



शिवाजी विद्यापीठ, कोल्हापूर SHIVAJI UNIVERSITY, KOLHAPUR

Estd-1962 - recognized by UGC U/s 2(f) and 12 (B)
NAAC "A++" Grade with CGPA 3.52

Student Revaluation For Justification

Note: Once you submit request, you are not allowed to modify/cancel the request.

PRN No
Student Name Branch Name
Course Name Semester

Student Justification For Revaluation & Re-Verification Application

Select Jusitification For

Application Number

Select Subject

Enter Question Number Maximum 30 Characters (E.g QNo1 A)

Select Point Of Grievances

Enter Justification /Opinion

Maximum 250 Characters

Add Record

Go to Print Application Form

#	Subject Code	Subject Name	Question No	Point of Grievance	Justification
Edit	75043	/[73302] Chemistry Paper V & VI	Q. 3 (a)	Expected More Marks	This question carry 5 marks. I have written 5 advantages and 3 advantages of detergent and obtained 2 marks by examiner. But, i expect 4 marks (2 marks for advantages and 2 marks for disadvantages).

**Complaint Raised by Student Name:
Chougule Roham Parshwanath**



Verification(गुण पडताळणी)

(सूचना : संबंधीत परीक्षेचा निकाल संकेतस्थळावर प्रसिद्ध झालेल्या दिनांकापासून पासून १५ दिवसांच्या आत)

Photo Copy

(उत्तरपत्रिकेच्या छायांकित प्रती)

(सूचना : संबंधीत परीक्षेचा निकाल संकेतस्थळावर प्रसिद्ध झालेल्या दिनांकापासून पासून १५ दिवसांच्या आत)

Revaluation (उत्तरपत्रिकेची फेरतपासणी)

**** प्रथम फोटोकापी घेणे आवश्यक ****
(सूचना : फोटोकापी वितरण दिनांकापासून ७ (मुदत) दिवसांच्या आत)

Re-verification

(उत्तरपत्रिकेची पुनः गुण पडताळणी)

**** प्रथम फोटोकापी घेणे आवश्यक ****
(सूचना : फोटोकापी वितरण दिनांकापासून ७ (मुदत) दिवसांच्या आत)

Student PhotoCopy Feedback

पाठवलेल्या फोटोकापी बाबत काही शंका असल्यास विहित मुदतीत प्रतिसाद देऊ शकता

Student Ravaluation Justification

Update Bank Details

Online Payment Link

Logout

SHIVAJI UNIVERSITY, KOLHAPUR
Application for the Redressal of Grievances
After getting Photo/Xerox Copy/ies of the Answer Book/s

Application No. : **2205302274**PRN NO. : **2021030149**Seat No : **15867**

To,
 DIRECTOR, BOARD OF EXAMINATION & EVALUATION
 SHIVAJI UNIVERSITY,
 KOLHAPUR – 416004

Sir/Madam,

I request to reevaluate the answer book/s of 8238-/[2324] B.Sc. (CBCS) examination October - 2022 examination solved by me in

The details of examination are given below. The reasons of grievances are also mentioned clearly with points of objections to the valuation of my book/s question wise with justification.

Date : 05/10/2023

Yours faithfully
 chougule soham parshwanath

1. My particulars are as follows:

Full Name : chougule soham parshwanath

Correspondence A/p Bhoose ,
 Address :

Bhoose-416422.

Dist : Sangli (Maharashtra).

Mobile: 7028453062

Email: sohamchougule1008@gmail.com

Account Holder Name : Chougule Soham Parshwanath

Bank Name : UNION BANK OF INDIA

Branch Name : Soni

A/C Number: 434102010042474

IFSC Code : UBIN0543411

2. Particulars of Examination

Course : 8238-/[2324] B.Sc. (CBCS)

Sem. / Part : B.Sc. CBCS Semester III

Branch :

College : 84-Miraj Mahavidyalaya, Miraj.

Sr. No.	Name of Subject	Part Sem No.	Marks Obtained	Out Of
1	[73302] Chemistry Paper V & VI	3	34	100

Student Name:Chougule Soham Parshwanath
Marksheet Before Griveance

Fees Rs.: 500

Receipt No :

Date 19/04/2023

Transaction/DDNo. : 7426

Reasons of grievances with points of objections should be submitted in the following format with questions wise justification for each answer book/s to be revaluated.

