FACULTYOF ARTS
M.A. (ENGLISH) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ENGLISH LITERATURE UPTO THE EARLY 17TH AND 18TH CENTURY - I
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Define the literary term 'Epic'.
2. Give a character sketch of Satan from Milton's *Paradise Lost.*
3. Describe the Biblical Context of Dryden's Absalam and Achitophel.
4. *Joseph Andrews* is a picaresque novel of the road. Explain.
5. What is *Eugenius'* argument on, in Dryden's Essay of Dramatic Poesy.

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Neoclassicism represented a reaction against the optimistic, exuberant, and Enthusiastic Renaissance view of man. Explain.
   (OR)
   b) In the Victorian era (1837-1901) the novel became the leading literary genre in English. Elucidate.

7. a) Is it possible to defend the idea that Satan is the true hero of *Paradise Lost*? Explain why or why not.
   (OR)
   b) Describe the catalogue of demons that follows Satan's escape from the burning lake in Milton's *Paradise Lost.*

8. a) Write a brief character sketch of Zimri, Shimei, Corah, Brazillai and Zadoc From Dryden's *Absalom and Achitophel.*
   (OR)
   b) Analyse these lines from Dryden's poem Song for St.Cecilia's Day.
      So when the last and dreadful hour
      This crumbling pageant shall devour,
      The trumpet shall be heard on high,
      The dead shall live, the living die,
      And music shall untune the sky.

9. a) Comment on the major conflict, rising action, climax and falling action in Defoe's *Robinson Crusoe*.
   (OR)
   b) How is Parson Adams characterization different from the other characters in Fielding's Joseph Andrews? Explain.

10. a) Dryden's *Essay of Dramatic Poesy* is an exposition of several of the major critical positions of the time. Explain.
    (OR)
    b) List out Shakespeare's 'excellences' and 'faults' according to Samuel Johnson in his essay.

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FACULTY OF ARTS
M.A. (HND) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
SUBJECT: BHARATIYA SAHITYA
PAPER – IV

Time: 3 hours]

[Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

सूचना - निम्न लिखित प्रश्नों के उत्तर एक पृष्ठ से अधिक न हो ।   (5x4=20)

1. वैदिक साहित्य कौन–कौन से है? उल्लेख करें ।

2. श्रिमदभागवत के विशेषताओं का वर्णन कीजिए ।

3. राम भक्ति साहित्य की विशेषताऐं क्या है?

4. नवजागरण कालीन राजनीतिक शासन व्यवस्था पर लेख लिखिए ।

5. राष्ट्रीय काव्य–धारा पर टिप्पणी लिखिए ।

Section – B

सूचना - निम्न लिखित प्रश्नों के उत्तर 4 पृष्ठों से अधिक न हो ।   (5x10=50)

6. a) भारतीय साहित्य में मूलभूत एकता का वर्णन कीजिए ।
   (OR)
   b) भारतीय साहित्य में भारतीयता की विशेषताओं पर लेख लिखिए ।

7. a) उपजीव्य ग्रंथ क्या है? महाभारत की विशेषताओं का सोदाहरण वर्णन करो ।
   (OR)
   b) रामायण की रचना किसने की? रामायण की विशेषताओं को समझाइए ।

8. a) राजा राम मोहन राय के सामाजिक योगदान की चर्चा कीजिए ।
   (OR)
   b) दयानंद सरस्वती व आर्य–सामज के कार्य प्रणाली पर चर्चा कीजिए ।

9. a) भक्ति द्रविड अपजी–कथन का औचित्य सिद्ध किजिए ।
   (OR)
   b) हिंदी भक्ति साहित्य के संतों के सामाजिक भावैक्य पर प्रकाश डालिए ।

10. a) समकालीन साहित्य में नारीवादी साहित्य का लेखा–जोखा प्रस्तुत कीजिए ।
    (OR)
    b) दलित साहित्य के उद्भव व विकास का विवेचन कीजिए ।

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FACULTYOF SOCIAL SCIENCES

M.A (Mass Communication) I– SEMESTER REGULAR EXAMINATIONS, DEC-2017

ADVERTISING

PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Define advertising.
2. Ad agency
3. Facebook
4. Symbols and logos
5. Surrogate Ads

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Write about the evolution and growth of the advertising and its functions.

(OR)

b) What are the different types of advertising and write about the Print, Radio and TV ads.

7. a) "Role of Ad agency in the advertising industry is very important" comment.

(OR)

b) Types of Ad agencies and their role in the success of Ads.

8. a) Advertising campaigns and explain about the campaign planning.

