 - b) Construct the circuit and take the necessary observations.
 - c) Plot the graph and determine the energy band gap of a semiconductor.
-

XVII-8) Comparison of capacities by method of mixture.

- a) Draw the circuit diagram for Compare the capacities of condensers by method of mixture.
- b) Make the connection and get checked by the examiner.
- c) Keep R_1 =----- constant select R_2 and charge the condenser by throwing DPDT switch and allow to it discharge. Note the deflection θ and Repeat the same procedure for six different values of R_2 .
- d) Plot the graph between R_2 and θ . And find the R_2 for null deflection and Compare capacities by using formula.

$$\frac{C_1}{C_2} = \frac{R_2}{R_1}$$

XVII-9) Verification of basic gates (AND, OR, NOT) using IC's.

- a) Draw the circuit of OR, AND and NOT gate using IC's.
- b) Construct the circuit.
- c) Verify truth table of each gate.

XVII-10) Construction of basic gates (AND, OR, NOT) using NAND gate.

- a) Draw the circuit of OR, AND and NOT gate using NAND gate.
 - b) Construct the circuit.
 - c) Verify truth table of each gate.
-

XVII-11) Construction and study of half adder.

- a) Draw the circuit diagrams of half adder using NAND gates.
 - b) Construct the circuit.
 - c) Verify truth table of each gate.
-

XVII-12) Construction and study of full adder.

- a) Draw the circuit diagrams of full adder using NAND gates.
 - b) Construct the circuit.
 - c) Verify truth table of each gate.
-

XVII-13) Implementation of Boolean expression from the given truth table using K- map.

- a) Determine Boolean expression in P-of-S from using K- map for the given truth table.
 - b) Implement it using appropriate gates and verify the truth table.
-

XVII-14) To study the Colpitt's Oscillator.

- a) Draw circuit diagram of efficiency of transformer.
 - b) Make the connection and get checked by the examiner.
 - c) Measure the frequency and amplitude of waveform.
-

XVII-15) Study of low pass and high pass filter using resistance and capacitance.

- a) Draw circuit diagram of low pass and high pass filter.
- b) Make the connection and get checked by the examiner.
- c) Draw the graph for low pass and high pass filter.
- d) Find cut off frequency of low and high pass filter.

XVII-16) To study the Clipper and Clamper circuits

- a) Draw circuit diagram of clippers and clamper.
 - b) Make the connection and get checked by the examiner.
 - c) Take necessary observations
 - d) Sketch input and output waveform.
-