

ANDHRA UNIVERSITY

Telegrams: UNIVERSITY
Telephone: 284 4000
Fax: 0891 - 2755324



All Official letters, packages
etc, should be addressed to
the Registrar by designation
and not by name

No. L I (1)/UG Courses/B.A., B.Sc./2021.

Visakhapatnam,
Dt: 15-07-2021.

From: THE REGISTRAR

To

The Principals of the
All Affiliated Colleges (U.G.),
Courses (B.A., B.Com., B.Sc., B.B.A.)

Sir/Madam,

Sub : Approval of Syllabus & Model Question Papers of B.A. (Office
Management & Secretarial Practice and B.Sc. (Analytical Chemistry)
offered by Govt. Degree College Nakkapalli, Visakhapatnam, w.e.f
2020-21- Requesting - Reg.

Ref : 1. APSCHE syllabus of Under CBCS frame work w.e.f 2020-21.
2. Letter dt. 5-7-2021 along with Syllabus & Model Question Papers,
received from the Special Officer, Govt. Degree College, Nakkapalli,
Visakhapatnam.

* * *

I am by direction to inform that the Principals of the affiliated colleges to
strictly adhere to the APSCHE guidelines for the revised Choice Based Credit
System, Approval of Syllabus & Model Question Papers of B.A. (Office
Management & Secretarial Practice and B.Sc. (Analytical Chemistry) offered by
Govt. Degree College Nakkapalli, Visakhapatnam, w.e.f 2020-21 academic year
U.G. Courses (CBCS) placed in A.U. website.

Thanking you,

Yours faithfully,

(B. RAMACHANDER)
DEPUTY REGISTRAR (ACADEMIC)

Copies to:

1. The Dean of Academic Affairs, A.U., VSP.
2. The Dean, U.G. & P.G, Professional Courses, A.U., Vsp.
3. The Dean, CDC, A.U., Vsp.
4. The Dean, Confidential, A.U., Vsp.
5. The Controller of Examinations, A.U., Vsp.
6. The Principal's, All Affiliated Colleges (U.G.)
7. The Secretary to V.C., Rector Table, P.A. to Registrar, A.U., Vsp.
8. The Director, Computer Centre, A.U., Vsp.
9. O.C. & O.O.F.

From

The Special Officer.,
Govt. Degree College,
Nakkapalli – 531081,
Visakhapatnam District.
Mobile No: 9502776586

To

The Registrar,
Andhra University,
Visakhapatnam.

Sir,

Sub: - Requisition to accept the syllabus and Model question papers of
B.A (Office Management & Secretarial Practice.,
B.Sc (Analytical Chemistry) – Reg.

I submit that Govt. Degree College, Nakkapalli is a newly established college during the academic year 2020-21 and sanctioned Five Courses but BA(OM&SP) and B.Sc(Analytical Chemistry) is not offered by any UG Colleges affiliated to Andhra University. Hence I submit the syllabus and model questions papers for the above mentioned courses for your kind consideration and necessary action.

Thanking you sir,

Yours faithfully,

Principal.

Principal
S.G.A.Govt.Degree College
YELLAMANCHILI - 531 085
Visakhapatnam District.

Enclosures.

1. Affiliation Letter issued by the CDC, Andhra University.
2. Courses Sanctioned letter by the Commissioner.
3. Syllabus copies and model papers of BA(OM & SP),
B.Sc (Analytical Chemistry).

OFFICE OF COLLEGIATE EDUCATION ANDHRA
VIJAYAWADA
Present: Sri. M.M. Nayak, I.A.S.

Rc.No.20/GDC/2019

dated:04/12/2020

Sub:- Collegiate Education – Sanction of new Government Degree College at Nakkapalli in Payakaraopet Constituency, Visakhapatnam District – Instructions – Issued

Ref:- G.O.Ms.No.36, Higher Education (CE.A1) Department, dated 27.10.2020.

#

Copy of G.O.Ms.No.36, Higher Education (CE.A1) Department, dated 27.10.2020 is herewith communicated.

Accordingly, to start the new Degree College at Nakkapalli in Payakaraopet Constituency, Visakhapatnam District from the academic year 2020-21, Dr K. Malayadri, Principal, Govt. Degree College, Yellamanchili, Visakhapatnam District is appointed as Special Officer to newly established Government Degree College, Nakkapalli, Visakhapatnam District in addition to his normal duties.

Therefore, the Special Officer is requested to initiate steps to start the new Govt. Degree College at Nakkapalli, Visakhapatnam District from the academic year 2020-21 duly following the guidelines:

(i) To start with the following courses.