(OR)

b) Digital media advertising and the use of social media sites like Facebook, Twitter and Blogs.

9. a)Write an essay on the portrayal of women in advertising.

(OR)

b) Write about the impact of advertisements on women and children.

10. a) Explain about the moral and ethical aspects of advertising.

(OR)

b) What are the socio-economic and cultural effects of advertising?

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FACULTY OF ARTS
M.A.(TSD) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
EVALUATION OF CLASSICAL TELUGU LITERATURE
PAPER – IVA

Time: 3 hours]　　　　　　　　　　　　　　　　　　　　　[Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

సూచన: క్రింది ప్రశ్నలకు <u>ఒకపేజి</u> మించకుండ సమాధానాలు వ్రాయండి,　　　　(5x4=20)

1. మౌఖిక సాహిత్యం.
2. అధర్వణాచార్యుడు.
3. ఉభయ కవిమిత్రుడు.
4. మొల్ల.
5. భాస్కరుడు.

Section – B

సూచన: క్రింది ప్రశ్నలకు <u>నాలుగు పేజీలు</u> మించకుండ సమాధానాలు వ్రాయండి.　　　　(5x10=50)

6. a) ప్రాచీన సాహిత్య చరిత్రను తెలుసుకోవటానికి ఆధారాలను తెలుపండి.
   (లేదా)
   b) నన్నయ భారతాంధ్రీకరణ పద్ధతిని వివరించండి.

7. a) సోమన ద్విపద కావ్యములను సోదాహరణముగా వివరించండి.
   (లేదా)
   b) శివకవుల వాఙ్మయంలో తెలియవచ్చే భాషావిశేషాలను వివరించండి.

8. a) తిక్కన కవిత్వంలో నాటకీయతను పేర్కొనండి.
   (లేదా)
   b) మడికి సింగన రచనారీతులను తెలుపండి.

9. a) ఎర్రన రచనలను సోదాహరణంగా వివరించండి.
   (లేదా)
   b) తెలుగు వాఙ్మయములోని కథాకావ్యముల గురించి సంగ్రహంగా రాయండి.

10. a) శ్రీనాథుని అనువాద వైఖరిలోని విశిష్ట లక్షణాలను విశదీకరించండి.
    (లేదా)
    b) పిల్లలమర్రి పినవీరన శృంగారశాకుంతలాన్ని వివరించండి.

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FACULTY OF ARTS
M.A.(TSD) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
STUDY OF LITERARY TRANSLATION
PAPER – IVB

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

సూచన: క్రింది ప్రశ్నలకు <u>ఒకపేజి</u> మించకుండ సమాధానాలు వ్రాయండి,   (5x4=20)

1. అనువాదం అంటే ఏమిటో నిర్వచించి వివిధ రకాలైన అనువాదాలను పేర్కొనండి.

2. అనువాద శాస్త్రం కళ వివరించండి.

3. అనువాదం వల్ల ప్రయోజనాలను తెలపండి.

4. సాహిత్యానువాదం గురించి వివరించండి.

5. తెలుగు–సంస్కృత భాషాసాహిత్యాల మధ్య అనువాదాల గురించి తెలపండి.

Section – B

సూచన: క్రింది ప్రశ్నలకు <u>నాలుగు పేజీలు</u> మించకుండ సమాధానాలు వ్రాయండి.   (5x10=50)

6.   a) అన్ని అంశాల్లో అనువాదం అవసరమే? ఎలా?

(లేదా)

   b) సాహిత్యానువాదం, శాస్త్రానువాదం, భేదసాదృశ్యాలను గురించి తెలుపండి.

7.   a) అనువాదం చేసేటప్పుడు ప్రాచీన సాహిత్యం–ఆధునిక సాహిత్యాల మధ్య తేడా గురించి తెలుపండి.

(లేదా)

   b) అనువాదంలో సాంస్కృతిక సమస్యను గురించి సోదాహరణంగా వివరించండి.

8.   a) కావ్యానువాదం–వచనానువాదాలకు గల తేడాను విపులీకరించండి.

(లేదా)

   b) అనువాద సమస్యలను వివరించి వాటిని ఏ విధంగా అధిగమించాలో తెలపండి.

9.   a) అనువాదంలో సహజత్వం–కృత్రిమత్వం చర్చించండి.

(లేదా)

   b) ఉత్తమ అనువాదం ఎలా ఉంటుంది.

10. a) అనువాద సూత్రాలను గురించి పేర్కొనండి.

(లేదా)

   b) అనువాద లేదా భావాలను ప్రస్తావించి వివరణాత్మకంగా రాయండి.

