

To,
The Principal
Sharanabasaveshwar College of Science
Kalaburagi - 3

Sub: Submission of COC "Chemical Analysis" details for the
academic year 2018-19


Ref: Your letter F. No: 4-347/2011 (COC), dated: 12.01.2012

Sir,

With reference to the above mentioned subject, I am here
with submitting Career oriented course - "Chemical Analysis" detail
information for the academic year 2018-19.

Kindly acknowledge the receipt of the same.

Thanking you



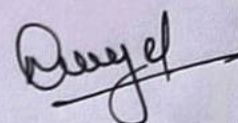
Coordinator

Co-ordinator

UGC, Carrier Oriented Course (Chemical Analysis):
Sharnbasveshwar College of Science
GULBARGA-3

Encl: -

1. UGC Course Sanction Letter
2. GUG Approval & syllabus copy
3. Poojya Appaji's permission letter to continue COC
4. Student enrollment list
5. Result
6. Remuneration paid to coordinator & staff



HOD Head

Department of Chemistry
Sharnbasveshwar College of Science
KALABURAGI



**SHARNBASVESHWAR COLLEGE OF SCIENCE,
GULBARGA-585103, KARNATAKA**
(Affiliated To Gulbarga University, Gulbarga)

Progress Report
On
Career Oriented Course - “*Chemical Analysis*”
For the academic year 2018-19

Approved By Gulbarga University Gulbarga &
Sanctioned By



ज्ञान-विज्ञान विमुक्तये

University Grant Commission
New Delhi-110002



ज्ञान-विज्ञान विभूतये

UNIVERSITY GRANTS COMMISSION
35-FEROZSHAH ROAD
NEW DELHI-110 001

F. No. 4- 347/2011(COC)

The Under Secretary (FD-III)
University Grants Commission
New Delhi-110002

January, 2012
12 JAN 2012

Sub: - Release of Grant-in-aid to Shri. Sharanabasaveshwar Science College, Gulbarga, Dist. Gulbarga, Karnataka-585103 under the UGC scheme of Career Oriented Courses-reg.

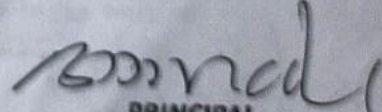
Sir,

With reference to the proposal submitted by Shri. Sharanabasaveshwar Science College, Gulbarga, Dist. Gulbarga, Karnataka-585103 under the UGC scheme of Career Oriented Courses, I am directed to convey the approval of the University Grants Commission for starting the following Career Oriented Courses in the above mentioned College from the academic year 2011-12.

Courses Approved	Seed Money approved (Rs. in lakh)	Grant released (90%)
<u>Science</u>		
1. Hardware and Networking	Rs. 10.00	Rs. 9,00,000/-
2. Chemical Analysis	Rs. 10.00	Rs. 9,00,000/-
Total	Rs. 20.00	Rs. 18,00,000/-

I am also directed to convey the sanction of the University Grants Commission for payment of Rs. 18,00,000/- (Rupees Eighteen Lakh only) to the Principal, Shri. Sharanabasaveshwar Science College, Gulbarga, Dist. Gulbarga, Karnataka-585103 as 90% grant (Seed Money) under the scheme of Career Oriented Courses.

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SHARANBASAVESHWAR COLLEGE
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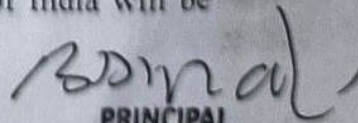
The assistance available in the programme is only in the form of a one - time as "Seed Money". The amount may be utilized for the purchase of books and journals augmentation of laboratory facilities, equipment and payment of remuneration to the Guest faculty only.

The terms and conditions of the approval and grant released are as per the guidelines of the scheme.

1. The sanctioned amount is debitible to the following Heads and is valid for payment during the current financial year 2011-12.

S. No.	Component	Head of A/c	Amount
1.	General 77.5%	5.(i) Code No. 31	13,95,000/-
2.	SC 15%	1B h(i) (b) Code No. 31	2,70,000/-
3.	ST 7.5%	1B h(ii) (b) Code No. 31	1,35,000/-

2. The amount of grant shall be drawn by the Under Secretary (Drawing and Disbursing Officer), University Grants Commission on the Grants -in -aid bill and shall be disbursed to the credited to the Principal, **Shri. Sharanabasaveshwar Science College, Gulbarga, Dist. Gulbarga, Karnataka-585103** through Demand Draft/Mail Transfer.
3. The grant is subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma submitted by the University/College/Institution.
4. The University/College shall maintain proper accounts only on approved items of expenditure.
5. The Utilization Certificate to the effect that the grant has been utilized for the purpose for which it was sanctioned shall be furnished to the University Grants Commission **On receipt of the same, 10% grant would be sanctioned to the grantee Institution.**
6. The assets acquired wholly or substantially out of the University Grants Commission grant shall not be disposed or encumbered or Utilized for the purposes other than those for which the grant was given, without proper sanction of the University Grants Commission and should, at any time the college ceases to function, such assets shall revert to the University Grants Commission.
7. A Register of Assets acquired wholly or substantially out of the grant shall be maintained by the University in the prescribed form.
8. The grantee institution shall ensure the Utilization of grants-in-aid for which it is being sanctioned/paid. In case non-utilization/part utilization, the simple interest @ 10% per annum as amended from time to time on unutilized amount from the date of drawl to the date of refund as per provisions contained in General Financial Rules of Govt. of India will be charged.