- Students shall use separate sheet if required of the above format to provide the detailed information regarding the points of grievances and its question wise justification.
- The charges of revaluation Rs.500/- per paper are to be paid in cash at University office or Online Payment .
- The application must be accompanied along with the xerox copy of the Answer book/s obtained from the University office and should reach to University office seven days from the receipt of photo/xerox copy.
- The application incomplete in any respect and without justification will be rejected, without giving any reason and the fees paid shall not be refunded.
- For additional information please refer the University Order No.9315 dated 23-11-2005 and Circular No. SU/Exam/8418/dated 23-11-2005.

SHIVAJI UNIVERSITY, KOLHAPUR
Online Statement of Marks for : B.Sc. CBCS SemesterIII (Semester -3)
Examination : Oct-2022

Name : chougule soham parshwanath
Mother's Name : sangita
University PRN : 2021030149
College : Miraj Mahavidyalaya, Miraj.
Exam Center : Miraj Mahavidyalaya, Miraj.
Branch :

Seat No : 15867

Student Name: Chougule Soham Parshwanath
Marksheet After Griveance

		Category			Subject	
Paper Code	Paper / Subject Name	Category	Marks	Result	Marks	Result
B.Sc. CBCS SemesterIII						
73302	Chemistry Paper V & VI	Theory	36	PASS	36	PASS
73303	Botany Paper V & VI	Theory	30	FAIL	30	FAIL
73307	Microbiology Paper V & VI	Theory	36	PASS	36	PASS
Sem - 3 Result - FAIL						

Result Declared Date : 24/05/2023

- Note :**
1. Shivaji University, Kolhapur is not responsible for any inadvertent error that may have crept in the result being published on internet. The results published on internet are for immediate informatin to the examinees. Format of the online mark-sheet may not be same as original mark-sheet. Original Mark Sheets have been issued by the university via respective colleges.
 2. If any discrepancies found in the mark list, please submit an application in your respective college/university department with all necessary documents immediately. College/Department should collect all such discrepancies and communicate to university within seven (7) days after declaration of result.



SHIVAJI UNIVERSITY, KOLHAPUR

For University Exam only

Information to be filled by Student

(विद्यार्थ्याने भरावयाचा रकाना)

Day and Date :- Tuesday 14-02-2023

Language of Answer :- English

Examination :- BSC-II (Semester - III)

Question Paper Code No. :- SG-102

Subject :- Chemistry

Paper No. :- V

Section :-

No.SU/24 - (A) 324946

Jr. Supervisor's Sign : [Signature]

Students Sign : [Signature]

Seat No. 15R67

Seat No. in words Fifteen thousand eight hundred sixty seven

Centre Miraj Mahavidyalaya

Q. No.	Examiner Marks	Moderator Marks
1	06	
2	07	
3	05	
4		
5		
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7		
8		
9		
10		
11		
12		
TOTAL	181	
Signature	<u>[Signature]</u>	

IMPORTANT

As per M.P.UA 2016, maharashtra prevention of malpractices at University Board Exam Act 1982, ammendment 1991. Rules and Regulations, whoever is found in or near an examination hall by the invigilator or any other person appointed to supervise the conduct of the examination, copying answers to the question paper set at the examination, from any book, notes or answer papers of other candidates, of appearing at the examination for any other candidates or using any other unfair means, shall, on conviction, be punished with imprisonment for a term which may extend to six months, or with fine which may extend to five hundred rupees or with both.

Whoever abets any offence punishable under this Act shall be punishable with the punishment provided for the offence.