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FACULTY OF ARTS
M.A. URDU I– SEMESTER REGULAR EXAMINATIONS, DEC 2017
TELANGANA KA SHAIR-O-ADAB
PAPER –IV

Time: 3 Hours] [Max. Marks: 70

نوٹ : حصّہ 'الف' اور حصّہ 'ب' کے تمام سوالوں کے جواب مطلوب ہیں ۔

(حصّہ 'الف')

نوٹ : درج ذیل سوالات کے جوابات تحریر کیجیے ۔ کوئی جواب ایک
صفحے سے زائد نہ ہو ۔ (5x4=20)

1 ۔ تلنگانہ کا تاریخی پس منظر پر مختصر اُروشنی ڈالیے ۔

2 ۔ امجد حیدرآباد کی شعری خدمات کا اجمالی جائزہ لیجیے ۔

3 ۔ مغربی ہمایوں مرزا کے بارے میں آپ کیا جانتے ہیں ۔ لکھیے ۔

4 ۔ پروفیسر یوسف سرمست کی تنقیدی خدمات کا احاطہ کیجیے ۔

5 ۔ شاذ تمکنت کی شاعری کے امتیازات پر روشنی ڈالیے ۔

(حصّہ 'ب')

نوٹ : درج ذیل سوالات کے جوابات تحریر کیجیے ۔ کوئی جواب
چار صفحات سے زائد نہ ہو ۔ (5x10=50)

6 ۔ جیلانی بانو کی ناول نگاری کے سماجی سروکار کا تجزیہ کیجیے ۔

(یا)

اقبال متین کی افسانہ نگاری کے امتیازات کی وضاحت کیجیے ۔

7 ۔ ڈاکٹر زور کو "بابائے دکنیات" کیوں کہا جاتا ہے ؛ تفصیل سے لکھیے ۔

(یا)

پروفیسر سیدہ جعفر کے تحقیقی کارناموں کا تعارف کرائیے ۔

P.T.O.

8:۔ صنفِ رباعی کے حوالے سے امجد حیدر آبادی کے فکر و فن کا جائزہ لیجیے ۔

(یا)

اردو کے ترقی پسند شعرا میں مخدوم محی الدین کے مقام کا تعین کیجیے ۔

9:۔ مجتبیٰ حسین کے طنز و مزاح کا تنقیدی جائزہ لیجیے ۔

(یا)

تلنگانہ میں مزاحیہ شاعری کے ارتقا' پر روشنی ڈالیے ۔

10:۔ نصیر الدین ہاشمی کے ادبی و تحقیقی خدمات پر جامع مضمون تحریر کیجیے ۔

(یا)

آزادی کے بعد تلنگانہ میں اردو کے موقف پر روشنی ڈالیے ۔

FACULTY OF SOCIAL SCIENCES
M.A (Economics) I– SEMESTER REGULAR EXAMINATIONS, DEC-2017
PUBLIC ECONOMICS-I

PAPER – IV

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Public goods
2. Aggregation of Preferences
3. Regional Imbalances
4. Project evaluation
5. VAT

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6.   a) Explain the changing role of state in a mixed economy.
                         (OR)
     b) What is the markets mechanism followed in Public and Private Goods?

7.   a) What do you mean by Preference Revelation and aggregation of Preferences?
                         (OR)
     b) Discuss the Direct unproductive profit seeking activities.

8.   a) Critically analyze The Voluntary Exchange Models of Public Policy.
                         (OR)
     b) Discuss the importance of infrastructure facilities in development and the role the
        Public Sector in their Provision.

9.   a) Critically examine The Wagner's law of increasing state activities.
                         (OR)
     b) Analyse the role of Cost-Benefit analysis in the Project Evaluation.

10. a) Critically examine the benefit approach of taxation.
                         (OR)
     b) Discuss important factors influencing tax shifting and incidence.

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FACULTY OF SOCIAL SCIENCES

M.A. (Political Science) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017

POLITICAL SOCIOLOGY

PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Class
2. Political Modernization
3. Peer Group
4. Lag in Political Communication
5. Legitimacy

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Examine the scope and importance of Political Sociology.
   (OR)
   b) Differentiate the features of Class and Caste as Social Markers.

7. a) Explain Tradition and Modernity.
   (OR)
   b) Discuss the reasons for Political Decay.

8. a) Define Political Culture and explain its importance in democratic societies.
   (OR)
   b) Critically examine various Agents of Political Socialization.

9. a) Explain different kinds of Political Communication.
   (OR)
   b) Evaluate the critical determinants of Political Participation.

10. a) Discuss the theory of Circulation of Elites.
    (OR)
    b) Explain the various forms of Authority.

