

केल्यानं होत आहे रे । आर्थी केलेची पाहिजे ॥

Bhartiya Shikshan Prasarak Sanstha Amabajogai's

Shri Siddheshwar Mahavidhalaya, Majalgaon



Internal Quality Assurance Cell

Criterion 1 – Curricular Aspects

1.2 Academic Flexibility

1.2.2 Number of Certificate / Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

Academic Year 2018-19

Attendance, Report & Certificates

Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)



Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

List of Certificate Courses

Sr.No.	Name of the Course	No. Of Students Enrolled	Department	Course Co-ordinator
1	Yogasan & Pranayam	42	Sport	Dr.Umesh Sadegaonkar
2	Application of Physics in Medical and Agriculture Field	67	Physics	Dr.S.R.Mitkari
3	Fundamentals of Chemistry & Laboratory	23	Chemistry	Dr.Sanjay Pawar

Qant

**Co-Ordinator
I Q A C**

Shri Siddheshwar Mahavidyalaya
Majgaon Dist. Beed (M.S.)



[Signature]

**Principal
Shri Siddheshwar Mahavidyalaya
Majgaon, Dist. Beed 431 131**



केल्यानें होत आहे रे । आधीं केलेची पाहिजे ।।
Bhartiya Shikshan Prasarak Sanstha, Ambajogai's



Shri Siddheshwar Mahavidyalaya, Majalgaon

Dist. Beed (MS)

(NAAC Reaccredited 'B' Grade with CGPA 2.46)

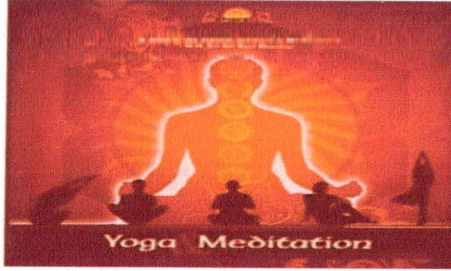
SPORT DEPARTMENT

Organizes

Value Added Course (2018-19)

On

Yogasan & Pranayam



Date of Course: Date :- 21/12/2018 to 30/12/2018
(Duration: 32 Hrs.)

Coordinator

IQAC Coordinator

Principal

(Email:- rushikesh13022003@gmail.com)

Website: www.siddheshwarcollege.com

Contact: 9423108111, 9422231612



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

SPORT DEPARTMENT

To,
The Principal,
Shri Siddheshwar mahavidyalaya, Majalgaon

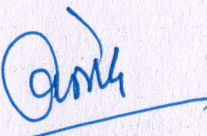
Subject: Permission to start Value Added Certificate Course in Certification
"Yogasan & Pranayam" Course

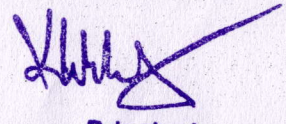
Sir,
With reference to above subject our Physical Education & Sport Department wants
to conduct Value Added Course in "Yogasan & Pranayam" Certification Course
for all students in the academic year 2018-19. Please give permission to conduct
the said course and oblige.

Thanking you.


Director
Dept. of Sport
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed.

Copy to:
1. Co-ordinator IQAC, Shri Siddheshwar mahavidyalaya, Majalgaon


Co-Ordinator
I Q A C
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



कल्याणें होत आहे रे । आधीं केलेची पाहिजे ॥
भारतीय शिक्षण प्रसारक संस्था अंबाजोगाई संचलित
श्री सिद्धेश्वर महाविद्यालय, माजलगाव

ता.माजलगाव जि.बीड ४३१ १३१ (महाराष्ट्र)

(कला, विज्ञान व वाणिज्य)

नॅक मुल्यांकन दर्जा 'बी'

डॉ.भालचंद्र जी.कराड

(एम.कॉम.जी.डी.सी.अॅड ए.एम.फिल.पीएच.डी)

कार्यालय : (०२४४३) २३५४७५, २३५९०१ फॅक्स : २३५४७५

Website : www.siddheshwarcollege.com

E-mail : siddheshwar.college@gmail.com

To,

H. O. D. of Physical Education & Sport,

Shri Siddheshwar mahavidyalaya, Majalgaon

Subject: Permission to start Value Added Course in "Yogasan & Pranayam"
Certification Course

With reference to above subject and your application regarding to conduct Value Added Certificate Course in for all students in the "Yogasan & Pranayam" academic year 2018-19. You are permitted to conduct the said course.

Copy to:

1. Co-ordinator IQAC, Shri Siddheshwar mahavidyalaya, Majalgaon

Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed
SPORT DEPARTMENT

NOTICE

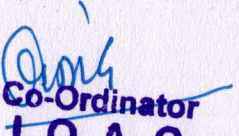
Dt. 10/12/2018

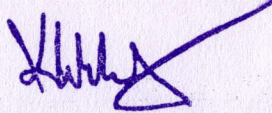
All the students are informed that, Sport Department is conducting Value Added Certificate Course in "Yogasan & Pranayam" for all students in the academic year 2018-19. So, all the students informed to join this course.

For this all the students are informed to contact in the Sport Department and confirm your admission.

H. O. D.,
Sport Dept.


Director
Dept. of Sport
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed.


