

To,

The Principal

Sharanabasaveshwar College of Science

Kalaburagi - 3

Sub: Submission of COC "**Chemical Analysis**" details for the academic year 2017-18

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 2017-18. Kindly acknowledge the receipt of the same.

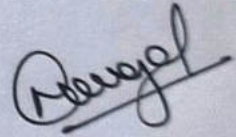
Thanking you



Coordinator

Co-ordinator

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



HOD
Head

Department of Chemistry
Sharnbasveshwar College of Science
KALABURAGI

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

Sharnbasveshwar College of science,

Kalaburagi – 585103,

Karnataka

(Affiliated to Gulbarga University, Gulbarga)

Progress Report

On

Career Oriented course – “Chemical Analysis”

For the academic year 2017 -18 sanctioned by

University Grant Commission

New Delhi - 110002



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.

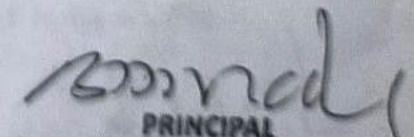
Sir,

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
OF SCIENCE, GULBARGA


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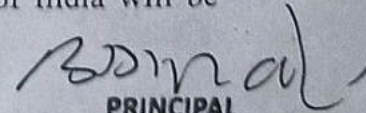
The assistance available in the programme is only in the form of a one – time as “Seed Money”. The amount may be utilized for the purchase of books and journals augmentation of laboratory facilities, equipment and payment of remuneration to the Guest faculty only.

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

1. The sanctioned amount is debitable 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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SHARNBASVESHWAR COLLEGE
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

Sharanabasaveshwar
PRINCIPAL
SHARNBASVESHWAR COLLEGE
OF SCIENCE, GULBARGA

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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/ಬಿಟವಿಸ್/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