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OF SCIENCE, GULBARGA

9. The University/ College shall implement the programme from the academic year 2011-12 positively and UGC to be informed in this regard.
10. The University/Institute/College is strictly following the UGC Regulations on curbing the menace of Ragging in Higher Education Institutions 2009.
11. The interest earned by the University/College/Institute on this grants in aid shall be treated as additional grant and may be shown in the U.C./Statement of expenditure to be furnished by grantee institutions.
12. The University/College shall follow strictly all the instructions issued by the Govt. of India from time to time with regard to reservation of posts for scheduled Caste and Scheduled Tribes.
13. The University/College shall fully implement the Official Language Policy of Union Govt. and comply with the Official Language Act, 1963 and Official Language (use for officially purpose of the Union) Rules, 1976 etc.
14. The Sanction issues in exercise of the delegation of powers vide Commission office order No. 25/92 dated May.01, 1992.
15. **The Universities/ Colleges shall submit Annual Progress Report to the UGC office.**
16. **The Universities/ Colleges already running the Career Oriented Courses and completed 5 years would submit the audited utilization certificate/ statement of expenditure immediately to the UGC for settlement the accounts.**
17. The funds to the extent are available under the scheme and have been noted in BCR for the year 2011-12 at S. No. _____ Page No. _____.

Yours faithfully,

(Sunita Chugh)
Under Secretary

Copy forwarded for information and necessary action to:

1. The Principal, Shri. Sharanabasaveshwar Science College, Gulbarga, Dist. Gulbarga, Karnataka-585103 to intimate the receipt of the letter as well as the receipt of the sanction grant.
2. The Secretary to the Government of Karnataka, Deptt. of Education, Bangalore.
3. The Registrar, Gulbarga University, Jnana Ganga, Gulbarga-585106.
4. Office of Director, General, Audit General Revenues, AGCR Bldg., I.P. Estate, New Delhi.
5. Guard File, UGC, New Delhi.

Usha
(Usha Naidu)
Section Officer

Roopada
PRINCIPAL
SHARNBASVESHWAR COLLEGE
OF SCIENCE, GULBARGA

Bysach
PRINCIPAL
SHARNBASVESHWAR COLLEGE
OF SCIENCE, GULBARGA



GULBARGA UNIVERSITY
"Jnana Ganga", GULBARGA - 585 106, Karnataka, India.



08472-263202

Fax: 08472-263206

E-Mail: root@guluni.kar.nic.in

Grams: UNIGUL

ಕ್ರ. ಸಂ. ಗುವಿಗು/ವಿಮವಿ/ಬಿಟಿಎಸ್/2012-13/ ೦/

ದಿನಾಂಕ: 1-4-13

ಅಧಿಸೂಚನೆ

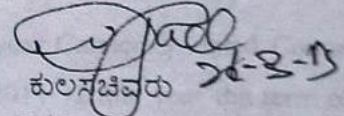
ವಿಷಯ: 2012-13 ನೇ ಸಾಲಿನಿಂದ "Chemical Analysis of Water" COP
ಕೋರ್ಸಿನ ಸ್ನಾತಕ ಕೋರ್ಸಿನ ಪಠ್ಯಕ್ರಮ ಜಾರಿಗೊಳಿಸುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: 1) ರಸಾಯನಶಾಸ್ತ್ರ ಸ್ನಾತಕ ಅಧ್ಯಯನ ಮಂಡಳಿ
ನಿರ್ಣಯ (1) ದಿನಾಂಕ: 28.09.2012

2) ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ಸಭೆಯ ಗೊತ್ತುವಳಿ ಸಂಖ್ಯೆ 23
ದಿನಾಂಕ: 23.11.2012

ಉಲ್ಲೇಖ (2) ರ ವಿದ್ಯಾವಿಷಯಕ ಪರಿಷತ್ ನಿರ್ಣಯದಂತೆ, "Chemical Analysis of Water" ಸ್ನಾತಕ "Career Orientation Programme" ನ ಕೋರ್ಸಿನ ಪಠ್ಯಕ್ರಮವನ್ನು 2012-13ನೇ ಸಾಲಿನಿಂದ ಜಾರಿಗೆ ಬರುವಂತೆ ಈ ಮೂಲಕ ಪ್ರಕಟಗೊಳಿಸಲಾಗಿದೆ.

ಸದರಿ ವಿಷಯವನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳ ಹಾಗೂ ಸಂಬಂಧಪಟ್ಟ ಶಿಕ್ಷಕರ ಗಮನಕ್ಕೆ.


ಕುಲಸಚಿವರು 28-3-13

ಗುಲಬರ್ಗಾ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗುಲಬರ್ಗಾ

ಗೆ.