Co-Ordinator
T Q A C
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

Value Added Course (2018-19)

Certification Course of "Yogasan & Pranayam"

Course Syllabus

32 Hrs

भारतीय शिक्षण प्रसारक संस्था, अंबाजोगई संघटित
श्री: सिद्धेश्वर महाविद्यालय, माजलगाव, जि. बीड

तीस दिवसीय योगासन, ध्यान, प्राणायाम प्रमाणपत्र अभ्यासक्रम



दिनांक/दिन	पाठ्य भाग (विषय)	समय (वेळ)
1 वा दिवस	योग परिचय, योगाची व्याख्या, योगाचे फायदे, योगाचे गहनतादि - प्रार्थना - हम करे राहू --- । ओझ्म - संज्ञाचक्र - सूर्योदय --- । ओझ्म - च्चारण - योगिक विद्या - योगाच्या लक्षणं कटीवर्चालन, रघुचरी डासन, (गुड्डासास) मेराहू केळे जाणारे डासन - डोस - ताडासन वृक्षासन, पादवृक्षासन, अधिचक्रासन, त्रिकोणासन (कृती, लाभ, न हानि) प्राणायाम - प्रकार, पद्धती, लाभ, मार्गदर्शन व अनुक्रम - किलोम - (पद्धती अभ्यास) ध्यान - पद्धती, लाभ, मार्गदर्शन व कृती	15 05 10 15 10 05 60 मि.
2 वा दिवस	पद्य, प्रार्थना, ओझ्म कारोच्चारण - वसून् केळे जाणारे डासन - मद्रासन, अधिउद्गसन शशकासन, वक्रासन (कृती, लाभ, दोषादि मार्गदर्शन) प्राणायाम - कपालभाती, नडिबुद्धी (कृती, लाभ) ध्यान - ध्यान (कृती, गहन, अभ्यास)	10 25 20 05 60 मि.
3 वा दिवस	पद्य, प्रार्थना, ओझ्म कारोच्चारण - पाठवर स्तूपन केळे जाणारे डासन, घ पाठीवर स्तूपन केळे जाणारे डासन - डोस: शुद्धासन, स्वास्त्रासन मकारासन, श्लेष्मसासन, पतंगमुक्तासन, श्वाससन प्राणायाम - श्वासरी, उद्गडासरी (कृती - व हान्यारा) ध्यान - कृती व डासनास	10 30 15 05 60 मि.



दिवादिदिन	पाठ्य भाग (विषय)	अवधि (मिन.)
४ था दिवस	पद्म, प्रार्थना, प्रणवोच्चारण - यौगिक क्रिया उभे रखून केले जाणारे आसन - गुरुआसन, हस्तपादांगु- आसन, जगमगासन, कोणासन (कृती, लाभादि भागदर्शनी) प्राणायाम - स्वीकारा, शीतली (कृती, लाभादि भागदर्शनी) ध्यान - (कृती - पद्धती लाभादि भागदर्शनी)	15 30 10 05 <u>60 मि.</u>
५ वा दिवस	पद्म, प्रार्थना, गायत्रीमन्त्रोच्चारण - यौगिक क्रिया अभ्यास उभे रखून केले जाणारे आसन - आकार धनुरासन, पादांगुणासन शलाकासन, उद्रासन, उत्पटासन प्राणायाम - अनुलोम विलोम, भारिजना (कृती व अभ्यास) ध्यान - (कृती - लाभादि भागदर्शनी)	15 30 10 05 <u>60 मि.</u>
६ वा दिवस	पद्म, प्रार्थना, त्रिवार ओम् उच्चारण - यौगिक क्रिया अभ्यास माठीवर स्तेपून केले जाणारे आसन - उत्तानपादासन, नौकासन पवनमुक्तासन, सेठुबन्धासन, चक्रासन (कृती व अभ्यास) प्राणायाम - कपालभांती, उज्जायी (कृती व अभ्यास) ध्यान - (पद्धती - कृती भागदर्शनी)	15 30 10 05 <u>60 मि.</u>
७ वा दिवस	पद्म, प्रार्थना, ओम्कारोच्चारण - यौगिक क्रिया अभ्यास माठीवर स्तेपून केले जाणारे आसन - मकरासन, धनुरासन शलाकासन, भुजंगासन, मथुरासन (कृती व अभ्यास) प्राणायाम - नाडी शुद्धी, सूर्यभेदी (कृती व अभ्यास) ध्यान - (कृती व लाभादि भागदर्शनी)	15 30 10 05 <u>60 मि.</u>
८ वा दिवस	पद्म, प्रार्थना, ओम्कारोच्चारण - यौगिक क्रिया अभ्यास विश्रामात्मक आसन - शवासन, मकरासन, ध्यानार्त्मात्मक आसन चिच्छासन, पद्मासन, सुखासन (कृती व अभ्यास) प्राणायाम - शमीरी, शीतली (कृती व अभ्यास) ध्यान - (कृती व अभ्यास)	15 30 10 05 <u>60 मि.</u>



दिनांक	पाठ्यक्रम (विषय)	(3)	आवधि (घंटा)
१वा दिवस	पद्य, प्रार्थना, ओङ्कारोच्चारण, धार्मिक क्रियाप्रवास	15	30
	विषयसूची - व पठितरसेखनेकेले जाणारे असून - उत्तानापादासन, पवनमुक्तासन, वीकासन, ज्येष्ठमुक्तासन वक्रासन, सर्वाङ्गसन, प्राणायाम - प्राणमुल्लेखे काय ६ प्राणायामांची तयारी प्राणायामाचे फायदे - लोचो लाश व.समदर्शनी हठान - कृती व लाशादि समदर्शनी.	10	05
			60 मि.
३०वा दिवस	पद्य, प्रार्थना, प्रणवोच्चारण, धार्मिक क्रियाप्रवास.	15	30
	पठितरसेखनेकेले जाणारे असून - मुद्रांगारसन, श्वासासन, धनुर्वासन, शकरासन, मयुरासन, त्रिषस्तिकादि. प्राणायाम - वीतितालो, सन्निधा, कामरो (कृती व लाश) हठान - कृती व लाशादि समदर्शनी.	10	05
			60 मि.

Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



- खालील भाग आवश्यक वाटल्यास आसनाच्या विधानां.

40 - योगी. सिद्धी. धेने.

(1) मुद्रा आणि बंध - महामुद्रा, सिंहमुद्रा, प्रलम्बमुद्रा

अश्विनी मुद्रा - बंध - जालन्धर बंध

उडीयाण बंध, मूलबंध इत्यादि

कृती व मार्गदर्शन.

(2) षट्का - कृद्धिक्रिया - जालनेति, सूत्रनेति

अमाशयशुद्धी - वमनघोषेति, दण्डघोषेति, वस्त्रघोषेति

आतस्थायी शुद्धी - अग्निसार, शोषप्रशालन

इत्यादि कृती व मार्गदर्शन.

(3) योगिकचिकित्सा - संकुलित आहार

नियमोत्तम, मानसिक शांति, मार्गदर्शन.

(4) मानसिक स्वास्थ्य - मनोचे लक्षण, मनोचे विषय

शुद्ध, अशुद्ध, मानोचे विषय, मार्गदर्शन.

मानसिक रोग - वनस्पति, न. भा. य. प्रकार

शांती, मार्गदर्शन, मानसिक रोगाचे लक्षण.

(5) मनोकायिक योग - लोभाव, लोभावाचे कारण

लोभावाचे लक्षण, लोभावाचा शरीर व मनोपर

लोभाव परिणाम, मार्गदर्शन.

(6) प्रत्याहार व धारणा - प्रत्याहार पद्धती

धारणाचे स्वरूप - शीतरोम योग, भट्टचक्र

पञ्चकोष, इत्यादि मार्गदर्शन.

(7) ध्यान व समाधी - ध्यान पद्धती, लोभा

समाधी व ध्यान समाधीत अंग, प्रकार

उद्देश्य, उपायादि मार्गदर्शन.

(8) आसन व व्यायाम - यातील अंतर

व्यायाम - दण्डबद्ध, धौड, अश्विनमस्कार

पी. टी. प्रकार, इत्यादि कृती व मार्गदर्शन.

(9) कुंडो कराटे - पद्धती व कृती, प्रकार

इत्यादि मार्गदर्शन.

(10) विविध शस्त्र प्रशालन - काडी, भाला, चालू

तलवार, इत्यादि शस्त्र प्रशालन - कृती व

मार्गदर्शन.

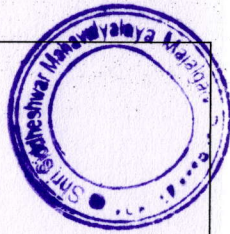
खेळ -

अ. स्वामी देवप्रत सरस्वती.

In-charge

Coordinator

Principal



Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

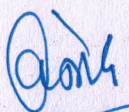
SPORT DEPARTMENT

Time Table - Value Added Certificate Course

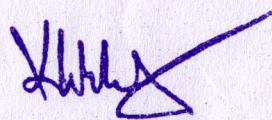
“Yogasan & Pranayam”

Academic Year 2018-19

Sr. No,	Date	Time	Name of Teacher
01	21/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
02	22/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
03	23/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
04	24/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
05	25/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
06	26/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
07	27/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
08	28/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
09	29/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)
10	30/12/2018	05:30 to 07:10 AM 05.30 to 07.10 PM	Swami Devvrathji Sarswati (Delhi)


Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

DEPARTMENT OF SPORT

“Yogasan & Pranayam”

