

Diploma in Actuarial Science
(D.A.S.)

Prospectus No.20131515

संत गाडगे बाबा अमरावती विद्यापीठ
SANT GADGE BABA AMRAVATI UNIVERSITY

वाणिज्य विद्याशाखा
(FACULTY OF COMMERCE)

PROSPECTUS
OF
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Examination 2013



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INDEX

| Sr.No. | Subject | Page No. |
|--------|-------------------------------------------------------------|----------|
| 1. | Special Note for information of the students | 1 |
| 2. | Pattern of Question paper | 2 |
| 3. | Ordinance No.156 | 3 - 8 |
| 4. | Paper-I Mathematical Foundations of Actuarial Science | 9 |
| 5. | Paper-II Interest Theory, Economics and Finance | 9 |
| 6. | Paper-III Actuaries and Insurance | 9 - 10 |
| 7. | Paper-IV Investment Analysis and Risk Management | 10- 11 |

SANT GADGE BABA AMRAVATI UNIVERSITY AMRAVATI
SPECIAL NOTE FOR INFORMATION OF THE STUDENTS

- (1) Notwithstanding anything to the contrary, it is notified for general information and guidance of all concerned that a person, who has passed the qualifying examination and is eligible for admission only to the corresponding next higher examination as an ex-student or an external candidate, shall be examined in accordance with the syllabus of such next higher examination in force at the time of such examination in such subjects papers or combination of papers in which students from University Departments or Colleges are to be examined by the University.
- (2) Be it known to all the students desirous to take examination/s for which this prospectus has been prescribed should, if found necessary for any other information regarding examinations etc., refer the University Ordinances Booklet the various conditions/provisions pertaining to examination as prescribed in the following Ordinances.

| | | |
|-----------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ordinance No. 1 | : | Enrolment of Students. |
| Ordinance No. 2 | : | Admission of Students |
| Ordinance No. 4 | : | National cadet corps |
| Ordinance No. 6 | : | Examinations in General (relevant extracts) |
| Ordinance No. 18/2001 | : | An Ordinance to provide grace marks for passing in a Head of passing and Improvement of Division (Higher Class) and getting Distinction in the subject and condonation of deficiency of marks in a subject in all the faculties prescribed by the Statute NO.18, Ordinance 2001. |
| Ordinance No. 9 | : | Conduct of Examinations (relevant extracts) |
| Ordinance No. 10 | : | Providing for Exemptions and Compartments |
| Ordinance No. 19 | : | Admission of Candidates to Degrees. |

| | | |
|----------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ordinance No. 109 | : | Recording of a change of name of a University student in the records of the University. |
| Ordinance No. 6/2008 | : | For improvement of Division/Grade. |
| Ordinance No.19/2001 | : | An Ordinance for Central Assessment Programme, Scheme of Evaluation and Moderation of answerbooks and preparation of results of the examinations, conducted by the University, Ordinance 2001. |

Dineshkumar Joshi
 Registrar
 Sant Gadge Baba Amravati University

PATTERN OF QUESTION PAPER ON THE UNIT SYSTEM

The pattern of question paper as per unit system will be broadly based on the following pattern.

- (1) Syllabus has been divided into units equal to the number of question to be answered in the paper. On each unit there will be a question either a long answer type or a short answer type.
- (2) Number of question will be in accordance with the unit prescribed in the syllabi for each paper i.e. there will be one question on each unit.
- (3) For every question long answer type or short answer type there will be an alternative choice from the same unit. However, there will be no internal choice in a question.
- (4) Division of marks between long answer and short answer type question will be in the ratio of 40 and 60.
- (5) Each short answer type question shall Contain 4 to 8 short sub question with no internal choice.

SANT GADGE BABA AMRAVATI UNIVERSITY

Faculty of Commerce

% ORDINANCE NO. 156.