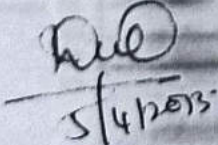
- 1) ಅಧ್ಯಕ್ಷರು, ರಸಾಯನಶಾಸ್ತ್ರ ಅಧ್ಯಯನ ಮಂಡಳಿ, ಗುಲಬರ್ಗಾ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗುಲಬರ್ಗಾ.
- 2) ಸಂಬಂಧಪಟ್ಟ ಕೋರ್ಸು ಹೊಂದಿರುವ ಮಹಾವಿದ್ಯಾಲಯದ ಪ್ರಾಂಶುಪಾಲರಿಗೆ.

ಪ್ರತಿ:

- 1) ಕುಲಸಚಿವರು (ಮೌಲ್ಯಮಾಪನ), ಗುಲಬರ್ಗಾ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗುಲಬರ್ಗಾ.
- 2) ಕುಲಪತಿಗಳ ಆಪ್ತ ಕಾರ್ಯದರ್ಶಿ / ಕುಲಸಚಿವರ ಆಪ್ತ ಸಹಾಯಕರ ಮಾಹಿತಿಗಾಗಿ.

ಶ್ರೀ ಕೃಷ್ಣಾಚಾರ್ಯ ಶರಣಬಸವೇಶ್ವರ ಅಶ್ವಿನ ಮಂಟ್ರಿಯಲಯ, ಗುಲಬರ್ಗಾ

(ಸಹ) ಕುಲಸಚಿವರು
Chemical Analysis Coordinator


5/4/2013



Sharnbasveshwar
College of Science
Kalaburagi - 585103
(Karnataka)

Estd. 1956



ಶರಣಬಸವೇಶ್ವರ
ವಿಜ್ಞಾನ ಮಹಾವಿದ್ಯಾಲಯ,
ಕಲಬುರಗಿ-೫೮೫ ೧೦೩
(ಕರ್ನಾಟಕ)



Institutions Run by Centenary Celebrated

Sharnbasveshwar Vidya Vardhak Sangha, Gulbarga	2013
Sharnbasveshwar University, Gulbarga	2013
Sharnbasveshwar Vidya Vardhak Sangha, Gulbarga	1903
Sharnbasveshwar Engineering College for Women, Gulbarga	2011
Sharnbasveshwar Institute of Engineering & Technology, Gulbarga	2002
Sharnbasveshwar Institute of Engineering Science & Technology	2011
Sharnbasveshwar in Comp. & Digital Electronics	
Sharnbasveshwar Poly Engineering College, Shorapur	2010
Sharnbasveshwar Appa Engineering College, Bidar	2011
Sharnbasveshwar Appa Institute for MCA, Gulbarga	1999
Sharnbasveshwar Appa Institute of MBA, Gulbarga	1998
Sharnbasveshwar Institute of MBA (VTU) Gulbarga	2007
Sharnbasveshwar Institute of MBA (For Women) Gulbarga	2011
Sharnbasveshwar Institute of MBA, Bidar	2011
Sharnbasveshwar Poly Institute of MBA, Shorapur	2011
Sharnbasveshwar Research Institute, Gulbarga	2012
Sharnbasveshwar Institute of Mysore University, Mysore	
Sharnbasveshwar Science College, Gulbarga	1956
Sharnbasveshwar Institute studies in Computer Science	2012
Sharnbasveshwar College of Science, Gulbarga	
Sharnbasveshwar Institute studies in Master of Tourism	2007
Sharnbasveshwar 5 year Integrated Course (MTA)	
Sharnbasveshwar Institute Studies in Master of Arts in	
Sharnbasveshwar Mass Communication, Godduti, Gulb.	2009
Sharnbasveshwar Institute Studies in Master of Fine Arts,	
Sharnbasveshwar Arts College, Gulbarga	1957
Sharnbasveshwar Residential Public School,	
Sharnbasveshwar D.C.S.C. Symbiosis, Gulbarga	1967
Sharnbasveshwar Public School Residential Independent	2011
Sharnbasveshwar Science College, Shorapur	
Sharnbasveshwar Public School's Residential Independent	2011
Sharnbasveshwar Science College, Bidar	2011
Sharnbasveshwar Antharvani Community Radio, (FM) Gulb.	2009
Sharnbasveshwar Girl's Higher Primary School, Gulbarga	1934
Sharnbasveshwar Girl's High School, Gulbarga	1960
Sharnbasveshwar Composite P.U. College, Gulbarga	1949
Sharnbasveshwar Ind. P.U. College of Science, Gulbarga	1956
Sharnbasveshwar College of Commerce, Gulbarga	1961
Sharnbasveshwar Graduate Diploma in Business Management	
Sharnbasveshwar College of Arts & Science, Basavakalyan	1967
Sharnbasveshwar Printing & Publication, Gulbarga	1969
Sharnbasveshwar Appa P.U. College for Women, Gulbarga	1971
Sharnbasveshwar Appa Arts & Commerce	1973
Sharnbasveshwar for Women, Gulbarga	
Sharnbasveshwar Granthavishwa Vidya Nilaya, Gulbarga	1978
Sharnbasveshwar College of BBM, Gulbarga	1996
Sharnbasveshwar Appa Residential P.U. Science College, Gulbarga	1999
Sharnbasveshwar Residential ind. P.U. Science College	1999
Sharnbasveshwar Gulbarga	
Sharnbasveshwar Appa BCA College for Women, Gulbarga	2001
Sharnbasveshwar Residential BCA College for Women, Gulbarga	2001
Sharnbasveshwar Appa BCA College, Basavakalyan	2001
Sharnbasveshwar BCA College, Gulbarga	2001
Sharnbasveshwar Residential BBM College, Gulbarga	2004
Sharnbasveshwar BBM College, Basavakalyan	2004
Sharnbasveshwar College of Education (B.Ed), Gulbarga	2004
Sharnbasveshwar B.Ed. (E.M.), Gulbarga	2004
Sharnbasveshwar D.Ed. College for Women, Gulbarga	2004
Sharnbasveshwar Resid. P.U. College for Girls, Basavakalyan	2006
Sharnbasveshwar Residential Public School, Basavakalyan	2006
Sharnbasveshwar D.Ed. College, Basavakalyan	2004
Sharnbasveshwar Appa B.Ed. College, Basavakalyan	2004
Sharnbasveshwar Public Library, Gulbarga	1918