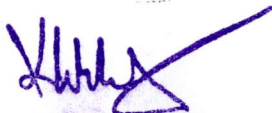
2018-2019

21/12/2018 – 30/12/2018

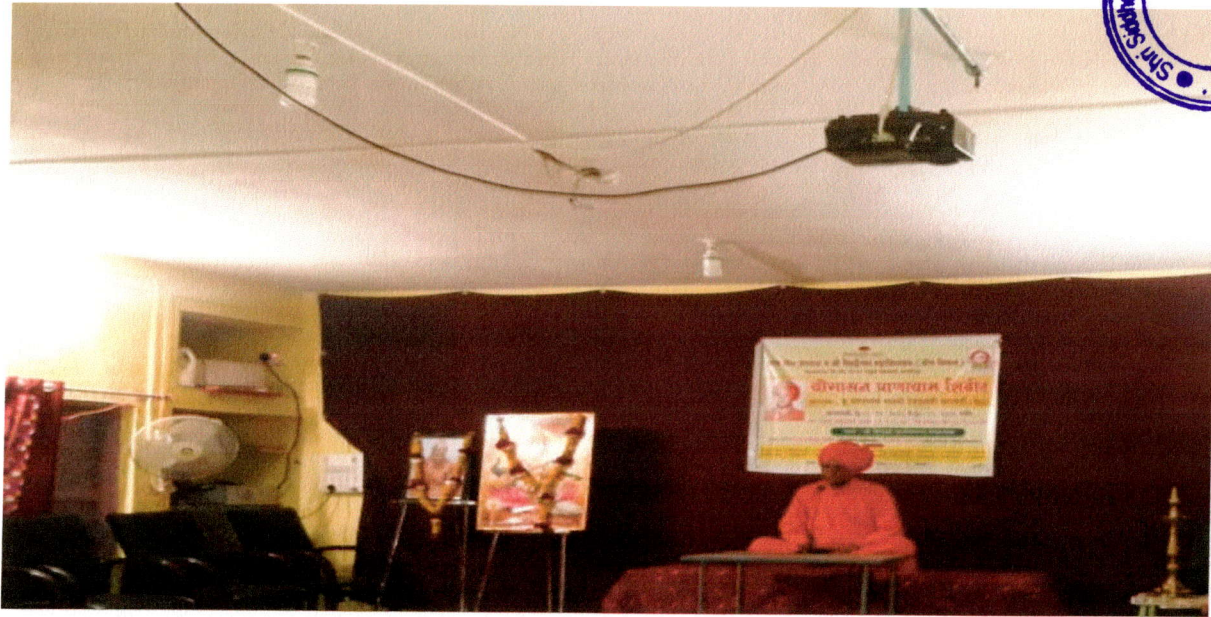



Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



MORNING SESSION AT 5.30 AM.TO 7.10 AM. DAILY


Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

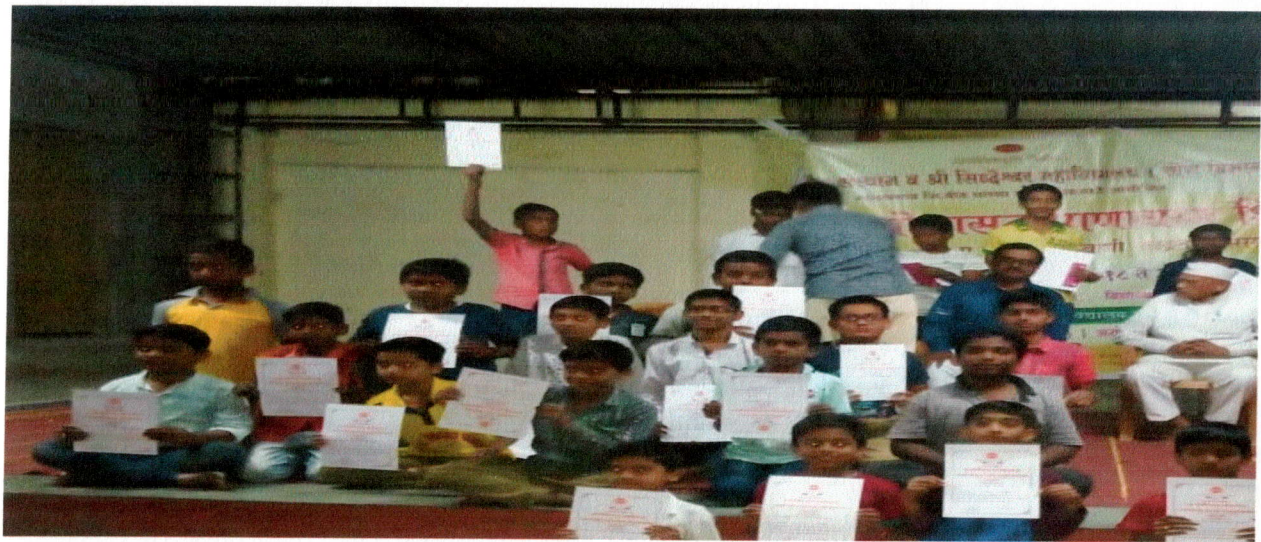


Qum
Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

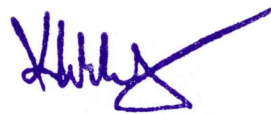
V. K. K.

Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131




Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)



Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



EVENING SESSION AT 5.30 PM.TO 7.10 PM DAILY


Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)



Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

Shri Sidheshwar Mahavidyalaya, Majalgaon Dist. Beed

Department of Sport

Value Added Certificate Course

"Yogasan & Pranayam" Certification Course

Academic Year 2018-19

Date 21/12/2018 to 30/12/2018



Sr. No.	Name of the Student	December 2018									
		21	22	23	24	25	26	27	28	29	30
1	कुप्रेयंका कमलाम् कांबळे	P	P	P	P	P	P	P	P	P	P
2	निशुत पी. एस.	P	A	P	P	P	P	P	P	P	P
3	डॉ. परकाळ को. एस.	P	P	P	P	P	P	P	A	P	P
4	उत्तम ना. बलुरपे	P	P	A	P	P	P	P	P	P	P
5	शशिकिशोर उत्तम गडम	P	P	P	P	P	P	P	P	A	P
6	दत्ता हन. महाजन	P	P	P	P	P	P	P	P	P	P
7	अशोक सुरपलाम काजाज	P	P	P	P	P	P	P	P	P	P
8	अनीस सुधाकर आनंदराव	P	P	P	P	P	P	P	P	P	P
9	श्यामसुंदर एस. दळवी	P	P	P	P	P	P	P	P	P	P
10	पवन हन. मोहरेकर	P	P	P	P	P	P	P	P	P	P
11	ओमप्रकाश भु. वाळके	P	P	P	P	P	P	P	P	P	P
12	शिवकुमार ओमप्रकाश वाळके	P	P	P	P	P	P	P	P	P	A
13	शम आर. गायकवाड	P	P	P	A	P	P	P	P	P	P
14	इमनेश्वर जी. जाधव	P	P	P	P	P	P	P	P	P	P
15	लक्ष्मण पी. गिराम	P	P	P	P	P	P	P	P	P	P
16	वचन एस. सोळंके	P	P	P	P	P	P	P	P	P	P
17	सुशान्त डी. जाधव	P	P	P	A	P	P	P	P	P	P
18	अंड. विनीत कुमार एस. शेटे	P	P	P	P	P	P	A	P	P	P



Completion Certificate

This is to certify that, the Sport Department has conducted Value Added Certificate Course in “Yogasan & Pranayam” for all students in the academic year 2018-19. For this total 42 students participated in the course and they have successfully completed the course. After completion of the certificate course the department issued all the participants certificates.

Director
Dept. of Sport
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed.

Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



केल्याने होत आहे रे । आर्ची केलेची पाहिजे ॥

Bhartiya Shikshan Prasarak Samstha Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon

Tq. Majalgaon Dist. Beed 431131 (M.S.)