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FACULTY OF SOCIAL SCIENCES
M.A. (Public Administration) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
INDIAN ADMINISTRATIVE SYSTEM-I
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70
Note: Answer all questions from Section – A and Section – B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. British Administration in India
2. Prime Minister
3. Ministry of Home Affairs
4. Election Commission
5. National Development Council

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Write an essay on District Administration under the Mughal Empire.
   (OR)
   b) Describe the Political and Administrative Context of Indian Administration.

7. a) Discuss the Emergency powers of Indian President.
   (OR)
   b) Explain the Composition and Functions of the cabinet committees.

8. a) Write an essay on Cabinet Secretary.
   (OR)
   b) Discuss the Organization and Functions of the Prime minister's office.

9. a) Discuss the Structure and Functions of the finance commission.
   (OR)
   b) Write an essay on the Strength and Weakness election commission.

10. a) Write an essay on enquiry procedure of the Nation Human Right Commission.
    (OR)
    b) Describe the composition and powers of the National commission on ministers.

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FACULTY OF SOCIAL SCIENCES
M. S.W. I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
SOCIAL POLICY AND PLANNING
PAPER – IV (a)

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Values of social policy
2. Contribution of research in policy formulation
3. Child welfare policy
4. Gender related issues
5. Weaker sections

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Explain the need and importance of social welfare policy in India.

(OR)

b) Discuss the role of social policy in social development.

7. a) Describe the role of interest groups in social policy formulation.

(OR)

b) Examine the role of social case worker in implementation of social policy.

8. a) Discuss the evaluation of social welfare service in India.

(OR)

b) Discuss the policies related to rural development in India.

9. a) Define Planning and discuss the role of Planning Commission in India.

(OR)

b) Describe the role of five year plans with special reference to women.

10. a) Discuss the role of social welfare administration in the development of Telangana State.

(OR)

b) Explain the role and importance of social work research in implementation of social policy.

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FACULTY OF SOCIAL SCIENCES
M. S. W. I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
NGO MANAGEMENT
PAPER – IV (b)

Time: 3 Hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Write note on registration of a NGO.
2. Public relations in NGO management.
3. Fund raising.
4. Explain the objectives of project proposal.
5. Write note on advocacy.

Section – B (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Describe the types of non-profit organizations.

(OR)

   b) Discuss the eligibility conditions of a NGO for getting grants.

7. a) Discuss the leadership and coordination in NGO management.

(OR)

   b) Discuss the intra agency and interaction process.

8. a) Explain the process of budget preparation.

(OR)

   b) Describe the financial management in NGO.

9. a) Discuss the following topics:
      i) Conflict resolution   ii) Documentation

(OR)

   b) Discuss the following topics:
      i) Resource mobilization   ii) Organizing meetings

10. a) i) Describe the voluntary agencies.
       ii) Discuss the research evaluation.

(OR)

   b) i) Explain the bilateral funding of NGO's.
      ii) Write a note on Networking and Training.

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FACULTYOF BUSINESS MANAGEMENT
MBA I – SEMESTER REGULAR EXAMINATIONS, DEC 2017
BUSINESS COMMUNICATION
PAPER – IV

Time: 3 Hours]   [Max. Marks: 50

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x2=10)

Answer the following questions in not more than **ONE** page each:

1. Communication Process.
2. Written Communication benefits.
3. Skimming.
4. Interview.
5. Personality.

<u>Section – B</u>   (5x8=40)

Answer the following questions in not more than **FOUR** pages each:

6. a) Explain about communication, its importance and objectives.

(OR)

   b) Discuss the barriers of effective communication and techniques of effective
      communication.

7. a) Write about Oral Communication. Write the barriers and principles of effective oral
       communication.

(OR)

   b) Brief Non-Verbal Communication. Write in detail various types of non verbal
      communication.

8. a) What do you understand by Business Letter. Explain any two types of Business Letters.

(OR)

   b) What is a Case? Write how to overcome the difficulties of case methods.

9. a) Write about your CV in detail.

(OR)

   b) Discuss about the types and preparation process of Interviews.

10. a) What do you understand by Personality Development. Discuss in detail the various
        factors affecting personality development.

(OR)

   b) What is meant by Stress? Write in detail the various stress management techniques.

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FACULTY OF COMMERCE
M.Com. (GENERAL) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
FINANCIAL MANAGEMENT
PAPER –IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Explain the concept of 'time value of money'.
2. What is Internal Rate of Return (IRR)?
3. How do you determine cost of equity capital?
4. What is optimum capital structure?
5. What are the objectives of inventory management?