(Affiliated to Gulbarga University, Kalaburagi and Recognised by the Government of Karnataka)
☎ : (08472) 221941, • Fax : 08472-241492,
email: sbcscg@rediffmail.com, www.sharnscience.org

Ref.No .

Date :

To,
The Hon'ble President,
Sharanbasaveshwar Vidya Vardhak Sangha,
Kalaburagi-3

Sub: Request regarding the permission for continuation of Carrier Oriented Course [i.e. Chemical Analysis & Computer Hardware & Networking].

Letter Reference's: UGC Letter No. F.No-4-347/2011[COC] Dated:12.01.2012
GUG Approval Letter No. GUG/VMV/BOS/2011-12/1364[HNW] Dated: 30.09.2011
GUG Approval Letter No. GUG/VMV/BOS/2012-13/01[CA] Dated: 01.04.2013

His Holiness.

With the above cited subject, the five year Carrier Oriented Course sanctioned from UGC, New Delhi, in the Academic year 2011-12. this year the term of this course has been completed, but we are interested to continue the above said course's for the purpose of NAAC Accreditation to be held in our college next year. So I request you to kindly grant the permission for the continuation.

Thanking You.

"SANCTIONED"

Yours faithfully

HON'BLE PRESIDENT

PRINCIPAL

10/10/2017
PRINCIPAL
SHARNBASAVESHWAR COLLEGE
OF SCIENCE GULBARGA

SHARNBASAVESHWAR COLLEGE
OF SCIENCE GULBARGA
KARNATAKA

Certificate Course in Chemical Analysis Of Water

One year course (Approved by GUG)

I Teaching

Theory: 4 hours per week (Paper- I & Paper- II).

Practical: 3 hours per week (Practical- I) in first term.

Similarly 3 hours per week (Practical- II) in Second term.

The above work has to be completed within the academic year.

II Examination

Theory Paper- I and Paper- II of 3 hours duration each for 80 marks, internal assessment for 20 marks (conduct two tests and take average).

Practical- I and Practical- II of 3 hours for 50 marks each. (40 marks each for final examination and 10 marks each for internal assessment).

Question paper pattern

Theory: Question paper contains three sections.

Section A: There shall be Fifteen bits of one mark each; candidate has to answer all ($1 \times 15 = 15$).

Section B: There shall be seven questions of 5 marks each; candidate has to answer any Five. Total marks will be 25 ($5 \times 5 = 25$).

Section C: There shall be six questions of 10 marks each; candidate has to answer any Four. Total marks will be 40 ($4 \times 10 = 40$).

Practical: Distribution of practical marks

Experiment	Journal	Viva-voce	Internal assessment	Total marks
Practical-I (30 marks)	05	05	10	50marks
Practical- II (30 marks)	05	05	10	50marks

Paper-I
General Chemical Analysis (64 hours)

1. **SI units:**
Basic units, derived units, inter conversion of units 2 hours
2. **Stoichiometry:**
Mole concept, Avogadro number. Atomic weight, equivalent weight of elements, acids, bases, oxidizing agents and reducing agents. Molecular weight. Concept of Normality, molality and molarity. Volumetric techniques and Gravimetric techniques in brief. 10hours
3. **Analytical chemistry:**
Role of Analytical chemistry, types of analysis, classification of analytical methods, selecting an analytical method, factor affecting the analytical method, cleanliness and neatness in the analytical laboratory, laboratory note book and its importance, safety in the laboratory. 10hours
4. **Laboratory Operations And Practices-**
Filtration, drying, measuring volume, stoichiometry and graphs, concentration, percentage solute, activity, titration of a solution, parts per thousand (ppt) and parts per million (ppm), standards, chemical standards, sample preparation, drying samples, weighing, dissolving, decomposition of organic matter, ionization, precipitation.