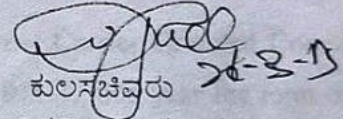
ನಿರ್ಣಯ (1) ದಿನಾಂಕ: 28.09.2012

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

ಗುಲಬರ್ಗಾ ವಿಶ್ವವಿದ್ಯಾಲಯ, ಗುಲಬರ್ಗಾ

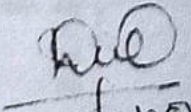
ಗೆ,

- 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 ಪ್ರೊ.ಪಾಲರೂ ಶಿವಬಸವೇಸ್ವರ ಅಶ್ವಿನ ಮೂವಿನ್ಯಾಲಯ, ಗುಲಬರ್ಗಾ
(Sd/-) (Signature)
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 Gulbarga	2011
Sharnbasveshwar Institute of Engineering & Digital Electronics Gulbarga	2010
Sharnbasveshwar Nisya Engineering College, Shorapur	2011
Sharnbasveshwar Appa Engineering College, Bidar	1999
Sharnbasveshwar Appa Institute for MCA, Gulbarga	1998
Sharnbasveshwar Appa Institute of MBA, Gulbarga	2007
Sharnbasveshwar Institute of MSA (VTU) Gulbarga	2011
Sharnbasveshwar Institute of MSA (For Women) Gulbarga	2011
Sharnbasveshwar Institute of MBA, Bidar	2011
Sharnbasveshwar Nisya Institute of MBA, Shorapur	2011
Sharnbasveshwar Research Institute, Gulbarga	2012
Sharnbasveshwar Institute of Mysore University, Mysore	1956
Sharnbasveshwar Science College, Gulbarga	2012
Sharnbasveshwar Graduate studies in Computer Science Gulbarga	2007
Sharnbasveshwar College of Science, Gulbarga	2007
Sharnbasveshwar Graduate studies in Master of Tourism Gulbarga	2009
Sharnbasveshwar 5 year Integrated Course (MTA) Gulbarga	2009
Sharnbasveshwar Graduate Studies in Master of Arts in Journalism & Mass Communication, Godduti College, Gulbarga	1957
Sharnbasveshwar Graduate Studies in Master of Fine Arts, Gulbarga	1967
Sharnbasveshwar Arts College, Gulbarga	2011
Sharnbasveshwar Residential Public School, Gulbarga	2011
Sharnbasveshwar State & CESC Syllabus, Gulbarga	2011
Sharnbasveshwar Public School Residential Independent Gulbarga	2011
Sharnbasveshwar Science College, Shorapur	2011
Sharnbasveshwar Public School's Residential Independent Gulbarga	2011
Sharnbasveshwar Science College, Bidar	2011
Sharnbasveshwar Antiharsani Community Radio, (FM) Gulbarga	2009
Sharnbasveshwar Girls Higher Primary School, Gulbarga	1934
Sharnbasveshwar Girls High School, Gulbarga	1960
Sharnbasveshwar Composite P.U. College, Gulbarga	1949
Sharnbasveshwar int. P.U. College of Science, Gulbarga	1956
Sharnbasveshwar College of Commerce, Gulbarga	1961
Sharnbasveshwar Post-Graduate Diploma in Business Management Gulbarga	1967
Sharnbasveshwar College of Arts & Science, Basavakalyan	1969
Sharnbasveshwar Printing & Publication, Gulbarga	1971
Sharnbasveshwar Doodappa Appa P.U. College for Women, Gulbarga	1973
Sharnbasveshwar Doodappa Appa Arts & Commerce Gulbarga	1978
Sharnbasveshwar Appa Institute of Women, Gulbarga	1978
Sharnbasveshwar Granthavishwa Vidya Nilaya, Gulbarga	1978
Sharnbasveshwar College of BBM, Gulbarga	1996
Sharnbasveshwar Appa Residential P.U. Science College, Gulbarga	1999
Sharnbasveshwar Doodappa Residential int. P.U. Science College Gulbarga	1999
Sharnbasveshwar Doodappa 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 D.Ed. College for Women, Gulbarga	2004
Sharnbasveshwar 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

S.A. Appa
HON'BLE PRESIDENT

Alamy
PRINCIPAL

PRINCIPAL
SHARNBASAVESHWAR COLLEGE
OF SCIENCE, GULBARGA

Kals
10/10/2017
PRINCIPAL
SHARNBASAVESHWAR COLLEGE
OF SCIENCE GULBARGA

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^{-1} present in the given solution by P^{H} meter.
3. Determination of P^{H} 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 2017-18

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 Department of Chemistry Sharnbasveshwar College of Science, Kalaburagi
3	Smt Gouramma Patil Lecturer in Chemistry Sharnbasveshwar College of Science, Kalaburagi
4	Mr Siddaram Patil Lecturer in Chemistry Sharnbasveshwar College of Science, Kalaburagi

Coordinator

Principal

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OF SCIENCE, GULBARGA

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

SHARNBASVESHWAR COLLEGE OF SCIENCE, KALABURAGI**(UGC sponsored and approved by Gulbarga University Gulbarga)****Selection list of BSc SEM students 2017-18 applied for UGC sponsored COP
certificated Course – Chemical Analysis**