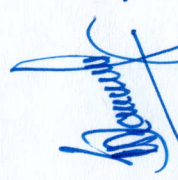
(NAAC Re-Accredited with 'B' Grade with CGPA 2.46)

Value Added Certificate Course

CERTIFICATE

This is to certify that, **Ku. Priyanka Kamlakar Kamble** has completed 32 Hrs Value Added Certificate Course in “**Yogasan & Pranayam**” conducted by Department of **Sport**, Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed from **21/12/2018** to **30/12/2018** in Academic Year **2018-19**.


Co-ordinator


Head of the Department


Principal



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon

Dist. Beed (MS)

(NAAC Reaccredited 'B' Grade with CGPA 2.46)

IQAC and Physics Department

Organizes

Value Added Certificate Course (2018-19)

on

Application of Physics in Medical and Agriculture Field

Dt. 04/09/2018 to Dt. 22/01/2019

(Duration: 32 Hrs.)



Coordinator

IQAC Coordinator

Principal

(Email: ssmmphy@gmail.com, ssmmiqac@gmail.com Website: www.siddheshwarcollege.com)

Contact: 9422244176, 9325028239, 9421440975

Bhartiya Shikshan Prasarak Sanstha, Ambajogai's
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed
Value Added Certificate Course (2018-19)
Application of Physics in Medical and Agriculture Field

Date - 06/08/2018

To,
The Principal,
Shri Siddheshwar Mahavidyalaya, Majalgaon

Subject: Permission to start Value Added Certificate Course in Application of Physics in Medical and Agriculture Field

Sir,

With reference to above subject our Physics Department wants to conduct Value Added Certificate Course in Application of Physics in Medical and Agriculture Field for all students in the academic year 2018-19. Please give permission to conduct the said course and oblige.

Thanking you.

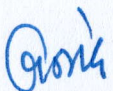


Head

Department of the Physics
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed

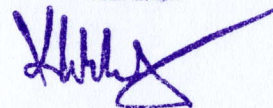
Copy to:

1. Co-ordinator IQAC, Shri Siddheshwar Mahavidyalaya, Majalgaon



Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)



Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

Physics Department

NOTICE

Dt. 06/08/2018

All the students are informed that, Physics Department is conducting Value Added Certificate Course in "Application of Physics in Medical and Agriculture Field" for all students in the academic year 2018-19. So, all the students informed to join this course.

For this all the students are informed to contact in the Physics Department and confirm your admission.

H. O. D.,

Head

Department of the Physics
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed

Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

Bhartiya Shikshan Prasarak Sanstha, Ambajogai's
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed
Value Added Certificate Course (2018-19)
Application of Physics in Medical and Agriculture Field

Course Syllabus

32 Hrs

Unit I:- LASER

Introduction of LASER Types of LASER Application of Laser in Medical field. Application of Laser in Agriculture Field.

Unit II: - Ultrasonic Waves.

Introduction of Ultrasonic waves. Piezo-electric oscillator, Magnetostriction oscillator. Detection of Ultrasonic waves. Application of ultrasonic wave in Medical field. Application of ultrasonic wave in Agriculture Field.

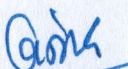
Unit: - III X-Ray

Introduction of X-ray, Types of X-ray Spectra. Features of continuous X-ray Continuous X-ray Application of X-ray

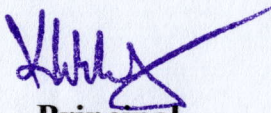
Course Outcome

Students will able

1. To develop a scientific attitude to make students open minded, critical and curious.
2. To develop an ability to work an own and to make them fit for the society.
3. To develop ability for the application of the acquired knowledge in the field of research so as to make our country self reliant and self sufficient.


In-charge


Coordinator
Head
Department of the Physics
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

Department of Physics

Time Table - Value Added Certificate Course

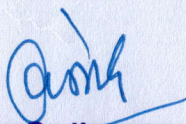
**“Application of Physics in Medical and Agriculture Field”
Academic Year 2018-19**



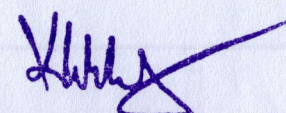
Time	Day	Tuesday	Wednesday	Thursday	Friday
05:00 pm To 05:50 pm		SRM	VPD	CSK	VPD

Subject Teachers:

- 1 Dr. S. R. Mitkari: SRM
- 2 Dr. V. P. Deshmukh: VPD
- 3 Dr. C. S. Kodarkar: CSK


Co-Ordinator
I Q A C

**Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)**


Principal
**Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131**



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed
Value Added Certificate Course
Application of Physics in Medical and Agriculture Field

Question Paper

1. What property of sound waves acts like the principle of ultrasound?
 - a) Reflection and Refraction
 - b) Reflection only
 - c) Refraction only
 - d) Propagation
2. Which of the following medical imaging modality other than ultrasound does not use any form of radiation?
 - a) PET Scan
 - b) SPECT Scan
 - c) CT Scan
 - d) MRI
3. What is the difference between soft and hard X-rays?
 - (a) Velocity
 - (b) Intensity
 - (c) Frequency
 - (d) Polarization
4. When X-rays pass through a strong uniform magnetic field, then they
 - (a) Do not get deflected at all
 - (b) Get deflected in the direction of the field
 - (c) Get deflected in the direction opposite to the field
 - (d) Get deflected in the direction perpendicular to the field
5. If the voltage of an X-ray tube is doubled, the intensity of X-rays will become
 - (a) Half
 - (b) Unchanged
 - (c) Double
 - (d) Four times
6. X-rays cannot be deflected by means of an ordinary grating due to
 - (a) Large wavelength
 - (b) High speed