Analytical balances (electronic, mechanical, semi micro, micro), errors in weighing, cleaning glass apparatus, preparations before calibration operation, calibration of glassware. 16 hours
5. **Sampling:**
Sampling techniques, sampling statistics, variability in the sample, sample stability, field sampling. Sample preparation, sample decomposition and dissolution-decomposing samples with inorganic acids, microwave decomposing, decomposing organic samples, decomposing inorganic materials with fluxes, selecting and handling reagents. 10hours
6. **Errors and evaluation:**
Central value, mean, arithmetic mean, median, precision, standard deviation, accuracy, types of errors, minimizing errors, significant figures and computations, reporting of analytical data, evaluation of data, uses of statistics. 08hours

7. Computers in water analysis:

Use of computers in the water analysis, handling analytical results, instrument control and signal processing, computer data bases for analytical information, laboratory information management, laboratory computer systems.

08hours

Books Recommended:

1. Analytical Chemistry –Dr Alka L Guptha, Pragathi Prakashan, Meerut.
2. The Chemical Analysis of Water: General Principles and Techniques– DTE Hunt, Anthony Leslie Wilson
3. Fundamentals of Analytical Chemistry–D A Skoog, DM West, Holler and Crouch, Saunders publishing, Newyork.
4. Qualitative Analysis– RA Day and AL Underwood,Prentice Hall, Inc, New Delhi.
5. Instrumental methods of Chemical Analysis–Chatwal and Anand, Himalaya Publications.
6. Modern Analytical Chemistry–Harvey, Harcourt Publishers.
7. Vogel's text book of Quantitative Chemical Analysis– J Mendham, RC Denney, Indian reprint Pearson Education Pvt, Ltd., New Delhi.
8. Instrumental methods and Chemical Analysis—H Kaur, Pragathi Prakashan, Meerut.
9. Text book of Quantitative Chemical Analysis—A I Vogel (ELBS)
10. Text book of Organic Chemistry—Bahl and Arun Bahl

Paper-II

Water Analysis (64 hours)

1. **Water as a component of environment:**
Sources of water- atmospheric water, surface water, stored water, ground water, human use of water. 2hours
2. **Water pollution:**
Water pollutants, classification of water pollutants with explanation, origin of water pollutants, sources of water pollutants-Natural, domestic sewage, agricultural wastes, industrial wastes, radioactive wastes.
Effect of water pollutants-physicochemical effects, biological effects, toxic effects, pathogenic effects. Types of water pollution-physical pollution, inorganic pollution, organic pollution, biological pollution, oil pollution, pesticide pollution, radioactive pollution. 10hours
3. **Water quality standards:**
Water quality standards related to public health, environment and agriculture-Drinking water standards, bacteriological standards, irrigation standards- salinity, water infiltration rate, specific ion toxicity, miscellaneous, sodium concentration, stream standards, effluent standards. Chemical and biological parameters for evaluation of aquatic environment. 12hours
4. **Collection of Water samples:**
Ruttner water sampler, Von Dorn water sampler, Thermos-flask water sampler, pump samplers. Collection of water samples for irrigation, Handling and preservation of water samples, collection of biological matter of water. 06hours
5. **Physical analysis of water:**
colour-platinum-cobalt method, Forel-Ule colour method, Movement, Temperature- measurement of surface temperature, measurement of sub-surface temperature, Odour and taste, Transparency, Turbidity. 06hours
6. **Chemical analysis of water:**
 P^H , conductivity, measurement of Electrical conductivity(soluble salts concentration), acidity, alkalinity, total dissolved salts, total solids, dissolved oxygen(oxygen meter method, Winkler's method), calcium by Versenate method (temporary hardness), calcium plus magnesium (total hardness), sodium and potassium, chloride, fluorides, sulphate, boron, free carbon dioxide, total carbon dioxide, hydrogen sulphide, silica, phosphates, total carbohydrate, dissolved carbohydrate, oil and grease. Biochemical Oxygen demand (BOD), Chemical Oxygen demand (COD). 12 hours

7. **Analysis of Different Forms Of Nitrogen:**

Ammonia, nitrite, nitrate, total organic nitrogen (TON), dissolved organic nitrogen (DON), particulate organic nitrogen (PON) present in water samples. 06hours

8. **Instrumental Analysis of water:** Applications of the following instruments in the physico-chemical analysis of water-Uv solution spectro photometry and colorimetry, Flame emission spectrometry, Atomic-Absorption Spectrometry (AAS), Mass spectrometry, Infrared spectrometry, High performance liquid chromatography, P^H-meter and turbidometry. 10hours

Books Recommended:

1. Methods in Environmental Analysis Water soil and air—PK Gupta
2. Water pollution—VP Kudesia, Pragathi Prakashan, Meerut.
3. Analytical Chemistry —Dr Alka L Guptha, Pragathi Prakashan, Meerut.
4. The Chemical Analysis of Water: General Principles and Techniques—DTE Hunt, Anthony Leslie Wilson.
5. Analytical Chemistry Vol I, II and III—Subhash and Sathish, Pragathi Prakashan, Meerut.
6. Instrumental methods of Chemical Analysis— Gurudeep R Chatwal and Anand, Himalaya Publications.
7. Chromatography —BK Sharma, GOEL Publications.
8. Basic concepts of Analytical Chemistry—SM Khopakr, New Age International Publications.
9. Standrd methods of Chemical analysis—FJ Welchar, Vol. I and II.
10. Electroanalytical Chemistry—BH Voigics, John Wiley Publications.