सूचना - महाराष्ट्र सार्वजनिक विद्यापीठ कायदा २०१६, महाराष्ट्र परीक्षा गैरप्रकार प्रतिबंधक कायदा १९८२ (सुधारणा १९९१) व विद्यापीठाचे नियमानुसार जो कोणी परीक्षा हॉलजवळ किंवा हॉलमध्ये पर्यवेक्षकांना किंवा परीक्षेसाठी नेमलेल्या कर्मचाऱ्यांना उत्तरांची पुस्तक नोट्स, किंवा अन्य विद्यार्थ्यांच्या उत्तरपत्रिकेतून नक्कल करताना आढळून येईल किंवा जवळ परीक्षा गैरव्यवहारासाठी वापरता येईल असे आक्षेपार्ह साहित्य बाळगता असेल तर सदरची बाब परीक्षा प्रमाद मानून संबंधित व्यक्ती शिक्षेस पात्र राहील.

महत्वाच्या सूचना :

- उत्तरपत्रिकेमध्ये अन्यत्र कोठेही बैठक क्र. (दिलेल्या जागेखेरीज) लिहू नये, तसेच अन्यत्र कोणत्याही प्रकारच्या खुणा करू नयेत. अशा तो ओखळ पटविण्याचा प्रयत्न मानल्यात येईल व असा परीक्षा प्रमाद शिक्षेस पात्र राहील.
- उत्तरास प्रश्न क्रमांक व उपप्रश्न क्रमांक लिहिणे अनिवार्य आहे.
- पूर्ण प्रश्नाचे उत्तर सलग व सुवाच्च अक्षरात लिहावे. विनाकारण संपूर्ण पान रिकामे सोडू नये.
- अवाचनीय अक्षरातील उत्तर शुन्य गुणासाठी ग्राह्य मानल्यात याईल.
- आकृत्याखेरीज सर्व उत्तरासाठी फक्त निळ्या शाईचा वापर करावा. अन्य शाईचा वापर परीक्षा प्रमाद समजण्यात येईल.
- एम.ए./एम.कॉम./एम.एस्सी./एम.एस.डब्ल्यू./एम.लिब. सायन्स इत्यादी परीक्षेसाठी ज्या वस्तुनिष्ठ उत्तरपत्रिका दिल्या जातात त्याम लिहिणे अनिवार्य आहे. मूळ उत्तरपत्रिकेमध्ये उत्तरे सोडविल्यास ती ग्राह्य मानली जाणार नाहीत याची संबंधित परीक्षार्थिनी नोंद घ्या.
- विद्यार्थ्यांनी परीक्षा हॉल जवळ/हॉलमध्ये मोबाईल/पेजर/अन्यआक्षेपाहं इलेक्ट्रॉनिक गॅजेट वापरल्यास सदरची बाब क प्रमाद मानून संबंधित व्यक्ति शिक्षेस पात्र राहतील व भारतीय माहिती व तंत्रज्ञान कायदा २००८ (सुधारणा २०१५) कारवाई केली जाईल.
- उत्तरपत्रिकेमध्ये आवश्यक जागेचा समास (मार्जिन)अगोदरच छपाई केली असल्याने इतर जादाचा समास/मार्जिन सोडू नये अन्य प्रमाद समजण्यात येईल.
- विद्यार्थ्यांना मूळ उत्तरपत्रिकेशिवाय जादाची पुरवणी मिळणार नाही याची कृपया नोंद घ्यावी.

IMPORTANT INSTRUCTIONS

- Do not write seat number anywhere except at the space provided for it. If seat number or any mark indicates identity is/are found anywhere, it will be treated as malpractice and lapse. Such malpractice punishable under Maharashtra. Public University's Act 2016
- It is necessary to write the Question No. and sub Question Number before answer.
- Write the complete answer in sequential manner and then start the next question in readable handwriting page in between.
- Answers in an illegible & undecipherable handwriting are liable to be marked as zero.
- Use of blue color ink (except diagrams) is permitted.
- Candidates must write the answers of the objective questions in the Separate answer book if provided. Candidates should take note that answers of the objective questions solved in main answerbook will not be considered.
- Use of Mobile Phone/Electronic Gadgets is strictly Prohibited. If found appropriate action will be taken as per provisions in Indian Information Technology Act 2008 (amendment 2015)
- Extra margin other than Printed margin /unnecessary empty space between answers is not allowed.
- Additional Supplement will not be issued.

Q. No.	Verification Marks	Remarks
1		
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TOTAL		
Signature		

कार्यालयीन वापराकरिता	Q.1				TOTAL				TOTAL
Office use only	04	02			06				



Q. No.

1.