- (c) Short wavelength
- (d) None of these

7. If the energy of K -shell electron is -40000 eV and if 60000 V potential is applied at Coolidge tube then which of the following X -rays will form

- (a) Continuous
- (b) White X -rays
- (c) Continuous and all series of characteristics
- (d) None of these

8. On increasing the number of electrons striking the anode of an X -ray tube, one of the following parameters of the resulting X -rays would increase

- (a) Penetration power
- (b) Frequency
- (c) Wavelength
- (d) Intensity

9. X -rays are

- (a) Stream of electrons
- (b) Stream of positively charged particles
- (c) Electromagnetic radiations of high frequency
- (d) Stream of uncharged particles

10. X -rays which can penetrate through longer distances in substance are called

- (a) Soft X -rays
- (b) Continuous X -rays
- (c) Hard X -rays
- (d) None of the above

11. For harder X -rays

- (a) The wavelength is higher
- (b) The intensity is higher
- (c) The frequency is higher
- (d) The photon energy is lower

12. X -rays region lies between

- (a) Short radiowave and visible region
- (b) Visible and ultraviolet region
- (c) Gamma rays and ultraviolet region
- (d) Short radiowave and long radiowave

13. The voltage applied across an X -ray tube is nearly

- (a) 10 V



- (b) 100 V
- (c) 10000 V
- (d) 10^6 V

14. X-rays are known to be electromagnetic radiation. Therefore, the X-ray photon has

- (a) Electric charge
- (b) Magnetic moment
- (c) Both electric charge and magnetic moment
- (d) Neither electric charge nor magnetic moment

15. X-rays were discovered by

- (a) Becquerel
- (b) Roentgen
- (c) Marie Curie
- (d) Von Laue

16. X-rays and gamma rays are both electromagnetic waves. Which of the following statements is true?

- (a) In general, X-rays have larger wavelength than gamma rays
- (b) X-rays have a smaller wavelength than that of gamma rays
- (c) Gamma rays have a smaller frequency than that of X-rays
- (d) Wavelength and frequency of X-rays are both larger than that of gamma rays

17. The penetrating power of X-rays increases with the

- (a) Increase in its velocity
- (b) Increase in its frequency
- (c) Increase in its intensity
- (d) Decrease in its velocity

18. A direct X-ray photograph of the intestines is not generally taken by the radiologists because

- (a) Intestines will burst on exposure to X-rays
- (b) The X-rays will not pass through the intestines
- (c) The X-rays will pass through the intestines without causing a good shadow for any useful diagnosis
- (d) A very small exposure of X-rays causes cancer in the intestines

19. The X-ray beam coming from an X-ray tube will be

- (a) Monochromatic
- (b) Having all wavelengths smaller than a certain maximum wavelength
- (c) Having all wavelengths larger than a certain minimum wavelength
- (d) Having all wavelengths lying between a minimum and a maximum wavelength



20. X-rays are in nature similar to

- (a) Beta rays
- (b) Gamma rays
- (c) de-Broglie waves
- (d) Cathode rays

21. Laser is

- a) Light source
- b) Sound source
- c) Both sound and light source
- d) None of these

22. In, electric field causes ionization of medium

- a) Optical pumping
- b) Electrical discharge
- c) Direct conversion
- d) All of these

23. Laser is ...

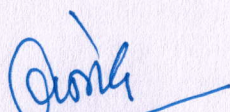
- a) Electric device
- b) Photoelectric device
- c) Photonic device
- d) None of these

24. For which of these areas can the ultrasound be taken for an infant but not for an adult?

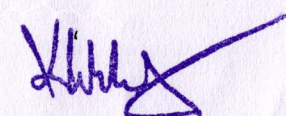
- a) Cranium
- b) Chest
- c) Arms
- d) Legs

25. What property of sound waves acts like the principle of ultrasound?

- a) Reflection and Refraction
- b) Reflection only
- c) Refraction only
- d) Propagation


Co-Ordinator
I Q A C

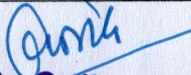
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)


Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

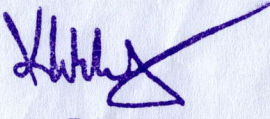
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30	PAUL SUJATA RANGNATH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
31	PAWAR POOJA BANDU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
32	PAWAR SATYABHAMA APPASAHEB	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
33	POHEKAR KAVERI GOPINATHRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
34	POTBHARE PRIYANKA KANTIRAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
35	RANJWAN DIVYA LALASAHEB	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
36	RASVE PRADUMNA PRALHAD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
37	MANE PRADIP VISHNU	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
38	MANE SHANKAR BHARATRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39	MANMODE MUKUND SUNIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
40	MARKAD YOGITA DATTATRAYA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
41	MASKE VAISHNAVI RAMESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
42	MASKE VISHAL LAXMANRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
43	MATE KOMAL SUBHASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
44	MENDAKE PRIYANKA SHRIMANT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
45	MITKARI NAKSHATRA PANCHAKSHRI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
46	MORE PRATIKSHA SUBHASH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
47	MULE KASHINATH BAPURAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
48	MULI ARTI ABHAYRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
49	MUNDE JAYSHRI ACHYUTRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
50	MUNDE SHRIRAM LAXMAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
51	MUNE MAYURI GITARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
52	NAGAPURKAR AUDUMBAR ANIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
53	NAIKWADE GYANBA MAHADEO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
54	NITRUDKAR RUTUJA NAVNATH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
55	PAITHANKAR JAYA NAVNATH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
56	PATEKAR USHA SHIVAJI	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
57	PATHAN AAHAD HABIB	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
58	PATHAN IMRAN TAYYAB	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
59	PATHAN MUKHIT USMANKHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
60	PATHAN SAMEER KADEKHAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
61	PATHAN SAMREEN SHAKER	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
62	PATHAN WASIM SALIM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
63	PAUL VISHAL RANGNATH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
64	PAWAR AARTI RAJESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
65	PAWAR ASHWINI BABAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
66	PAWAR BHARAT JAGAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
67	PAWAR KAUSHLYA VIKRAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P


Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)



Principal
Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed
Value Added Certificate Course (2018-19)
Application of Physics in Medical and Agriculture Field

Dt - 05/02/2019

Completion Certificate

This is to certify that, the Physics Department has conducted Value Added Certificate Course in "Application of Physics in Medical and Agriculture Field" for all students in the academic year 2018-19. For this total 67 students participated in the course and they have successfully completed the course. After completion of the certificate course the department issued all the participants certificates.

Head

Department of the Physics
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed

Co-Ordinator
I Q A C

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



केल्यानें होत आहे रे । आधीं केलेंची पाहिजे ॥

Bhartiya Shikshan Prasarak Sanstha Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon

Tq. Majalgaon Dist. Beed 431131 (M.S.)

(NAAC Re-Accredited with 'B' Grade with CGPA 2.46)

Value Added Certificate Course

CERTIFICATE

This is to certify that, **Mr. Rathod Vikas Baban** has completed 32 Hrs Value Added Certificate Course in **Application of Physics in Medical and Agriculture Field** conducted by Department of **Physics**, Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed from **04/09/2018 to 22/01/2019** in Academic Year **2018-19**.

Co-ordinator

Head of the Department

Principal



Bhartiya Shikshan Prasarak Sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon

Dist. Beed (MS)

(NAAC Reaccredited 'B' Grade with CGPA 2.46)

Department of Chemistry

Organizes

Value Added Course (2018-19)

On

Fundamentals of Chemistry & Laboratory Techniques

Date of Course: Date: - 03/09/2018 to 20/09/2018

(Duration: 32 Hrs.)

Coordinator

Principal

(Email:- pawarsanjay@gmail.com, vikasborgaonkar@gmail.com)

Website: www.siddheshwarcollege.com

Contact: 9850428436, 8275521761



Date: 09/07/2018

To,
The Principal,
Shri Siddheshwar Mahavidyalaya,
Majalgaon.

Subject: Permission to commence Value Added Certificate Course in
Fundamentals of Chemistry & Laboratory Techniques.

R/Sir,

With reference to above subject chemistry department wants to conduct value added certificate course in *Fundamentals of Chemistry & Laboratory Techniques* for all students in the academic year 2018-19. Please give permission to conduct the said course and oblige.

Thanking you.

Copy to:

1. Coordinator IQAC, Shri Siddheshwar Mahavidyalaya, Majalgaon

Yours faithfully

Dr. Y. V. Borgaonkar

Head

Department of the Chemistry
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed

Co-Ordinator
IQAC

Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)

Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131



केल्यानें होत आहे रे । आधीं केलेंची पाहिजे ।।

Bhartiya Shikshan Prasarak sanstha, Ambajogai's

Shri Siddheshwar Mahavidyalay, Majalgaon

Tq. Majalgaon Dist. Beed 431131 (MH)

(Art's, Science, Commerce)

Dr. Bhalchandra G. Karad

NAAC Grade 'B'

(M.Com., G.D.C. & A., M.Phil Ph.D.)

Office: (02443) 235475, 235901 Fax: 235475

Principal

Website: www.siddheshwarcollege.com

E-mail: siddheshwar.college@gmail.com

Date: 14/07/2018

To,
Head,
Department of chemistry,
Shri Siddheshwar Mahavidyalaya, Majalgaon.

Subject: Permission to commence the value added certificate course in
Fundamentals of Chemistry & Laboratory Techniques.

With reference to above subject and your application regarding to conduct value added certificate course in "*Fundamentals of Chemistry & Laboratory Techniques*" for all students in the academic year 2018-19. You are permitted to conduct the said course.

Principal

Principal

Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131

Copy to:

1. Coordinator IQAC, Shri Siddheshwar Mahavidyalaya, Majalgaon



Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

Department of Chemistry

NOTICE

Dt. 13/08/2018

All the students are informed that, Chemistry Department is conducting Value Added Certificate Course in '**Fundamentals of Chemistry & Basic Laboratory Technlques**' for all students in the academic year 2018-19. So, interested students should contact the faculty of chemistry department for their admission.

B.T.M.

Head.

**Department of the Chemistry
Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed**

Q.A.C.
**Co-Ordinator
I Q A C**

**Shri Siddheshwar Mahavidyalaya
Majalgaon Dist. Beed (M.S.)**

[Signature]
Principal

**Shri Siddheshwar Mahavidyalaya
Majalgaon, Dist. Beed 431 131**

Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed (M.S.)

NAAC Reaccredited 'B' Grade with CGPA 2.46

Department of Chemistry

Certificate Course in 'Fundamentals of Chemistry & Basic Laboratory Techniques'

2018-19

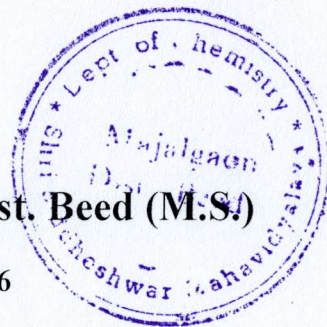
(Duration 32 hours)

Objectives of the course:

- 1) To give fundamental knowledge of chemistry to chemistry students.
- 2) By imparting fundamental knowledge of chemistry to students, they should learn easily the core knowledge.
- 3) Chemistry students should become skillful in experimental work.
- 4) To improve the practical knowledge of chemistry so that they can easily perform the practical work.