Sl no.	Roll no.	Reg. o.	Name of the student	Father name
1	4	1645210	AMRUTA HALVI	SHARNBASAPPA
2	8	1645215	ARCHANA	BHAGAVAN HIBARE
3	9	1645216	ARPITA	RAGHUNATH
4	10	1645217	ASHARANI	GOURISHANKAR
5	11	1645218	ASHWINI	ASHOK
6	28	1645231	CHAITRA	NAGENDRA
7	31	1645637	DIVYALAXMI	UDAYKUMAR PATIL
8	42	1645239	PARVATI	BANDAPPA
9	48	1645246	P SUREKHA	P RAMAKRISHNA
10	49	1645295	PRAGNYA	MALAPPA
11	68	1645264	SHREEDHAR	CHANNAPPA SANKH
12	76	1645273	SOUMYA DAWANKAR	SHARANABASAPPA
13	77	1645299	SNTOSHI	NAGAPPA
14	81	1645304	SUPRIYA	BASAVARAJ
15	85	1645277	USHA	SUGANNA GOGI
16	88	1645280	VIJAYLAXMI	KALYANAPPA
17	91	1645307	VIJAYLAXMI	LOKESH RATHOD
18	149	1645375	ASHWINI	VEERSHETTY
19	152	1645413	AISHWARYA	SHIVASHARANAPPA
20	160	1645381	HARSHA	VAIJINATH
21	167	1645387	MAHESH	VILAS TANWADE
22	173	1645391	PARVATI	SHARANABASAPPA
23	172	1645420	NIRGUN PATIL	SHARANABASAPPA
24	179	1645396	ROHIT	SURESH PATIL
25	180	1645397	ROHINI	SANGAMESH
26	181	1645424	RENUKA	VIJAYKUMAR

27	182	1645398	SHARANESH	RACHAYYA
28	183	1645399	SANJANA	RAJASHEKHAR
29	184	1645400	SAVITA	PARVATREDDY
30	188	1645404	SUSHMA	SHIVARAJ
31	195	1645430	SIDDALINGAPPA	SURYAKANT
32	201	1645434	TRIVENI	SHANTREDDY
33	202	1645438	TARANNUM SALMA	MOHAMMAD ISHAQUE
34	203	1645407	UJJWALA	BASAVARAJ
35	206	1645436	VASANT	LADAPPA POOJARI



COORDINATOR

Co-ordinator
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OF SCIENCE, GULBARGA

SHARNBASVESHWAR COLLEGE OF SCIENCE, GULBARGA
 UGC Sponsored and Approved by Gulbarga University Gulbarga COP certificate course : Chemical Analysis Annual examination Marks List 2017 - 18

COLLEGE CODE: C312		Class: BSc V and VI Sem		FOR ACADEMIC YEAR 2017-18		Course: Chemical Analysis											
Max. Marks - Theory: 100 marks		And Practical: 50 marks		Theory Paper-I			Theory Paper-II			Practical-I			Practical-II			Grand Total	
Sl No	Roll No	Reg. No	Candidates Name	Father Name	General Chemical Analysis	Water Analysis	Thery Paper-I	Thery Paper-II	For 50 M	For 50 M	For 50 M	For 50 M	For 50 M	For 50 M	Total		
					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	4	1645210	AMRUTA HALVI	SHARNBASAPPA	60	19	79	62	18	80	39	10	49	39	10	49	257
2	8	1645215	ARCHANA	BHAGAVAN/HIBARE	67	17	84	66	19	85	38	10	48	36	10	46	263
3	9	1645216	ARPITA	RAGHUNATH	75	18	93	62	19	81	37	10	47	36	10	46	267
4	10	1645217	ASHARANI	GOURISHANKAR	70	18	88	70	19	89	36	10	46	37	10	47	270
5	11	1645218	ASHWINI	ASHOK	60	17	77	63	18	81	37	10	47	36	10	46	251
6	28	1645231	CHAITRA	NAGENDRA	62	19	81	64	18	82	38	10	48	37	10	47	258
7	31	1645637	DIVYALAXMI	UDAYKUMAR PATIL	75	18	93	77	19	96	40	10	50	39	10	49	288
8	42	1645239	PARVATI	BANDAPPA	64	18	82	57	17	74	38	10	48	37	10	47	251
9	48	1645246	P SULEKHA	P RAMAKRISHNA	73	18	91	66	19	85	38	10	48	37	10	47	271
10	49	1645295	PRAGNYA	MALAPPA	60	18	78	54	19	73	39	10	49	36	10	46	246
11	68	1645264	SHREEDHAR	CHANNAPPA SANKH	68	17	85	61	19	80	38	10	48	37	10	47	260
12	76	1645273	SOUMYA DAWANKAR	SHARNBASAPPA	70	17	87	72	18	90	37	10	47	38	10	48	272
13	77	1645299	SANTOSHI	NAGAPPA	75	18	93	70	19	89	38	10	48	37	10	47	277
14	81	1645304	SUPRIYA	BASAVARAJ	63	17	80	53	18	71	37	10	47	37	10	47	245
15	85	1645277	USHA	SUGANNA GOGI	45	19	64	52	18	70	39	10	49	39	10	49	232
16	88	1645280	VIJAYLAXMI	KALYANAPPA	71	19	90	70	18	88	38	10	48	38	10	48	274
17	91	1645307	VIJAYLAXMI	LOKESH RATHOD	50	18	68	50	19	69	38	10	48	37	10	47	232
18	149	1645375	ASHWINI	VEERSHETTY	63	17	80	61	18	79	38	10	48	37	10	47	254
19	152	1645413	AISHWARYA	SHIVASHARANAPPA	60	19	79	58	18	76	38	10	48	37	10	47	250
20	160	1645381	HARSHA	VAIJNATH	72	18	90	75	19	94	38	10	48	36	10	46	278