Examinations leading to the Diploma in -

- (i) **Financial Management** (आर्थिक प्रबंध पदविका)
- (ii) **Industrial Relations and Personnel Management** (औद्योगिक संबंध व व्यक्तिगत प्रबंध पदविका)
- (iii) **Marketing Management** (विपणन प्रबंध पदविका)
- (iv) **Taxation** (कर निर्धारण पदविका)
- (v) **Office Management** (कार्यालय प्रबंध पदविका)
- (vi) **Farm Management** (शेती प्रबंध पदविका)
- (vii) **Cost and Management Accountancy** (परिव्यय आणि व्यवस्थापन लेखे पदविका)
- (viii) **Advanced Banking and Finance** (उच्च अधिकोषण आणि वित्त पदविका)
- (ix) **Export and Import Management** (आयात आणि निर्यात प्रबंध पदविका),
- (x) **Public Relations** (जनसंपर्क पदविका), and
- (xi) **Actuarial Science.**

1. The Examination leading to the Diploma in (i) Financial Management, (ii) Industrial Relations and Personnel Management, (iii) Marketing Management, (iv) Taxation, (v) Office Management, (vi) Farm Management, (vii) Cost and Management Accountancy (viii) Advanced Banking and Finance, (ix) Export and Import Management, (x) Public Relations, and (xi) Actuarial Science shall be held annually at such places and on such dates as may be appointed by the Board of Examinations.

2. Subject to compliance with the provisions of this Ordinance and of any other Ordinances in force from time to time, an applicant for admission to the examination shall have :

(i) For Diplomas excluding Actuarial Science :

obtained a Bachelor's Degree of this University or of any other Statutory University whose Degree is recognized as equivalent thereto by Sant Gadge Baba Amravati University.

% As made by the Executive Council, dated 20-3-1978, and amended by the Executive Council, dated 29-7-1978, 5-8-1978, and further amended by Ordinance Nos. 3 of 1990, 20 of 1992, 4 of 1997, 9 of 1999, and 5 of 2006.

Effective from the Academic session 2005-06.

For Diploma in Actuarial Science :

obtained a Bachelor's Degree in faculty of Commerce or Degree of Bachelor of Science / Degree of Bachelor of Arts with Mathematics and /or Statistics, of this University or of any other Statutory University whose Degree is recognised as equivalent thereto by Sant Gadge Baba Amravati University; and

- (ii) prosecuted a regular full time course of study for not less than one academic year or a regular part time course of study (extending over an academic year) in a College or Department recognised for the purpose by the University.

Provided that such an applicant shall be either sponsored by his employer or he must have an experience as Junior Executive in Industry or Business or Government Service and keen desire to pursue this course.

Provided further that subject to requirements of admission indicated above, some fresh graduates may be admitted to this course on merit and in accordance with the rules of the University.

3. Without prejudice to the other provisions of Ordinance No. 6 relating to the Examinations in General, the provisions of Paragraphs 5, 8, 10, 27 and 32 of the said Ordinance shall apply to every Collegiate candidate.

4. The fee for the examination shall be as per Ordinance No. 12.

5. An applicant for the examination prosecuting a regular course of study to the Diploma Course shall not seek admission to any other academic course in this or any other University.

6. (i) The examination for the Diploma course shall comprise four papers of 100 marks each.

(ii) The 100 marks shall be distributed as follows :-

| | Marks |
|-------------------------|-------|
| (a) Written Examination | 80 |
| (b) Sessional/Practical | 20 |

Note :- Sessional/Practical marks shall be awarded by the Head of the College/ Department in consultation with the teachers and shall be based on :-

- (i) Terminal Examination,
- (ii) Case Studies, Project Report and Factory Visits etc.,
- (iii) Assignment, and Term Report shall be based on (i), (ii) and (iii) above.

7. The scope of the subjects shall be as indicated in the Syllabus.
8. The Papers, Practical/Sessional, College Assessment in which a candidate is to be examined and the maximum marks which each Paper and College Assessment in Practical/Sessional carries and the minimum marks which an examinee must obtain in order to pass the Examination are detailed in Appendix-A* provided that the Papers, Practical/Sessional College Assessment in which a candidate is to be examined and the maximum Marks which each paper and College Assessment in Practical/Sessional carries and the minimum which an examinee must obtain in order to pass the Examination in Diploma in Marketing Management (विपणन प्रबंध पदविका) Shall be as detailed in Appendix- B.
9. An examinee who is unsuccessful at the examination shall be eligible for admission to the examination on payment of a fresh fee prescribed for the examination together with an ex-student fee shall be as per Ordinance No.12 and on compliance with the conditions of the Ordinance in force from time to time.
10. An examinee who has failed at the Sessional/Practical examination only shall be required to register himself afresh for doing the Sessional/Practical work again in the College/ Department concerned in the subject or subjects in which he so failed, on payment of a fresh annual sessional fee shall be as per ordinance No. 12. Such registration shall be done on or before the 16th August of the academic year, at the end of which his Sessional/Practical marks are to be submitted. The Head of the Department/College, shall, on being satisfied about the completion of the Sessional/Practical of such a candidate, send the fresh Sessional/Practical marks to the University and these fresh Sessional/Practical marks shall be taken into consideration for computing his result at the examination.
11. (i) Successful examinees obtaining 60% or more marks in the aggregate at the examination shall be placed in the First Division and those obtaining less than 60% but not less than 50% in the Second Division.
(ii) Successful examinees obtaining 70% or more marks in the aggregate at the examination shall be declared to have passed the examination with Distinction.
12. Provisions of Ordinance No. 18 of 2001 relating to an Ordinance to provide grace marks for passing in a head of passing and improvement of Division (Higher Class) and getting distinction in the subject and condonation of deficiency of marks in a subject in all the faculties prescribed by the Statute No. 18, Ordinance, 2001 and of Ordinance No.10 relating to providing for Exemptions and Compartments shall apply to the examination under this Ordinance.