Practical-I

- I.
 1. Introduction to the laboratory glass wares used in chemical analysis.
 2. Giving knowledge about laboratory note book and its importance, safety in the analytical laboratory, laboratory operations and practices.
 3. Calibration of Burette, pipette, volumetric flask and fractional weights.
 4. Use of balances: rough, chemical and electronic balances.

- II. Volumetric Analysis:
 1. Determination of total hardness (Ca & Mg) present in the water
 2. Estimation of alkalinity due to Sodium carbonate and bicarbonate in the given water sample.
 3. Determination of Acidity of a given water sample.
 4. Determination of dissolved oxygen in the given water sample.
 5. Estimation of Chemical Oxygen Demand
 6. Estimation of amount of chloride present in the given water sample by using Mohr's method.

- III Gravimetric Analysis:
 1. Estimation of Mg as its axinate present in 250ml of given sample of water.
 2. Estimation of sulphate present in 250ml given solution using barium chloride.
 3. Estimation of Ca as calcium oxalate present in 250ml of given sample of water.

Practical-II

- I. Identification of following ions present in the water sample by chemical tests.
Acid radicals— Carbonate, bicarbonate, chloride, fluoride, sulphate, nitrate
Basic radicals—copper, lead, cadmium, iron, zinc, calcium, magnesium, sodium and potassium

II. Instrumentation Exercises:

II. Instrumentation Exercises:

1. Estimation of Cu^{+2} present in the given solution colorimetrically.
2. Estimation of CO_3^{2-} and HCO_3^- present in the given solution by pH meter.
3. Determination of pH of acetate buffer by potentiometrically.
4. Determination of Ferrous ammonium sulphate using standard $\text{K}_2\text{Cr}_2\text{O}_7$, potentiometrically

Books Recommended:

1. Advanced Practical Inorganic chemistry—Gurudeep Raj (Goel publications)
2. Advanced practical Physical Chemistry—JB Yadav
3. Instrumental methods of Chemical Analysis—Gurudeep Chatwal and Anand (Himalaya publications)
4. Industrial Chemistry—BK Sharma (Goel publications)
5. Practical Chemistry—OP Pandey, DN Bajpai (S Chand publications)
6. A Text book of Quantitative chemical analysis—AI Vogel
7. A Text book of Qualitative chemical analysis—AI Vogel
8. Analytical Chemistry—Dr Alka L Gupta, Pragathi Prakashan, Meerut.
9. The Chemical Analysis of Water: General Principles and Techniques—DTE Hunt, Anthony Leslie Wilson
10. College practical chemistry—Patel, Jakali, Mohandas, Israney, Turakhia (Himalaya Publishing House)

Sharnbasveshwar College of Science, Gulbarga

UGC Sponsored and Gulbarga University Gulbarga Approved COC course
In Chemical Analysis 2018-19

List of Teaching Faculty

Sl no	Name of the teacher and Institution
1	Dr. Smt Swaruprani H Department of Chemistry Sharnbasveshwar College of Science, Kalaburagi
2	Dr. R K Shikkargol HOD Department of Chemistry Sharnbasveshwar College of Science, Kalaburagi
3	Smt Gouramma Patil Lecturer in Chemistry Sharnbasveshwar College of Science, Kalaburagi
4	Ms Chaitra Lecturer in Chemistry Sharnbasveshwar College of Science, Kalaburagi
5	Mr Channabasava patil Lecturer in Chemistry Sharnbasveshwar College of Science, Kalaburagi



Coordinator



Principal

PRINCIPAL
SHARNBASVESHWAR COLLEGE
OF SCIENCE, GULBARGA

CO-ORDINATOR
UGC, Carrier Oriented Course (Chemical Analysis),
Sharnbasveshwar College of Science,
GULBARGA-3.

SHARNBASVESHVAR COLLEGE OF SCIENCE, KALABURAGI**(UGC sponsored and approved by Gulbarga University Gulbarga)****Selection list of BSc SEM students 2018-19 applied for UGC sponsored COP certificated
Course – Chemical Analysis**