21	167	1645387	MAHESH	VILAS TANWADE	69	18	87	70	19	89	37	10	47	36	10	46	269
22	173	1645391	PARVATI	SHARANABASAPPA	67	17	84	63	18	81	38	10	48	39	10	49	262
23	172	1645420	NIRGUN PATIL	SHARANABASAPPA	65	18	83	65	17	82	36	10	46	38	10	48	259
24	179	1645396	ROHIT	SURESH PATIL	75	18	93	55	19	74	39	10	49	36	10	46	262
25	180	1645397	ROHINI	SANGAMESH	73	18	91	70	19	89	37	10	47	38	10	48	275
26	181	1645424	RENUKA	VIJAYKUMAR	64	18	82	57	19	76	37	10	47	36	10	46	251
27	182	1645398	SHARANESH	RACHAYYA	69	17	86	74	19	93	36	10	46	35	10	45	270
28	183	1645399	SANJANA	RAJASHEKHAR	75	18	93	71	17	88	40	10	50	39	10	49	280
29	184	1645400	SAVITA	PARVATREDDY	73	18	91	72	17	89	38	10	48	39	10	49	277
30	188	1645404	SUSHMA	SHIVARAJ	65	18	83	63	19	82	37	10	47	38	10	48	260
31	195	1645430	SIDDALINGAPPA	SURYAKANT	71	17	88	62	19	81	36	10	46	37	10	47	262
32	201	1645434	TRIVENI	SHANTREDDY	64	19	83	65	18	83	40	10	50	39	10	49	265
33	202	1645438	TARANNUM SALMA	MOHAMMAD ISHAQUE	74	18	92	70	19	89	40	10	50	39	10	49	280
34	203	1645407	UJJWALA	BASAVARAJ	77	17	94	74	18	92	40	10	50	39	10	49	285
35	206	1645436	VASANT	LADAPPA POOJARI	69	18	87	57	17	74	39	10	49	39	10	49	259



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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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-2018 is here by declared.

The candidates with following Register Number are passed with distinction.

College: C312 Sharnbasveshwar College of Science, Gulbarga

1645210	1645215	1645216	1645217	1645218	1645231	1645637	1645239
1645246	1645295	1645264	1645273	1645299	1645304	1645277	1645280
1645307	1645375	1645413	1645381	1645387	1645391	1645420	1645396
1645397	1645424	1645398	1645399	1645400	1645404	1645430	1645434
1645438	1645407	1645436					

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: 42
Number of candidates passed the examination: 42
Percentage of passing: 100%

Coordinator

Co-ordinator

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

Principal

PRINCIPAL
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OF SCIENCE, GULBARGA



ज्ञान-विज्ञान विमुक्तये

Annexure V

UNIVERSITY GRANTS COMMISSION
(CAREER ORIENTED PROGRAMME)