*Effective from the Academic Session 1993-94

13. As soon as possible after the examination but not later than 30th June next following the Board of Examinations shall publish a list of successful examinees.
14. Notwithstanding anything to the contrary in this Ordinance, no person shall be admitted to this examination if he has already passed the same examination or an equivalent examination of any other Statutory University.
15. A successful examinee shall receive a Diploma in the prescribed form, signed by the Vice-Chancellor.

* * * * *

APPENDIX - A

Examinations leading to the Diploma in -

- (i) **Financial Management** (आर्थिक प्रबंध पदविका)
 *(ii) **Industrial Relations and Personnel Management** (औद्योगिक संबंध व व्यक्तिगत प्रबंध पदविका)
 (iii) **Taxation** (कर निर्धारण पदविका)
 *(iv) **Office Management** (कार्यालय प्रबंध पदविका)
 *(v) **Farm Management** (शेती प्रबंध पदविका)
 *(vi) **Cost and Management Accountancy** (परिव्यय आणि व्यवस्थापन लेखे पदविका)
 *(vii) **Advanced Banking and Finance** (उच्च अधिकोषण आणि वित्त पदविका)
 *(viii) **Export and Import Management** (आयात आणि निर्यात प्रबंध पदविका)
 *(ix) **Public Relations** (जनसंपर्क पदविका), and
 (x) **Actuarial Science.**

| Subject/ Paper Assessment | Theory/Practical/ Sessional/ College | Maximum Marks | Minimum Pass | |
|---------------------------------|-------------------------------------------|------------------|-----------------|----|
| Paper-I | Theory Paper | 80 | 32 | 50 |
| | Practical/Sessional/College Assessment | 20 | 10 | |
| Paper-II | Theory Paper | 80 | 32 | 50 |
| | Practical/Sessional/College Assessment | 20 | 10 | |
| Paper-III | Theory Paper | 80 | 32 | 50 |
| | Practical/Sessional/College Assessment | 20 | 10 | |
| Paper-IV | Theory Paper | 80 | 32 | 50 |
| | Practical/Sessional/College Assessment | 20 | 10 | |

- Note :** (1) Minimum marks for passing in paper as a whole including Theory and Practical/Sessional or for passing at the Sessional in a paper shall be 50%.
 (2) Minimum pass marks for theory part of a paper shall be 40%
 (3) Minimum aggregate marks for passing the examination as a whole shall be 50%

* Syllabus is not ready.

= % APPENDIX - B

Examination for Diploma in Marketing Management
(विपणन प्रबंध पदविका)

| Subject/ Paper Assessment | Theory/Practical/ Sessional/ College | Maximum Marks | Minimum Pass | |
|---------------------------------|--------------------------------------------|------------------|-----------------|----|
| Paper-I | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |
| Paper-II | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |
| Paper-III | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |
| Paper-IV | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |
| Paper-V | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |
| Paper-VI | Theory Paper | 80 | 32 | 50 |
| | Practical/ Sessional/College Assessment | 20 | 10 | |

- Note :-** (1) Minimum Marks for passing paper as a whole including Theory and Practical/Sessional or for passing at the Sessional in a paper shall be 50%.
 (2) Minimum pass Marks for Theory part of a paper shall be 40%
 (3) Minimum aggregate Marks for passing the Examination as a whole shall be 50%.