B.

a) The device which is used to determine the surface tension of liquid is known as stalagmometer.

b) On dilution, equivalent Conductivity increases.

c) langmuir's adsorption isotherm takes the form of Freundlich adsorption isotherm at high pressure.

d) Half life of third order reaction, $t_{1/2} = \frac{8}{2k a^2}$

e) The radioactive disintegration is an example of first order reaction.

A)

a) $i = \frac{U}{U+V}$

The loss of concentration around any electron is proportional to the speed of the ion moving away from it.

b) Activation energy is the min. amount of energy that must be provided for compounds ^{to the} resulting in chemical reaction.



सुचना : परिक्षक/परिनिरीक्षक यांनी खालील कोष्टकामध्येच गुणदान करावे.

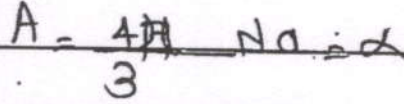
Q. No.				TOTAL				TOTAL	कार्यालयीन वाप
Marks									Office use

4

Q. No.

e) Ionising radiation - α - β - γ (gamma) rays.

d)



e)

The mainly two types of adsorption
i) Physical fii) Chemical

02

कार्यालयीन वापराकरिता	Q.3					TOTAL				TOTAL
Office use only	02+03					05				



Q. No.

3

c) A emission of rays α - β - γ - from unstable nuclei to produce daughter elements emits reaction radiation produce the another daughter element. This process continuous limits the stable nuclei formed. This process is known as radioactivity.

The rate of radio activity & radioactive decay of parent element (i.e. radioactive decay of formation of daughter element) is equal to reactive decay of radioactive equilibrium.

d) The Conductometric of velocity 'N' of a liquid can be determine directly by passing a liquid through following formula derived by

$$n = \frac{P \pi r^4 t}{8 \eta l}$$

where 't' is time required for 'v' ml of liquid flow through a capacity tube of length 'l' & radius 'r' on supplied pressure

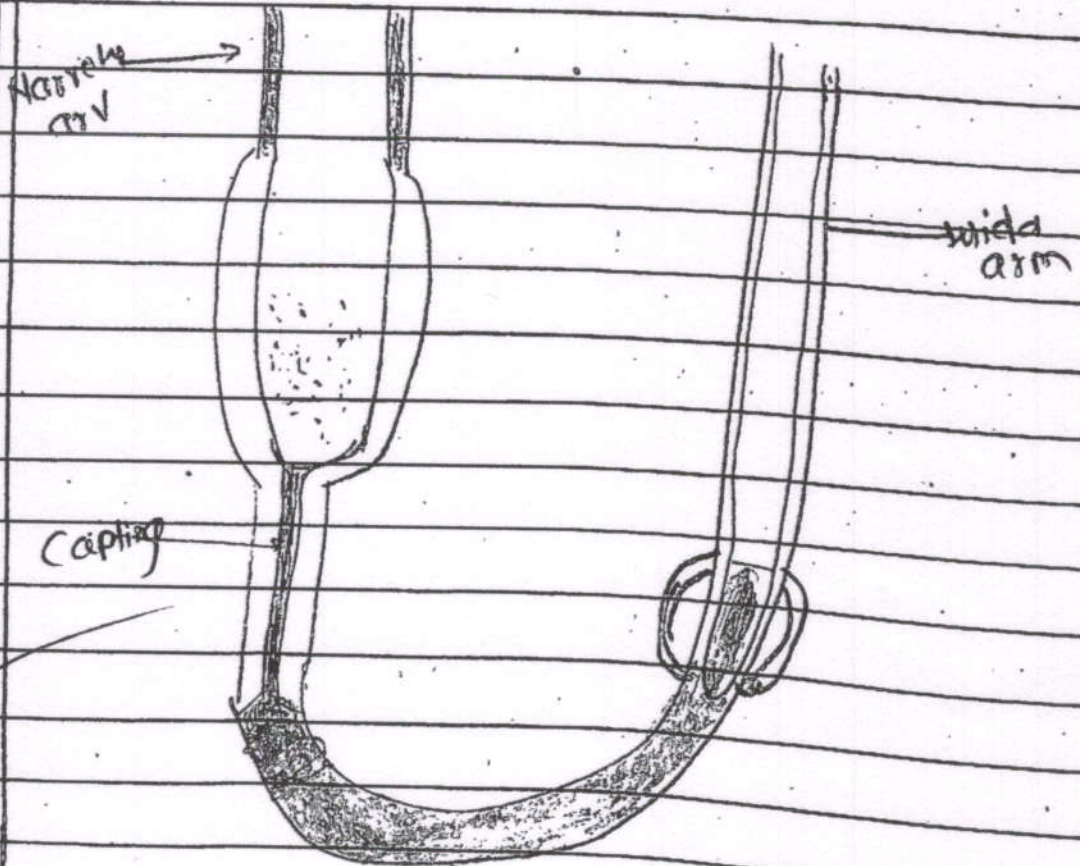
सुचना : परिक्षक/परिनिरिक्षक यांनी खालील कोष्टकांमध्येच गुणदान करावे.