S. No.	Course	Combination	Medium	Student strength
1	B.A.	Political Science, Economics, Office Management & Secretarial Practice	English	30
2	B.Com	Accountancy, Taxation	English	30
		Computer Applications	English	30
3	B.Sc.	Mathematics, Statistics, Computer Science	English	30
		Mathematics, Chemistry, Analytical Chemistry	English	30
		Zoology, Chemistry, Analytical Chemistry	English	30

(ii) Obtain affiliation for the above courses from the University concerned regarding admission process, courses to be offered.

(iii) To approach the Principal, Government Junior College, Nakkapalli and request to accommodate Govt. Degree College, Nakkapalli in the G.J.C. premises.

(iv) To approach the District Collectorate to identify the suitable land to the extent of minimum of 5.0 Acres for construction of buildings to establish new Government Degree College at Nakkapalli.

(v) To make necessary steps to run the college in a smooth manner.

Sd./-M M Nayak
Special Commissioner of Collegiate Education

To

The Principal, Government Degree College, Yellamanchili, Visakhapatnam District.

Copy to the District Collector, Visakhapatnam District.

Copy to Revenue Divisional Officer concerned.

Copy to Regional Joint Director of Collegiate Education, Rajahmundry

Copy to Principal, Identified VS Krishna Government Degree College, Visakhapatnam.

Copy to D.T.O. and S.T.O. concerned.

Copy to Services-I, CAO, Academic Cell of this office for information

Spare.1

//t.c.f.b.o.//

N. Rani
Superintendent



GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Higher Education Department - Sanction of new Government Degree College at Nakkapalli in Payakaraopet Constituency, Visakhapatnam District from the academic year 2020-21 - Administrative sanction Orders Issued.

HIGHER EDUCATION (C.E./A1) DEPARTMENT

G.O. Ms.No.36.

Dated:27/10/2020

Read the following :-

- Ref : 1.Letter from Sri Golla Babu Rao, Hon'ble M.L.A, Payakaraopet, Visakhapatnam Dist. addressed to Hon'ble Minister(Education), dt :09.12.2019.
2.From the Spl.CCE, Lr.Rc.No.71/GDC-CS/2019,dated:05.06 .2020.
3.From the Secretary, APSCHE, Lr.No.APSCHE/AC/New GDC / Payakaraopet const/2020-21, dated.05.06.2020

In the reference 1st read above, Sri. Golla Babu Rao, Hon'ble M.L.A, Payakaraopet, Visakhapatnam District has requested Hon'ble Minister of Education for sanction of new Government Degree College either at Narsipatnam Addaroad or Nakkapalli in Payakaraopet Constituency.

2. Accordingly, in the references 2nd and 3rd read above, the Special Commissioner of Collegiate Education, Andhra Pradesh, Vijayawada and the Secretary, A.P. State Council of Higher Education have sent proposals. Government after careful examination of the proposals hereby accord administrative sanction for establishment of new Government Degree College at Nakkapalli in Payakaraopet Constituency in Visakhapatnam District from the academic year 2020-21.

3. The Special Commissioner of Collegiate Education, Andhra Pradesh shall take further action to send proposals for the budget, both for construction of new college campus and for teaching and non-teaching staff for the above New Degree College. The Special Commissioner of Collegiate Education shall plan and start such degree courses that includes significant skilling component to enable youth in securing employment in addition to regular courses as per the demand.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

SATISH CHANDRA
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Special Commissioner of Collegiate Education,
Andhra Pradesh, Vijayawada.
Copy to:
The Secretary, A.P. State Council of Higher Education, Mangalagiri, Guntur Dist.
The Collector & District Magistrate, Visakhapatnam.
The Regional Joint Director of Collegiate Education, Rajamahendravaram,
E.G.Dist.
The P.S. to Addl. Secy. to C.M.
The P.S. to Minister for Education.
The P.S. to Spl. Chief Secretary to Govt, Higher Education Department.
Sc/Sf.

// FORWARDED :: BY ORDER //

1
SECTION OFFICER

ANDHRA UNIVERSITY



COLLEGE DEVELOPMENT COUNCIL

No.C-II(4)/New Govt. Degree College V.B.N. 20-21

Visakhapatnam
Dt: 05-07-2021.

From: OFFICE OF THE DEAN

To
The Principal
Government Degree College
Nakkapalli
Visakhapatnam.

Sir,

Sub: Starting of New Govt. Degree College-from the academic year 2020-21 – Orders – Issued.