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) "Financial management is in many ways an integral part of the job of managers". Comment.

(OR)

b) Discuss the scope and objectives of financial management in the context of changing business environment.

7. a) What is capital budgeting? Briefly explain various techniques of evaluation of capital budgeting projects.

(OR)

b) A company whose cost of capital is 12% is considering two mutually projects X and Y, the details of which are:

	Investment	Project –X	Project – Y
		70,000	70,000
Cash inflow after taxes: year	1	10,000	50,000
	2	20,000	40,000
	3	30,000	20,000
	4	45,000	10,000
	5	60,000	10,000

Compute the net present value of the two projects and suggest which project should be undertaken?

8. a) What is risk? Briefly explain the prominent statistical techniques to handle risk in capital budgeting decisions.

(OR)

b) From the following information supplied to you, determine the appropriate weighted average cost of capital, relevant for evaluating long-term investment projects of the company.

Cost of equity   12 per cent
After-tax cost of long-term debt   7 per cent
After-tax cost of short-term loans   4 per cent

Source of Capital	Book-value	Market value
Equity capital	Rs.5,00,00,000	Rs.7,50,000
Long-term debt	Rs.4,00,00,000	Rs. 3,75,000
Short-term debt	Rs.1,00,00,000	Rs.1,00,000

9. a) Critically evaluate Modigliani and Miller approach to capital structure and valuation of a firm.

(OR)

b) The earnings per share of a company is Rs. 8 and the rate of capitalization applicable is 10 per cent. The company has before it, an option of adopting (i) 50, (ii) 75 and (iii) 100 per cent dividend payout ratio. Compute the market price of the company's quoted shares as per Walter's Model if it can earn a return of (a) 15, (b) 10 and (c) 5 per cent on its retained earnings.

10. a) What re the different approaches to financing of working capital requirements? Explain in detail.

(OR)

b) Alphorns Limited is examining the question of relaxing its credit policy. It sells at present 20,000 units at a price of Rs.100 per unit, the variable cost per unit is Rs.88 and average cost per unit at the current sales volume is Rs. 92. All the sales are on credit, the average collection period being 36 days.

A relaxed credit policy is expected to increase sales by 10 per cent and the average collection period to 60 days. Assuming 15 per cent return on additional investments, should the firm relax its credit policy?

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FACULTY OF COMMERCE

M.Com. (E-Commerce) I – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
FUNDAMENTALS OF INFORMATION TECHNOLOGY
PAPER – IV

Time: 3 Hours] [Max. Marks: 50

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u> (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Diligence and digital signals.
2. Booting Process.
3. MS-Power Point.
4. Systems Analysis and Design.
5. Use of internet in Research.

<u>Section – B</u> (5x6=30)

Answer the following questions in not more than **FOUR** pages each:

6. a) Briefly explain the elements of a computer systems.

(OR)

   b) Explain Primary and Secondary Storage Devices.

7. a) What is software and write the application with suitable example.

(OR)

   b) What is DOS? Discuss any five internal and external commands of MS-DOS.

8. a) Write the features of MS-Word.

(OR)

   b) Discuss the uses of MS-Excel and how it useful for office automation.

9. a) Write the meaning of System Analysis and Design and explain it uses in system analysis.

(OR)

   b) Describe the role and responsibilities in system development.

10. a) Define the following:
    i) www.   ii) HTTP   iii) TCP

(OR)

    b) What is a virus and explain the various types of VIRUS.

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FACULTY OF SCIENCE

M.Sc. (Applied Statistics) – I SEMESTER REGULAR EXAMINATIONS, DEC-2017

SAMPLING THEORY AND SURVEYS

PAPER: IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section –B.

Section – A   [5x4 = 20

Answer the following questions in not more than **ONE** page each:

1. Define unequal probability sampling with a suitable example.
2. Explain Ratio methods of estimation. Gives a suitable example.
3. Find an unbiased estimator for the population mean in cluster sampling with clusters of unequal sizes.
4. Discuss the different sources of non sampling errors.
5. Distinguish between cluster sampling and two stage sampling.

Section – B   [5x10 = 50

Answer the following questions in not more than **FOUR** page each:

6. a) Describe cumulative total and Lahiri's methods for drawing PPSWOR.

(OR)

b) Define Hansen-Hurwitz estimator for a population mean. Evaluate its expected value and variance.

7. a) Derive the bias and mean square error for the ratio estimator of population total under SRSWOR.

(OR)

b) Derive the variance of Regression estimator when the regression co-efficient is known. Also derive the estimator of variance.

8. a) In cluster sampling with clusters of equal sizes, obtain an unbiased estimator of population mean. Also derive the variance of the estimator.