PROFORMA FOR SUBMISSION OF STATEMENT OF EXPENDITURE
INCURRED FOR THE INTRODUCTION OF CAREER ORIENTED COURSES

1. Name of the College/University: **Sharnbasveshwar College of Science, Gulbarga**
Name of the Career Oriented Course: **Chemical Analysis.**
2. No. & date of UGC's approval: F. No.4-347/2011(COC), dated 12.01.2012
3. Period to which the accounts related: w.e.f. 01.04.2017 to 31.03.2018 Details of actual expenditure incurred: Rs. 80,000.00 Grant approved Rs. 10,00,000.00 Grant released Rs. 9,00,000.00 Expenditure Unspent balance (i) (ii) (iii) (iv) Rs. 4,84,055.00

Seed Money:

I.) Books/Journals	: Rs. NIL
II.) Equipment	:Rs. NIL
III) Guest Faculty	:Rs. 25,000.00
IV) Remuneration of Co-ordinator	: Rs.5,000.00

Note:

- I.) The statement of expenditure should be filled up separately for each Career Oriented Courses.
- II) List of equipment purchased should be submitted.
- III) Details of periods taken, amount paid to each teacher by name under guest faculty and internal faculty should be submitted.

Coordinator

Co-ordinator

Carrier Oriented Course (Chemical Analysis)
Sharnbasveshwar College of Science,
Gulbarga
Govt. Auditor/C.A.

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SHARNBASVESHWAR COLLEGE OF SCIENCE

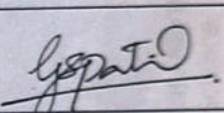

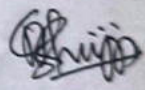


REMUNERATION PAID TO FACULTY MEMBERS FOR CAREER ORIENTED PROGRAMME DURING THE ACADEMIC YEAR 2017-18 (UGC XI-PLAN)

NAME OF THE COLLGE : SHARNBASVESHWAR COLLEGE OF SCIENCE, GULBARGA

NAME OF THE PROGRAMME : CHEMICAL ANALYSIS

GRANT SANCTION LETTER NO. : F No.4-347/2011(COC) JAN.2012

01	Dr Swaruparani H	Remuneration to Programme coordinator per year	Rs 5000.00	
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S.No.	Name of Faculty members	No. of (Theory & Practical) periods taken @ 250/- per period	Total amount actually paid to faculty member in Rs	Signature of the faculty member
01	Smt Gouramma Patil	20	5000.00	
02	Mr Sidram Patil	30	7500.00	
03	Miss Chaitra Rajendra	20	5,000.00	
04	Mr Dastgeer	20	5,000.00	
05	Mr Channabasava	10	2500.00	
	Total amount dispersed to the faculty members	100 periods	25000.00	



COURSE COORDINATOR

Co-ordinator

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



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STATEMENT SHOWING THAT THE EXPENDITURE DETAIL FOR THE CAREER ORIENTED COURSE (UGC – XI PLAN)
DURING THE ACADEMIC YEAR 2017-18

Name of the Career Oriented Programme: Chemical analysis

NAME OF THE COLLEGE : SHARNBASVESHWAR COLLEGE OF SCIENCE, GULBARGA

GRANT SANCTION LETTER NO : F. NO.4-347/2011(COC), dated 12.01.2012.

S.NO	PARTICULARS	TOTAL AMOUNT
01	Remuneration To Programme Coordinator Per Year	5,000. 00
02	Remuneration Paid To The Faculty Members @ 250 Per Period (Theory – 150 & Practical – 150)	25,000 . 00
03	Books & Reading Materials	--
04	Equipments / Chemicals	--
05	Contingency	--
	Total Expenditure in Rs	30,000 . 00



Co-ordinator
COURSE COORDINATOR
Sharnbasveshwar College of Science,
(Dr. Smt Swarupranthi) GULBARGA-3.



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OF SCIENCE, GULBARGA