Ref: 1. G.O.Ms.No.36, dated 27-10-2020 Higher Education (C.E.A1) Department- Sanctioning of New Government Degree College Nakkapalli in Payakaraopeta, Visakhapatnam Dist.

2. Proceedings of the Special Commissioner of Collegiate Education, Andhra Pradesh, Vijayawada – P.No.20/GDC/019, dated 04-12-2020.

I am by direction to inform you that, permission be granted to start New Government Degree College, Nakkapalli in Payakaraopeta, Visakhapatnam Dist., with sanctioned Courses/Combinations with take and Medium of instructions as noted against each from the academic year 2020-21 subject to fulfilment of conditions/requirements as per the Andhra Pradesh Statutes, Rules & Regulations, and the conditions, norms of the Govt. & APSCHE.

S.No.	Name of the Course and Combinations	Intake	Medium
1.	B.A. (Political Science, Economics, Office Management & Secretarial Practice)	30	English
2.	B.Com (Accountancy, Taxation)	30	English
3.	B.Com (Computer Applications)	30	English
4.	B.Sc. (Mathematics, Statistics, Computer Science)	30	English
5.	B.Sc. (Mathematics, Chemistry, Analytical Chemistry)	30	English
6.	B.Sc. (Zoology, Chemistry, Analytical Chemistry)	30	English

Yours faithfully,

(P.N.K.V.GANESH)
ASST. REGISTRAR (CDC)

Copies to:

1. The Principal of the Degree College.
2. The Dean, UG Examinations, A.U. for information and necessary action.
3. The Dean, Academic Affairs, A.U. for information and necessary action.
4. The Controller of Examinations, A.U. for information and necessary action.
5. The Superintendent(s) of E-I to E-IV, Sectional Section, A.U. for information.
6. The Commissioner of Collegiate Education, Andhra Pradesh, Vijayawada.
7. The Secretary, APSCHE, Tuleru, Visakhapatnam.
8. The Secretary to Vice-Chancellor, A.U.

Model Paper
First Year B.A., Degree Examination,
SEMESTER-I
Paper -I : Office Management and Methods.

Time : 3 Hours

Marks : 75

PART-A

5 x 5 = 25 Marks

Answer any FIVE of the following questions. Each carries FIVE marks.

1. Importance of office.
2. Duties of an office Manager.
3. Good filing.
4. Types of Forms.
5. Relation of office with other department of business organization.
6. Importance of office machines.
7. Setting of work standards in office.
8. Techniques of setting standards in office.

PART-B

5 x 10 = 50 Marks

Answer ALL the questions. Each question carries TEN marks.

9.(a) Write an essay on different types of Offices ?

(OR)

9.(b) Write an essay on elements of office managements ?

10.(a).What is Filing ? Explain about centralized and decentralized Filing system ?

(OR)

10.(b) What is the meaning of Indexing? Explain the types of Indexing in a business organization ?

11.(a) Write an essay on Principles of forms designing and specimens of forms used in office?

(OR)

11.(b) Explain what are the different types of records kept in a business organization ?

12.(a) Write an essay on the importance of office safety and safety hazards?

(OR)

12.(b) Explain the steps to improve office security ?

13.(a) Write an essay on different ways of measurement of office work ?

(OR)

13(b) Write about different types of Office manuals and steps involved in preparing office manuals ?

Subject Expert -
B. J. M. Kulkarni

Principal
S.G.A. Govt. Degree College
YELLAMANCHILI - 531111
Visakhapatnam District

MODEL PAPER
FIRST YEAR B.Sc. DEGREE EXAMINATION
SEMESTER-I
ANALYTICAL CHEMISTRY Course-I

Time: 3 hours

Maximum Marks: 75

PART- A

5 X 5 = 25 Marks

Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Explain the terms Mole and molar mass.
2. Explain in brief about the general steps in chemical analysis.
3. Write short note on methods of detecting analytes.
4. What is a Laboratory note book?
5. Write account on types of errors, Accuracy and Precision.
6. Describe the safety with chemicals and waste.
7. What are thermometric methods?
8. Explain how the calibration of volumetric glassware is done.