(OR)

b) Define two stage sampling. Derive the expressions for optimum value of sample size in two stage sampling with equal first stage units.

9. a) Discuss the steps involved in processing of survey data.

(OR)

b) Write briefly on the following:
   i) Sampling frame
   ii) Pilot Survey

10. a) Obtain Horwitz -Thompson estimator for the population total and derive its variance.

(OR)

b) Discuss the applications of two stage sampling. Explain the estimation procedure when the primary stage units are of equal sizes. Derive the variance of estimator.

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FACULTY OF SCIENCES
M.Sc. (Bio-tech.) I – REGULAR EXAMINATIONS, DEC- 2017
Communication Skills, Computer Basics Cyber Crime
PAPER – IV

Time: 3 hours]   [Max. Marks: 70
Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What are the prepositions in communication vocabulary?
2. Write a short note on Arithmetic Logic Unit.
3. What is FTP? Explain.
4. What is a Computer Fraud? Explain.
5. Explain different types of crimes in Information Technology.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) What are the different Presentation Skills? Explain in detail.
   (OR)
   b) Discuss about different rules to prepare a resume.

7. a) Explain basic I/p and O/p devices of a computer.
   (OR)
   b) Explain any five external commands of DOS.

8. a) What is HTML? Explain the structure of HTML with a sample program.
   (OR)
   b) What are the different parts if Browser Window? Explain in detail.

9. a) Explain the following.
      i) Hacking   ii) Virus   iii) Computer forgery
   (OR)
   b) What are the different techniques for prevention of cybercrime? Explain.

10. a) What is a Group Discussion? Explain the fundamental steps in group discussion.
   (OR)
   b) What are the different Applications of Computers in Biology? Explain.

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FACULTY OF SCIENCES
M.Sc. (BOTANY) I – SEMESTER REGULAR EXAMINATION, DEC- 2017
PLANT BIOCHEMISTRY AND INTERMEDIARY METABOLISM
PAPER – 04

Time: 3 hours] [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Isozymes
2. Cellulose
3. Fluid Mosaic Model
4. Fermentation
5. Terpenoids

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Discuss the concepts of First law of Thermodynamics and Enthalpy.

(OR)

b) Write about the classification and nomenclature of enzymes.

7. a) What are oligosaccharides? Give the structure and function of important oligosaccharides of plants.

(OR)

b) Discuss the role of β-oxidation and glyoxylate cycle in the conversion of lipids to sugars in oil seeds during germination.

8. a) Write an essay on the classification of amino acids.

(OR)

b) Discuss various forms of structure of proteins with suitable examples.

9. a) Describe the Tricarboxylic Acid cycle and its regulation in detail.

(OR)

b) Explain the biochemical pathway of Hexose Monophosphate shunt and its significance in plant metabolism.

10. a) Define the terms catabolism and anabolism and add a note on Gluconeogenesis.

(OR)

b) Write about the saturated and unsaturated fatty acids of biological importance.

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FACULTY OF SCIENCES

M.Sc. (GEOINFORMATICS) I – SEMESTER REGULAR EXAMINATIONS, DEC- 2017

CARTOGRPHY AND DIGITAL MAPPING

PAPER – IV

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Gnoman
2. Graph Scale
3. Map Legend
4. Cythinelnical Projection
5. Thematic Map

Section – B

Answer the following questions in not more than **FOUR** page each: (5x10=50)

6. a) Write about the Greeks Contribution to cartography during Ancient Period.

(OR)

b) Explain about the evolution of Cartography.

7. a) Illustrate various types of map projections.

(OR)

b) Describe the scope of cartography.

8. a) Write about the process of map compilation.

(OR)

b) Write an essay on Constraints and Restrictions in Map design.

9. a) Classify map symbols and explain with suitable examples.

(OR)

b) Cartography deals with visual display - Discuss.

10. a) Explain the typology of maps and their uses.

(OR)

b) Write about the Cartographic techniques employed box compiling physiographic maps.

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FACULTY OF SCIENCE
M.Sc. CHEMISTRY (OC/PC) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ANALYTICAL TECHNIQUES AND SPECTROSCOPY-I
PAPER – IV
(Common Paper)

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Write note on partition ratio.
2. Explain equivalent and non-equivalent protons.
3. Write note on Fermi resonance.
4. Explain about chromophore with example.
5. Explain ^{1}H NMR spectrum of ethyl acetate.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) i) Explain the principle of Gas Chromatography.
      ii) Write about fluorescence detector.
                        (OR)
   b) i) Discuss the classification of chromatographic techniques.
      ii) Explain the terms: Retention time and Capacity factor.