* * * * *

*Effective from the Academic Session 1993-94

**SYLLABUS
PRESCRIBED FOR
DIPLOMA IN ACTUARIAL SCIENCE
(Effective from the session 2005-2006)**

Paper-I - MATHEMATICAL FOUNDATIONS OF ACTUARIAL SCIENCE

| | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit-I | Calculus I, compute limits, derivatives & limits of functions, analysis of functions, chain rule, fundamental theorem of Calculus, substitution. |
| Unit-II | Linear methods I, linear systems of equations of arbitrary size, computer determinants, vectors & matrices. |
| Unit-III | Statistical measures, Averages, Mean, Mode, Median, Standard deviation, Skewness, Interpolation – Newton & binomial methods. |
| Unit-IV | Probability & Statistics, Sample spaces, discrete & continuous random variables, Statistical estimators, Statistical hypothesis, Time series analysis. |

Paper-II - INTEREST THEORY, ECONOMICS & FINANCE

| | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit-I | Theories of Interest, annuity functions, cash flows, present & accumulated value calculations, simple & compound interest. |
| Unit-II | Basic microeconomic principles, price, pricing decision, markets, related regulatory issues, business decision. |
| Unit-III | Money- concept & function, R.B.I., Commercial Banks. The theory of effective demand. Propensity to consume, Propensity to save, Multiplier, Accelerator. |
| Unit-IV | Financial statements, financial ratios, cash flow, stock valuation, dividend growth model, price/earning ratios, net present value, payback, discounted pay back models, Valuation of securities, pricing theories. |

Paper-III ACTUARIES & INSURANCE

| | |
|--------|------------------------------------------------------------------------------------------------------------------------------------|
| Unit-I | Introduction to actuarial practice, actuaries, role of actuaries, actuarial society of India, Job opportunities in India & abroad. |
|--------|------------------------------------------------------------------------------------------------------------------------------------|

| | |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit-II | Nature and scope of Insurance- General principles of Insurance, Insurance as a social and Business security Tool, Procedure regarding formation of Insurance policy and settlement of policy claims, Progress and performance, Privatisation of Insurance and its effects. |
| Unit-III | Kinds of Insurance – Life Insurance, Fire Insurance, Marine Insurance, Crop Insurance, Livestock Insurance. Other forms of Insurance cover - Motor, Personal, Accident, Sickness and other liability cover. |
| Unit-IV | Risk Management & Insurance - Risk identification, Life Insurance, Property Insurance, Premiums, Management of risk of loss to personal property, risk of loss due to death/ disability, Insurance Regulatory & Development Authority (I.R.D.A.). |

Paper-IV INVESTMENT ANALYSIS & RISK MANAGEMENT

| | |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit-I | Investment- Concept, types, Investment alternatives. The Return to Risk & investment decisions. |
| Unit-II | Investments of Money market, Operations of Indian stock market, Primary & Secondary market. |
| Unit-III | Portfolio Management - Introduction, Optimum Portfolio selection problem, Marketing Portfolio theory. Mean variance criterion (MVC). The nature of Investment Risk, MVC & Portfolio selection, Portfolio of two Risk securities, A three security Portfolio. |
| Unit-IV | Efficient Frontier, Tracing of Efficient Frontier, Relationship between unleveraged & Leveraged Portfolio. Application of Market Model in Portfolio construction, Capital Asset pricing Model, Constructing Efficient frontier- Constructing the optimum Portfolio. |

REFERENCE BOOKS:

Tata-Mc Graw-Hill

1. Risk Management and Insurance, by Scott Harrington & Gregory 2nd Ed.
2. The Fundamentals of Risk Measurement by Massison
3. Risk Management and Insurance by C.Arthur C. Williams (International Ed.)
4. Pension Planning by Eversett T.Allen.

5. Theory of Interest by Stephen Kellison 2nd Ed. (International Ed.)
6. Value of Risk by Philippe Josion 2ⁿ Ed. (International Ed.)
7. Financing and Risk Management by Brealey & Myers.
8. Governance and Risk by George S.Dallas.
9. Risk Management by Michel.
10. Investment Analysis and Portfolio Management by Prasanna 2nd ed.
11. Investments by Bodie 6th ed.
Vidya Vikas
12. Risk Management by David E Bell & Aurthur Schleifer.
Response Books
13. Insurance in India by Palande P.S., Shah R.S. & others.