Sl. No.	College Roll No.	Reg. No.	Name of the Student	Father's Name
01.	01	1749235	ABHISHEK B JADHAV	BABURAO JADHAV
02.	13	1749250	CHAITANYA	VAIJINATH
03.	14	1749251	CHANDRASHEKHAR N M	NINGAPPA MANGODI
04.	16	1749498	DEEPIKA	ANNARAO
05.	24	1749257	KAVERI	SANGANAGOUDA
06.	41	1749277	PAVITRA	VIRENDRA
07.	61	1749301	RENUKA	REVANSIDDAPPA
08.	76	1749315	SHREYA	SOMNATH
09.	78	1749317	SHRUTI	MADIVALAPPA K
10.	80	1749321	SHWETA OTAGI	GHALEPPA OTAGI
11.	85	1749334	SOUMYA	MAHARUDRAPA
12.	86	1749335	SOUMYA ROOGI	SHANTAPPA
13.	87	1749336	SOUMYA S GHALLI	SIDRAMAPPA GHALLI
14.	91	1749337	SWATI	JAGADISH
15.	95	1749344	VEENA D	BAAVARAJ
16.	100	1749347	VISHWANATH	SHIVASHARANAPPA
17.	101	1749348	YASMIN RUBY PATWARI	JALALUDIN
18.	211	1749211	ANJANA	BASALINGAPPA MYALI
19.	212	1749443	ANJANADEVI	IRANNA
20.	213	1749439	ANUSHA	ABHAYRAO KULKARNI
21.	216	1749532	BAAMMA	ANJAYYA GUTTEDAR
22.	218	1749449	BHUVANESHWARI	BASALINGAPPA
23.	221	1749454	GIRISH	LAXMIKANT
24.	222	1749523	GUNDAMMA	BABU
25.	224	1749456	KAVYA	BALRAJ
26.	228	1749462	MANJUNATH YANGUNTI	GURULINGAPPA
27.	232	1749466	NIKHIL	ASHOK BHOJI
28.	233	1749468	OMKAR	BASAVARAJ
29.	236	1749470	PRIYANKA	SHANKAR
30.	240	1749473	SNGEETA	SHIVAKUMAR UPPE
31.	244	1752818	SHRIPAD BHATT	RAMESH BHATT
32.	245	1749484	SHRISHAIL	RAMALINGA
33.	247	1749482	SHWETA	SIDDAYYA
34.	248	1749480	SHWETA	PITAMBAR RAO
35.	249	1749481	SHWETA B P	BHEEMARAYA G PATIL
36.	251	1749490	SONY	UDAYKUMAR

37.	252	1753064	SPANDANA	CHANDRASHEKHAR REDDY
38.	254	1749487	SUDHARANI	MAHIPAL REDDY
39.	255	1749489	SUMEDHA SUJYAT	SURYAKANT
40.	256	1749488	SUSHMITA	ASHOK KUMAR H
41.	258	1749493	VAISHNAVI	ASHOK KULKARNI
42.	259	1749496	VEERESH R B	RAVINDRA BIDARI
43.	260	1749497	VIDYASHREE	SHARANABASAPPA
44.	261	1749522	VIDTASHREE D PATIL	DAULATRAYA PATIL
45.	262	1749524	VIJAYALAKSHMI	RAMANNA



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GULBARGA-3.

SHARNBASVESHWAR COLLEGE OF SCIENCE, GULBARGA
 UGC Sponsored and Approved by Gulbarga University Gulbarga COP certificate course : Chemical Analysis Annual examination Marks List 2018 - 19

COLLEGE CODE: C312 Class: BSc V and VI Sem FOR ACADEMIC YEAR 2018-19 Course: Chemical Analysis

Max. Marks - Theory: 100 marks And Practical: 50 marks

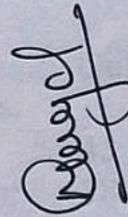
Sl No	Roll No	Reg. No	Candidates Name	Father Name	Threory Paper-										Grand Total		
					General Chemical Analysis			Water Analysis			Practical-I			Practical-II			
					Theory for 80M	IA for 20M	Total 100	Theory for 80M	IA for 20M	Total 100	Expt for 40M	IA for 10M	Total	Expt for 40M		IA(10)	Total
1	13	1749250	CHAITANYA	VAIJINATH	78	18	96	75	19	94	38	10	48	38	10	48	286
2	14	1749251	CHANDRASHEKHAR N M	NINGAPPA MANGODI	75	19	94	76	19	95	39	10	49	38	10	48	286
3	16	1749498	DEEPIKA	ANNARAO	76	18	94	78	19	97	39	10	49	39	10	49	289
4	41	1749277	PAVITRA	VIRENDRA	77	19	96	78	18	96	38	10	48	36	10	46	286
5	61	1749301	RENUKA	REVANSIDDAPPA	78	19	97	76	18	94	37	10	47	36	10	46	284
6	76	1749315	SHREYA	SOMNATH	78	18	96	78	19	97	39	10	49	39	10	49	291
7	78	1749317	SHRUTI	MADIVALAPPA K	76	19	95	75	19	94	38	10	48	38	10	48	285
8	80	1749321	SHWETA OTAGI	GHALEPPA OTAGI	78	19	97	76	18	94	39	10	49	39	10	49	289
9	85	1749334	SOUMYA	MAHARUDRAPPA	78	18	96	77	19	96	38	10	48	38	10	48	288
10	86	1749335	SOUMYA ROOGI	SHANTAPPA	78	19	97	76	18	94	38	10	48	38	10	48	287
11	91	1749337	SWATI	JAGADISH	76	19	95	75	17	92	38	10	48	37	10	47	282
12	95	1749344	VEENA D	BASVARAJ	78	19	97	78	19	97	39	10	49	38	10	48	291
13	101	1749348	YASMIN RUBY PATWARI	JALALUDDIN	78	19	97	76	19	95	39	10	49	39	10	49	290
14	211	1749442	ANJANA	BASALINGAPPA MYALOG	76	18	94	78	19	97	37	10	47	38	10	48	286
15	212	1749443	ANJANADEVI	IRANNA	78	19	97	78	19	97	39	10	49	39	10	49	292
16	213	1749439	ANUSHA	ABHAYRAO KULKARNI	78	19	97	78	19	97	38	10	48	37	10	47	289
17	216	1749532	BASAMMA	ANJAYYA GUTTEDAR	77	19	96	76	19	95	38	10	48	36	10	46	285
18	218	1749449	BHUVANESHWARI	BASALINGAPPA	78	19	97	78	18	96	38	10	48	38	10	48	289
19	221	1749454	GIRISH	LAXMIKANT	78	18	96	78	19	97	39	10	49	39	10	49	291
20	222	1749523	GUNDAMMA	BABU	78	19	97	78	19	97	38	10	48	38	10	48	290