7. a) i) Discuss pulse Fourier Transformation (PFT) method.
      ii) Explain anisotropic effect in ethylene.
                        (OR)
   b) i) Discuss the application of ^{1}H NMR to study reaction mechanism.
      ii) Explain the proton exchange process.

8. a) i) Explain about rotational and vibrational Raman spectra.
      ii) Explain isotopic effect on group frequency.
                        (OR)
   b) i) Explain IR spectrum of metal coordinated CO_3^{-2} ion.
      ii) Explain the origin of strokes and anti-strokes lines.

9. a) i) Explain various types of electronic transitions in UV spectroscopy.
      ii) Discuss the effect of solvent on absorption maxima (λ_{max}).
                        (OR)
   b) Calculate the UV absorption maxima (λ_{max}) for the following molecules.
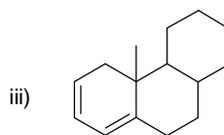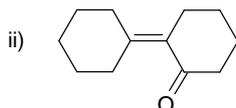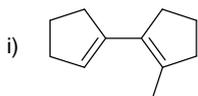
10. a) i) Write note on plate theory.
       ii) Explain spin-spin couplings.
                        (OR)
    b) i) Explain the modes of vibrations.
       ii) Discuss the Beer's law application to dissociation constant of weak acid.

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FACULTY OF SCIENCE

M.Sc. (PHYSICS/PE) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017

ELECTRONICS-I

PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all the following questions from Section – A and Section – B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Enumerate the differences between BJT and FET.
2. Explain briefly about voltage regulators.
3. Discuss the working of Darlington pair.
4. What is the need of modulation in communication? Explain.
5. Explain the operation of clipping circuit.

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Write a note on transistor configurations. Explain the construction and the characteristics of transistor in CE configuration with necessary diagram.
   (OR)
   b) Explain the construction and characteristics of a tunnel diode with a neat diagram.

7 a) What is wave shaping? Explain the construction and working of differentiator with necessary diagrams.
   (OR)
   b) What is biasing of a transistor? Explain the method of self-bias for a transistor and discuss its merits over other methods.

8. a) Discuss the conditions for oscillations. Explain operation of Phase shift oscillator and derive the expression for frequency of oscillation.
   (OR)
   b) Write a note on classification of multivibrators and explain the construction and working of Astable multivibrator.

9. a) Discuss the frequency spectrum of AM wave. Explain the construction and working of square-law detector of AM signals with a neat circuit.
   (OR)
   b) Enumerate the differences between AM and FM. Explain the construction and working of FM discriminator with necessary diagram.

10. a) Discuss the classification of oscillators. Explain the operation of Hartley oscillator and derive the expression for frequency of oscillations.
    (OR)
    b) Explain the construction and working of SCR with a necessary diagram.

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FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ELEMENTARY NUMBER THEORY
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Define divisibility and prove n/n (Reflective).
2. Define Euler-Totient function and find $\emptyset(1), \emptyset(2), \emptyset(3), \emptyset(4)$ values.
3. Prove that congruence is an equivalence relation.
4. Define Legendre symbol.
5. Define multiplicative function.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Let a, b, d, m, n are denote the arbitrary integers then prove that:
   i) $d/n \ and \ n/m \Rightarrow d/m \ (transitive)$
   ii) $d/n \ and \ n/m \Rightarrow d/am + bm \ (linear \ property)$
   iii) $d/n \Rightarrow ad/an \ (where \ a \neq 0)$
   iv) a$d/an \ and \ a \neq 0, then \ d/n$
   (OR)
   b) Prove that every integer n > 1 is either a prime number or a product of prime numbers.

7. a) State and prove Mobius inverse formula.
   (OR)
   b) If f, g are multiplicative functions, then prove that their Dirichlet multiplication f $*$g is also multiplicative function.

8. a) State and prove Wieson's theorem.
   (OR)
   b) State and prove Chainese Remainder theorem.

9. a) State and prove Euler's criteria.
   (OR)
   b) Legender's symbol $\left(\frac{n}{p}\right)$ is completely multiplicative function. Prove on 'n'.

10. a) State and prove Little Fermat's theorem.
    (OR)
    b) Find the remainder when $(4444)^{4444}$ divided by 9.

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FACULTYOF SCIENCES
M.Sc. (Zoology) I – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
TAXONOMY, SYSTEMATICS AND FUNCTIONAL ANATOMY OF INVERTEBRATES
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Prokarya
2. Poly embryo
3. Social Insects
4. Oxychophora
5. Species Concept

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Define Symmetry, Coelom and Metamerism. Comment on their significance in classification.