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

- 9 (a). Explain standard solutions, primary standards and secondary standards giving examples
(or)
(b). Explain the terms a) Molar concentration b) Analytical molarity c) Equilibrium molarity of a particular species d) Percent concentration e) Parts per million and billion
- 10 (a). Write an essay on the operation and theory of the Single pan analytical balance
(or)
(b). Explain errors in weighing, care of an analytical balance
- 11 (a). Describe the use of any five common laboratory apparatus
(or)
(b). What is a pH meter and describe the components of pH meter and its use
- 12 (a). Explain the Gaussian distribution, mean and standard deviations
(or)
(b). Explain the statistical tests of data. Write in detail about i) F test ii) t test
- 13 (a). Explain the Principles of TGA and DTA in detail
(or)
(b). What are thermometric titrations and write its applications

Subject expert
A.V. Ramen

Principal
S.G.A. Govt. Degree College
YELLAMANCHILI - 531 051
Vijayanagara District

MODEL PAPER
FIRST YEAR B.Sc. DEGREE EXAMINATION
SEMESTER-I
ANALYTICAL CHEMISTRY Course-I

Time: 3 hours

Maximum Marks: 75

PART- A

5 X 5 = 25 Marks

Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Explain the terms Mole and molar mass.
2. Explain in brief about the general steps in chemical analysis
3. Write short note on methods of detecting analytes.
4. What is a Laboratory note book?
5. Write account on types of errors, Accuracy and Precision
6. Describe the safety with chemicals and waste.
7. What are thermometric methods
8. Explain how the calibration of volumetric glassware is done

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

- 9 (a). Explain standard solutions, primary standards and secondary standards giving examples
(or)
(b). Explain the terms a) Molar concentration b) Analytical molarity c) Equilibrium molarity of a particular species d) Percent concentration e) Parts per million and billion
- 10 (a). Write an essay on the operation and theory of the Single pan analytical balance
(or)
(b). Explain errors in weighing, care of an analytical balance
- 11 (a). Describe the use of any five common laboratory apparatus
(or)
(b). What is a pH meter and describe the components of pH meter and its use
- 12 (a). Explain the Gaussian distribution, mean and standard deviations
(or)
(b). Explain the statistical tests of data. Write in detail about i) F test ii) t test
- 13 (a). Explain the Principles of TGA and DTA in detail
(or)
(b). What are thermometric titrations and write its applications

Subject expert
A. V. Ramesh

Principal
S.G.A. Govt. Degree College
YELLAMANCHILI - 531 051
Visakhapatnam District

MODEL PAPER

FIRST YEAR B.Sc., DEGREE EXAMINATION

SEMESTER-II

ANALYTICAL CHEMISTRY Course-II: QUANTITATIVE METHODS OF ANALYSIS

Time: 3 hours

Maximum Marks: 75

PART- A

5 X 5 = 25 Marks

Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Explain in brief about the co-precipitation of Gravimetry
2. Explain in brief about the general practical gravimetric procedures
3. Write short note on coulometric titrimetry.
4. Explain the theory of indicators and buffers?
5. What are the different types of rotors used in centrifugation?
6. What is polarography write its applications
7. Write the Ilkovic equation and explain its significance
8. Explain the different types of sampling methods adopted in environmental analysis

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

9 (a). Explain the general principles of precipitation methods of gravimetric analysis

(or)

(b). Explain the general principles of volatilization methods of gravimetric analysis

10 (a). Write an essay on the Aqueous and non-aqueous acid-base titration with examples

(or)

(b). Explain the redox titration, Complexometric titrations and precipitation titrations with examples

11 (a). Describe the determination of Copper and Zinc in brass using polarography

(or)

(b). Explain the experimental set up the instruments used in Polarography and write its applications

12 (a). Explain the sedimentation and relative centrifugal force in detail

(or)

(b). Explain the different types of centrifugation techniques with examples

13 (a). Explain the Environmental pollution from industrial effluents and radiochemical waste

(or)

(b). What are the water pollutants and explain the different methods of waste analysis

Subject expert

A. V. Ramesh

Principal
S.G.A.G. College
Vellal

MODEL PAPER
FIRST YEAR B.Sc., DEGREE EXAMINATION
SEMESTER-III
ANALYTICAL CHEMISTRY Course-III; SEPARATION METHODS-I

Time: 3 hours

Maximum Marks: 75

PART- A

5 X 5 = 25 Marks

Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Explain in brief about the Batch extraction
2. Explain the principle of differential migration
3. Write a short note on modes of chromatography.
4. Explain the various modes of development of paper chromatography
5. Write a short notes on the adsorption chromatography
6. Write a short notes on different types of detectors used in HPLC
7. What is normal phase chromatography, give an example
8. Explain the reversed phase liquid chromatography