6

Q. No.				TOTAL				TOTAL	कार्यालयीन वाप
Marks									Office use

Q. No.



03

Ostwald's viscometer

कार्यालयीन वापराकरिता	Q.2				TOTAL				TOTAL
Office use only	05	02	—	—	07				



Q. No.

2.

c)

Construction & working :

The instrument with its principle of operation is illustrated diagrammatically. The optical raetrometer is based the critical angle principle.

i) A mirror m

ii) The prism bar P & which can be rotated as whole with the help of the adjusting screw of P.

iii) A fixed telescope T.

A thin film of the liquid whose study is placed between the two prisms P & of d. The liquid must have a refraction index lower than of the glass prism & so that the critical angle phenomenon could be observed.

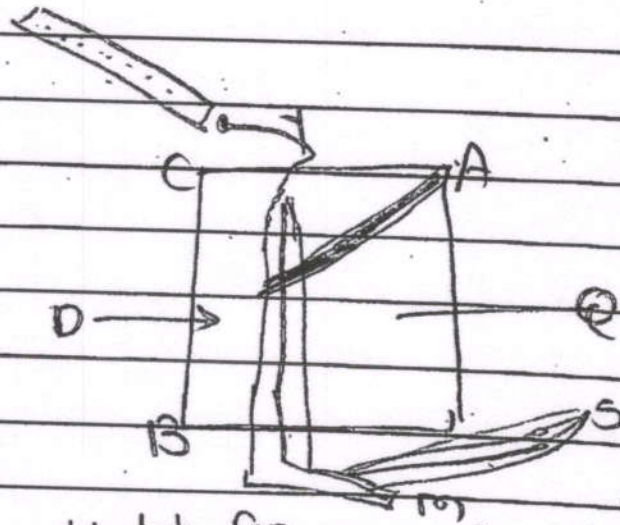
The surface P' so that the critical angle phenomenon could be observed. The surface of prism P is polished white, with that is finally ground.

Prism P & are held in contact with each other with the help of clip in a metal case.



Q. No.				TOTAL				TOTAL	कार्यालयीन वापर
Marks									Office use

Q. No.



Optical principle

Light for a surface (S) is deflected
 first on a the mirror (B) which reflects it
 towards the prism (A) with upper ground face
 with acts as a diffusing screen.

This illuminates the upper ground face of
 this prism on passing through the fixed
 telescope & a band of light due to rays
 which pass obliquely. The prism box is
 rotator of the light based fittings having edge
 of the light based is screen to (S) side with
 the cross with f in the telescope.

Each coating of the prism
 corresponds of define critical angle of f
 hence . definative value of refractive includes
 'n' which can be read off directly on the
 arranged scale & by means of the eye piece

If white light is employed
 diffraction colored bands is seen the
 telescope. This is made up of the colours f
 removed by the adjusting compensating prism

सुचना : परिक्षक/परिनिरिक्षक यांनी खालील कोष्टकांमध्येच गुणदान करावे.

कार्यालयीन वापराकरिता
Office use only

					TOTAL				TOTAL



9

Q. No.

☐☐

attached the nose of the telescope.