21	1749456	KAVYA	BALRAJ	77	18	95	76	19	95	38	10	48	38	10	48	286
22	1749462	MANJUNATH YANGUNTI	GURULINGAPPA	76	19	95	78	18	96	38	10	48	38	10	48	AB
23	1749468	OMKAR	BASAVARAJ	78	19	97	78	19	97	39	10	48	38	10	48	291
24	1749470	PRIYANKA	SHANKAR	76	19	95	76	18	94	38	10	48	37	10	47	284
25	1749473	SANGEETA	SHIVAKUMAR UPPE	78	19	97	78	19	97	39	10	49	39	10	49	292
26	1752818	SHRIPAD BHATT	RAMESH BHATT	78	18	96	78	19	97	38	10	48	38	10	48	289
27	1749482	SHWETA	SIDDAYYA	76	18	94	76	19	95	38	10	48	38	10	48	285
28	1749480	SHWETA	PITAMBAR RAO	77	19	96	77	18	95	38	10	48	38	10	48	287
29	1749481	SHWETA B P	BHEEMARAYA D PATIL	78	18	96	78	19	97	38	10	48	38	10	48	289
30	1749490	SONY	UDAYKUMAR	78	18	96	78	19	97	38	10	48	38	10	48	289
31	1753064	SPANDANA	CHANDRASHEKHAR REDDI	77	19	96	78	18	96	38	10	48	38	10	48	288
32	1749487	SUDHARANI	MAHIPAL REDDY	78	19	97	76	18	94	38	10	48	38	10	48	287
33	1749488	SUSHMITA	ASHOK KUMAR H	78	18	96	78	19	97	38	10	48	38	10	48	289
34	1749493	VAISHNAVI	ASHOK KULKARNI	78	19	97	79	18	97	39	10	49	39	10	49	292
35	1749496	VEERESH R B	RAVINDRA BIDARI	78	18	96	78	19	97	39	10	49	39	10	49	291
36	1749497	VIDYASHREE	SHARANABASAPPA	76	19	95	78	18	96	38	10	48	38	10	48	287
37	1749522	VIDYASHREE D PATIL	DAULATRAYA PATIL	78	19	97	79	18	97	39	10	49	39	10	49	292
38	1749524	VIJAYALAKSHMI	RAMANNA	78	19	97	79	19	98	39	10	49	39	10	49	293



Co-ordinator

Co-ordinator
GC, Carrier Oriented Course (Chemical Analysis)
Sharnbasveshwar College of Science
GULBARGA-3.



HOD
Head

Department of Chemistry
Sharnbasveshwar College of Science
KALABURAGI



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SHARNBASVESHWAR COLLEGE
OF SCIENCE, GULBARGA

Sharnbasveshwar College of Science, Gulbarga

Result of UGC Sponsored (Gulbarga University Gulbarga Approved) COC course
In **Chemical Analysis**, examination held in April-2019 is hereby declared.

The candidates with following Register Number are passed with distinction.

College: C312 Sharnbasveshwar College of Science, Gulbarga

1749250	1749251	1749498	1749277	1749301	1749315	1749317	1749321
1749334	1749335	1749337	1749344	1749348	1749442	1749443	1749439
1749532	1749449	1749454	1749523	1749456	1749462	1749468	1749470
1749473	1752818	1749482	1749480	1749481	1749490	1753064	1749487
1749488	1749493	1749496	1749497	1749522	1749524		

Result Analysis

College: C312 Sharnbasveshwar College of Science, Gulbarga
Department: Chemistry
Course: UGC Sponsored (Gulbarga University Gulbarga Approved)
COC course in **Chemical Analysis**.

Number of candidates registered for the course: 45
Number of candidates appeared for the examination: 38
Number of candidates passed the examination: 38
Percentage of passing: 100%



Coordinator

Co-ordinator
COC, Carrier Oriented Course (Chemical Analysis)
Sharnbasveshwar College of Science
GULBARGA-3.



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