Course content:

- 1) **Physical and chemical reactions:** Definitions of physical and chemical changes. Concept of physical and chemical changes. Examples of physical and chemical changes.
- 2) **Acids and Bases:** General introduction of mineral acids. Strength of mineral acids. Handling skills of mineral acids. General introduction to common alkalis. Handling skills of alkalis. Environmental effects of acid rain. Acid-base equilibrium.
- 3) **Redox reaction:** Introduction to electrochemical series. Applications of electrochemical series and electrochemical cells. Common oxidizing and reducing agents.
- 4) **Chemical kinetics:** Introduction to chemical kinetics. Rate of reaction. Factors affecting the rate of reaction. Catalyst. Examples of catalysts. Applications of chemical kinetics and catalysts in daily life.
- 5) **Chemical bonding:** Introduction to bonding in different atoms. Types of bond. Bond energy. Examples of different bonding.
- 6) **Basic lab techniques:** Safety measures of handling chemicals, MSDS of some common chemicals, precision and accuracy, purification, fractional distillation, recrystallization, TLC, determination of some physical parameters of a compound such as melting and





boiling point, density, solubility, acidity and basicity, chromatography, fundamentals of gravimetric techniques.

Volumetric analysis, determination of acid contents in the given samples, determination of hardness of water, solvent extraction, preparation of standard solution.

Medium of instructions: English

Maximum marks: 50

Passing marks: 20

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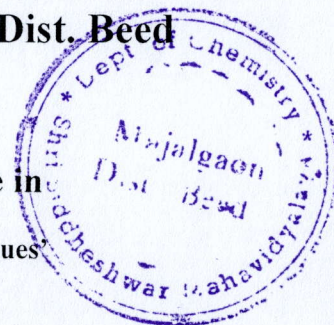
Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed

Department of Chemistry

Time Table - Value Added Certificate Course in

'Fundamentals of Chemistry & Basic Laboratory Techniques'

Academic Year 2018-19



Sr. No,	Date	Time	Name of Teacher
01	03/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
02	04/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
03	05/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
04	06/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
05	07/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
06	08/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
07	10/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
08	11/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
09	12/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar



10	13/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
11	14/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
12	15/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
13	17/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
14	18/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
15	19/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar
16	20/09/2018	03:10 to 03:50	Dr. Vikas Borgaonkar
		03:50 to 04:40	Asst. Prof. Sanjay Pawar

Co-Ordinator
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Department of Chemistry

Certificate Course Examination 2018-19

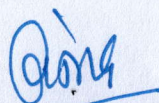
Course Name: Fundamentals of Chemistry & Basic Laboratory Techniques

Max. Marks: 50

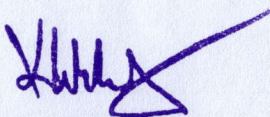
Time:- 1.30 Hrs

Q.1 Attempt any five (Each carry 10 marks)

- 1) What are the chemical and physical changes? Give their examples.
- 2) What are mineral acids? Give examples.
- 3) Which precautions should be taken while handling acids and bases?
- 4) How do you dispose of chemical waste in the lab?
- 5) What is the chemical classification in chemistry lab?
- 6) What are the three main causes of acid rain?
- 7) Explain the concept of oxidizing and reducing agents with suitable examples.
- 8) What is bond? Give the different types of bonds and their definitions.


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Attendance Sheet

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14	BURANGE SAVITA SAKHARAM	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
15	CHAVAN AKSHAY ANURATH	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
16	CHAVAN BALASAHEB BABURAO	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
17	CHAVAN NITIN RANGANATH	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
18	DADKE SHARDDHA SHAMRAO	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
19	DAHATONDE RADHA RAMRAO	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
20	DAKE PAVAN SANDIPAN	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
21	DAKE SHIVKANYA DATTATRAY	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
22	DALVI VIKAS GANESHRao	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
23	DATAR DATTATRAYA ATMARAM	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P



[Signature]

[Signature]

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[Signature]

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[Signature]

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Department of Chemistry

Value Added Certificate Course in

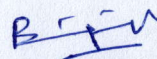
'Fundamentals of Chemistry & Basic Laboratory Techniques'

Academic Year 2018-19

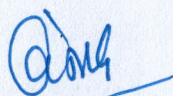


Completion Certificate

This is to certify that, the Chemistry Department has conducted Value Added Certificate Course In '**Fundamentals of Chemistry & Basic Laboratory Techniques**' for all students in the academic year 2018-19. For this total 23 students participated in the course and they have successfully completed the course. After completion of the certificate course the department issued all the participants certificates.

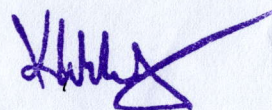

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केल्यानें होत आहे रे । आधीं केलेंची पाहिजे II

Bhartiya Shikshan Prasarak Sanstha Ambajogai's

Shri Siddheshwar Mahavidyalaya, Majalgaon

Tq. Majalgaon Dist Beed 431131 (M.S.)

(NAAC Re-Accredited with 'B' Grade with CGPA 2.46)

Value Added Certificate Course

CERTIFICATE

This is to certify that, **Ku. Burange Savita Sakharam** has completed 32 Hrs Value Added Certificate Course in “**Fundamentals of Chemistry and Laboratory Techniques**” conducted by Department of **Chemistry** Shri Siddheshwar Mahavidyalaya, Majalgaon Dist. Beed from **03/09/2018** to **29/09/2018** in Academic Year **2018-19**

Co-ordinator

Head of the Department

Principal