Since the temperature control is of great important in determining the refractive index, the two prism are enclose in a water jacket in order to maintain the constant temperature.

03

05

10



सुचना : परीक्षक/परिनिरिक्षक यांनी खालील कोष्टकांमध्येच गुणदान करावे.

Q. No.				TOTAL			TOTAL	कार्यालयीन वापर
Marks								Office use only

Q. No.

3

e)

Conductometric measurement:

In such titration acid is taken in the conductivity cell or cell is dipped in acid solution taken in beaker or conductivity bridge. A base is filled in the buret. Initial conductivity of acid solution is measure after gradually added to the acid solution & the conductivity is measure after each addition small volume of a base or alkali. A graph of conductivity against volume of alkali added plotted where intersection lines are obtained.

कार्यालयीन वापराकरिता					TOTAL				TOTAL
Office use only									



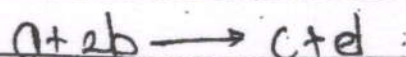
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2

b)

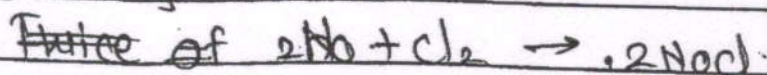
i) The third order reaction is chemical reaction where rate of reaction is proportional to the concentration of each reacting molecules. In this re.

ii) In this reaction the rate is usually determined that the variation of 3 concentration terms:



* third example reactions:

i) let's consider the reaction between nitric oxide & chloride

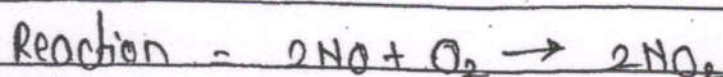


Rate, ~~are~~ $r = k[\text{NO}]^2[\text{Cl}_2]$

order of above reaction = some exponent of nitric oxide & chloride order.

$$= 2 + 1 = 3$$

* let's consider the reaction between nitric oxide & oxygen.



Rate = $k[\text{NO}]^2[\text{O}_2]$

$$\text{Order} = 2 + 1 = 3$$



12

Q. No.				TOTAL				TOTAL	कार्यालयीन वापर
Marks									Office use only

Q. No.

* kinetic equation of 2nd order reaction -

$$\text{Rate} = \frac{d[A]}{dt} = -k[A]^2$$

$$\frac{d[A]}{[A]^2} = \int_0^t -k dt =$$

$$\frac{-1}{2[A]} =$$

$$\frac{-1}{2[A]^2} \Big|_{[A]_0}^{[A]} = \frac{-kt}{1}$$

$$\frac{-1}{2[A]} - \frac{1}{2[A]_0^2} = -kt$$

$$\frac{-1}{2[A]} + \frac{1}{[A]} = -kt$$

02

023416



SHIVAJI UNIVERSITY, KOLHAPUR

For University Exam only

Information to be filled by Student

(विद्यार्थ्याने भरावयाचा रकाना)

Day and Date :- Wednesday 15-02-2023Language of Answer :- EnglishExamination :- B.Sc-II (Semester-II)Question Paper Code No. :- SG-109Subject :- ChemistryPaper No. :- VI

Section :-

No.SU/24 - (A) 324985

Jr. Supervisor's Sign :-

Students Sign :- JohanSeat No. 15867Seat No. in words Fifteen thousand eight hundred sixty sevenCentre Miraj Mahavidyalaya Miraj

Q. No.	Examiner Marks	Moderator Marks
1	05	05
2	04	04
3	07	07
4		
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10		
11		
12		
TOTAL	16	16
Signature	<u>Pratibha</u>	<u>SL</u>
	Q.C. - O.K.	R

IMPORTANT

As per M.P.UA 2016, maharashtra prevention of malpractices at University Board Exam Act 1982, ammendment 1991. Rules and Regulations, whoever is found in or near an examination hall by the invigilator or any other person appointed to supervise the conduct of the examination, copying answers to the question paper set at the examination, from any book, notes or answer papers of other candidates, of appearing at the examination for any other candidates or using any other unfair means, shall, on conviction, be punished with imprisonment for a term which may extend to six months, or with fine which may extend to five hundred rupees or with both. 2205204088-75043

Whoever abets any offence punishable under this Act shall be punishable with the punishment provided for the offence.