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

- 9 (a). Explain the principle of solvent extraction in detail. ii) Explain the determination of Iron (III)
(or)
(b). Explain the action of ion exchangeresins and separation of inorganic mixtures
- 10 (a). Write an essay on the general principles of chromatography in detail
(or)
(b). Explain the terms i) column efficiency and resolution ii) Sample preparation and iii) Chromatograph
- 11 (a). Describe the techniques of paper chromatography and its applications
(or)
(b). Explain the experimental set up of the thin layer chromatography with a detailed note of its applications in quantitative analysis
- 12 (a). Explain the principle of column chromatography and its applications
(or)
(b). Explain the principle and the parts involved in HPLC
- 13 (a). Explain the principle and ion exchangers of Ion exchange chromatography
(or)
(b). Write an essay on liquid liquid partition chromatography

Subject expert

A. V. Ramesh

Principal
S.G.A.G. College
YELLAMAN

Advise to students to prepare a report.

Assessment Methods:

- a. Presentation by individual student
- b. Class test
- c. Laboratory test
- d. Written assignments
- e. End semester University theory and practical examinations

MODEL PAPER

FIRST YEAR B.Sc., DEGREE EXAMINATION

SEMESTER-IV

ANALYTICAL CHEMISTRY Course-IV; SEPARATION METHODS-II

Time: 3 hours

Maximum Marks: 75

PART- A

5 X 5 = 25 Marks

Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Write a short notes on selection and attachment of ligands in affinity chromatography
2. Explain the principle of electro-osmosis
3. Write a short note on the classification of electrophoresis
4. Explain the various applications of electrophoresis
5. Write a short notes on the Filters-nitrocellulose related to dialysis
6. Write a short notes on membrane filtration of fiberglass and polycarbonate
7. Write a short notes on the support media used in membrane filtration
8. Explain the density gradients of centrifugation

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

- 9 (a). Explain the principle of gel chromatography and its applications
(or)
(b). Explain the gas-liquid chromatography and its applications
- 10 (a). Write an essay on the factors affecting mobility, macromolecular size and charge interactions with supporting electrolyte
(or)
(b). Explain in detail about the factors affecting electrophoresis phenomena
- 11 (a). Describe the instrumentation, methodology, preparation of gel-staining and de-staining
(or)
(b). Explain the preparative zone electrophoresis and continuous electrophoresis
- 12 (a). Explain the principle of dialysis and membrane filtration
(or)
(b). Explain the general laboratory methods of membrane filtration
- 13 (a). Explain the principle and types of centrifugation methods
(or)
(b). Write an essay on the sedimentation and relative centrifugal force methods

SEMESTER IV

Course- V

ANALYTICAL CHEMISTRY-5

60hrs (4h/w)

ANALYTICAL BIOCHEMISTRY AND ENVIRONMENTAL CHEMISTRY

Objectives:

Subject expert
A. V. Ramesh

MODEL PAPER
FIRST YEAR B.Sc., DEGREE EXAMINATION
SEMESTER-IV
ANALYTICAL CHEMISTRY Course-V;
ANALYTICAL BIOCHEMISTRY AND ENVIRONMENTAL CHEMISTRY
Time: 3 hours
Maximum Marks: 75

PART- A 5 X 5 = 25 Marks
Answer any **FIVE** of the following questions. Each carries **FIVE** marks

1. Write a short notes on characterization of polysaccharides
2. What are lipids? Write their properties
3. Write a short note on the Blood collection and preservation of samples.
4. Explain the microbiological limit test
5. Write a short notes on the different dosage forms with the IP requirements
6. Write a short notes on the additives used in tablet manufacture
7. Explain the Classification of water pollutants
8. Explain in brief about the Waste water treatment

PART- B

5 X 10 = 50 Marks

Answer **ALL** the questions. Each carries **TEN** marks

- 9 (a). Explain the Biochemical functions of steroid hormones
(or)
(b). Explain the characterization and functions of proteins
- 10 (a). Write an essay on the Composition and functions of blood and blood coagulation.
(or)
(b). Explain in detail about regulation, estimation and interpretation of data for blood sugar
- 11 (a). Describe the Microbiological assay of antibiotics in detail
(or)
(b). Explain the cup plate method and two level factorial assay of ampicillin
- 12 (a). Explain IP requirements and analytical methods for the aspirin and Rifampicin
(or)
(b). Explain the standardization and Quality Control and dosage forms of mouthwashes and ointments
- 13 (a). Explain in detail about the disposal of radioactive wastes
(or)
(b). Describe the pollution due to the industries of Pulp, Paper and Textile

Principal
S.G.A. Govt. Degree College
YELLAMANCHILI - 531 125
Visakhapatnam District

Subject expert
A.V. Ramesh