सूचना - महाराष्ट्र सार्वजनिक विद्यापीठ कायदा २०१६, महाराष्ट्र परीक्षा गैरप्रकार प्रतिबंधक कायदा १९८२ (सुधारण १९९१) व विद्यापीठाचे नियमानुसार जो कोणी परीक्षा हॉलजवळ किंवा हॉलमध्ये पर्यवेक्षकांना किंवा परीक्षेसाठी नेमलेल्या कर्मचाऱ्यांना उत्तरांची पुस्तक नोट्स, किंवा अन्य विद्यार्थ्यांच्या उत्तरपत्रिकेतून नक्कल करताना आढळून येईल किंवा जवळ परीक्षा गैरव्यवहारासाठी वापरता येईल असे आक्षेपार्ह साहित्य बाळगता असेल तर सदरची बाब परीक्षा प्रमाद मानून संबंधित व्यक्ती शिक्षेस पात्र राहील.

- उत्तरपत्रिकेमध्ये अन्यत्र कोठेही बैठक क्र. (दिलेल्या जागेखेरीज) लिहू नये, तसेच अन्यत्र कोणत्याही प्रकारच्या खुणा करू नयेत. अशा खुणा आढळत आढळ पटविण्याचा प्रयत्न मानल्यात येईल व असा परीक्षा प्रमाद शिक्षेस पात्र राहील.
- उत्तरास प्रश्न क्रमांक व उपप्रश्न क्रमांक लिहिणे अनिवार्य आहे.
- पूर्ण प्रश्नाचे उत्तर सलग व सुवाच्य अक्षरात लिहावे. बिनाकारण संपूर्ण पान रिकामे सोडू नये.
- अवाचनीय अक्षरातील उत्तर शुन्य गुणप्राप्तीसाठी ग्राह्य मानल्यात येईल.
- आकृत्याखेरीज सर्व उत्तरासाठी फक्त निळ्या शाईचा वापर करावा. अन्य शाईचा वापर परीक्षा प्रमाद समजण्यात येईल.
- एम.ए./एम.कॉम./एम.एस्सी./एम.एस.डब्ल्यू./एम.लिब. सायन्स इत्यादी परीक्षेसाठी ज्या वस्तुनिष्ठ उत्तरपत्रिका दिल्या जातात त्यामध्येच परीक्षा लिहिणे अनिवार्य आहे. मूळ उत्तरपत्रिकेमध्ये उत्तरे सोडविल्यास ती ग्राह्य मानली जाणार नाहीत याची संबंधित परीक्षार्थींनी नोंद घ्यावी.
- विद्यार्थ्यांनी परीक्षा हॉल जवळ/हॉलमध्ये मोबाईल/पेजर/अन्यआक्षेपाहार् इलेक्ट्रॉनिक गॅजेट वापरल्यास सदरची बाब कायदेशीर परीक्षा प्रमाद मानून संबंधित व्यक्ति शिक्षेस पात्र राहतील व भारतीय माहिती व तंत्रज्ञान कायदा २००८ (सुधारणा २०१५) नुसार कायदे कारवाई केली जाईल.
- उत्तरपत्रिकेमध्ये आवश्यक जागेचा समास (मार्जिन)अगोदरच छपाई केली असल्याने इतर जादाचा समास/मार्जिन सोडू नये अन्यथा असा प्रमाद समजण्यात येईल.
- विद्यार्थ्यांना मूळ उत्तरपत्रिकेशिवाय जादाची पुरवणी मिळणार नाही याची कृपया नोंद घ्यावी.

IMPORTANT INSTRUCTIONS

- Do not write seat number anywhere except at the space provided for it. If seat number or any mark/s, symbol indicates identity is/are found anywhere, it will be treated as malpractice and lapse. Such malpractice and lapse punishable under Maharashtra Public University's Act 2016
- It is necessary to write the Question No. and sub Question Number before answer.
- Write the complete answer in sequential manner and then start the next question in readable handwriting. Do Not page in between.
- Answers in an illegible & undecipherable handwriting are liable to be marked as zero.
- Use of blue color ink (except diagrams) is permitted
- Candidates must write the answers of the objective questions in the Separate answer book if provided to them. Candidates should take note that answers of the objective questions solved in main answerbook will not be considered.
- Use of Mobile Phone/Electronic Gadgets is strictly Prohibited. If found appropriate action will be initiated as per provisions in Indian Information Technology Act 2008 (amendment 2015)
- Extra margin other than Printed margin /unnecessary empty space between answers is not allowed.
- Additional Supplement will not be issued.

Q. No.	Verification Marks	Revaluation Marks
1		
2		
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11		
12		
TOTAL		
Signature		

सुचना : परिक्षक/परिनिरीक्षक यांनी खालील कोष्टकामध्येच गुणदान करावे.

कार्यालयीन वापराकरिता				TOTAL				TOTAL
Office use only								



3

Q. No.

1

13

- The number of moles of solute present in one dm^3 of solution is known as molarity.
- The reboiler is also called distillation flask.
- The standard reduction electrode potential of Zn is less than Fe.
- In Kraft pulping for digestion chemicals used are Na_2SO_4 & NaOH .
- Deriphat is an example of zwitterionic surfactant.

सूचना : परीक्षक/परिनिरीक्षक यांनी खालील कोष्टकांमध्येच गुणदान करावे.



4

Q. No.	1	A	B		TOTAL	1			TOTAL	कार्यालयीन
Marks	2	3	3		05	✓	✓	✓	✓	Office

Q. No.

1

A)

a) Mineral coal, carbon & hydrocarbons, coal natural gas, crude petroleum.

b) Rocks of earth from which metal can be taken is called ore.

c) Electrochemical series in which elements are arranged in increasing order of their standard electrode potential.

d) zwitterionic detergents like CHAPS or SB12 combine the properties of ionic & non-ionic detergents.

e) craft process.

कार्यालयीन वापराकरिता					TOTAL				TOTAL
Office use only									



Q. No.

3

a)

- The advantages of detergent :

- i) They are most suited for dry cleaning of wool silk fibres because of their higher solubility in organic.
- ii) The material needed for the manufacture of detergent are there are available in plenty from petrochemical industry.
- iii) Compared to soap detergent are more potent (surface are) at much lower concentration.
- iv) Detergent are excellent haring agents. They have consider germinate properties.
- v) The wider range of detergent allows chemicals to fit its role required to particular.

- The disadvantages of detergent -

- i) Use of Phosphorus compound in detergent has eutrophication effect on ponds & lakes, river, etc.
- ii) The phosphorus substitutes develops. So far filter on ponds lake, f.
- iii) The firm product by same detergent is so sensitive & stable that it is formed over river, lakes, ponds, etc. sewage water.

कार्यालयीन वापराकरिता					TOTAL				TOTAL
Office use only									



Q.No.

3

f)

i) Normality - Normality is defined as number of gram equivalent present in one dm³ of solution.

ii) Molarity -

molarity is defined as number of moles of solute present one dm³ of solution.

$$\text{Molarity} = \frac{\text{No. of moles of solute}}{\text{one dm}^3 \text{ of solution}}$$

iii) Molality -

Molality is defined as number of moles of solute present in one dm³ of solvent.

$$\text{Molality} = \frac{\text{No. of moles of solute}}{\text{one dm}^3 \text{ of solvent}}$$

iv) Gram Parts per million solution -

$$= \frac{\text{gram of solute}}{\text{gram of solution}} \times 10^6$$

Parts per million solution is defined

v) Parts per billion as gram of solute dissolved in gram of solution

vi) It is the number of unit of mass of a contaminant parts per ~~ten~~ billions of total mass.

सुचना : परिक्षक/परिनिरिक्षक यांनी खालील कोष्टकांमध्येच गुणदान करावे.



8

Q. No.	2			TOTAL	2			TOTAL	कार्यालयीन वा
Marks	2+2	±		04	4	—	—	4	Office use

Q. No.

2

b)

Distillation -

Distillation is a process in which liquid vapourised vapours are condensed to form liquid.

Distillation process is done by using equipment still. It consists of distillation flask. The liquid is heated in reboiler. Produced vapours.