(OR)

   b) Write an essay on recent trends in biosystematics and comment on molecular taxonomy.

7. a) Describe the life cycle and modes of transmission of Diphylobothrium latum.

(OR)

   b) Give the structure and function of locomotary organs in protozoans.

8. a) Write about the types of shells in different molluscan classes.

(OR)

   b) Explain filter feeding mechanism in polychaetes.

9. a) Give the general organization and affinities of Bryozoa.

(OR)

   b) Write about the systematic position and affinities of Hemichordata.

10. a) Write a note on Canal System in Sycon.

(OR)

    b) Explain respiration in mollusca.

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FACULTY OF SCIENCE
M.C.A. I – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ELEMENTS OF INFORMATION TECHNOLOGY

PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Define Software? Explain types of software.
2. What is Compression and Decompression?
3. Write about www.
4. Differentiate between FMS and DBMS.
5. What are the three levels of Management? Explain.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Explain about (i) Object Oriented Programming (ii) Visual Programming.
   (OR)
   b) Write about any two Operating Systems.

7. a) Explain about Printers and Plotters.
   (OR)
   b) What are the Parts of Micro Computer System Unit? Explain.

8. a) Differentiate between Internet and Intranet?
   (OR)
   b) Define Network? Explain different topologies of Network.

9. a) What are the different types of Database Organization? Explain.
   (OR)
   b) Explain different types of Application Softwares?

10. a) What are the threats to Computers and Communication?
    (OR)
    b) Explain Programming as a Five Step Procedure.

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FACULTYOF SOCIAL SCIENCES
PG/B.L.I.S. I – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
INFORMATION PROCESSING (PRACTICE-I)
LIBRARY CLASSIFICATION
PAPER – IV

Time: 3 Hours]   [Max. Marks: 100

Note: Classify any twenty of the following titles according to **DDC-20th Edition**

All titles carry equal marks

(5x20=100)

1. Libraries for Children
2. German-French Dictionary
3. Psychology of Special education
4. Animal husbandry
5. History of Medicine
6. Human Anatomy
7. Curriculum
8. Foreign Policy of Srilanka
9. Economic Condition in India
10. Birds of Antarctica
11. Jainism
12. Election law of India
13. Library Cataloguing
14. Pathology of Rose Plants
15. Treatment of gastric ulcers
16. Copper
17. Sheep wool
18. Iconography
19. Preservation of Rugs and Carpets
20. English short stories of early 20th century
21. Astronomy
22. International Commerce
23. Aves
24. Travel in Ancient India
25. French Poems
26. Botanical gardens in the USA
27. Japanese Cooking
28. Journal of Mathematics
29. Cardiovascular disease
30. Universal Decimal Classification

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FACULTY OF SOCIAL SCIENCES
M.A. (APE: 5-YIPGP) V – SEMESTER REGULAR EXAMINATIONS, DEC-2017
INDIAN ECONOMY - I
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Commercialization of agriculture.
2. Mineral resources.
3. Food security.
4. Exit policy.
5. Access to health care.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6. a) Critically examine the process of industrialization.
                        (OR)
    b) Analyze the economic consequences of the colonial rule.

7. a) Explain structure of Indian economy.
                        (OR)
    b) Explain theory of demographic transition.

8. a) Explain impact of green revolution on production and productivity of agriculture.
                        (OR)
    b) Explain terms of trade between agriculture and industry and its implications.

9. a) Critically examine the impact of new industrial policy.
                        (OR)
    b) Explain causes and consequences of industrial sickness.

10. a) Critically analyze the determinist of migration.
                        (OR)
    b) Explain people's access to productive distribution across rural.

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FACULTY OF SCIENCE
M.Sc. (PCH-5YIPGP) V-SEMESTER REGULAR EXAMINATIONS, DEC-2017
MOLECULAR TARGETS AND SIGNAL TRANSDUCTION
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all the following questions from Section-A and Section-B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** pages each:

1. Write a note on acetylcholine receptors?
2. Explain the role of dihydrofolate reductase enzyme in targeting cancer cells.
3. Write a note on chloride ion channels and their significance.
4. Define the terms uniporters, symporters and antiporters with examples?
5. Explain how immunoglobulins and TNF will be used as drug targets.

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6 a) Explain about signal transduction and pharmacological characteristic features of various adrenergic receptors.

(OR)

   b) Explain briefly about signal transduction and characteristic features of dopamine receptors.

7 a) Explain about role of topo isomerases, DNA polymerase and DNA gyrase in cancer proliferation.

(OR)

   b) Explain about role of Mono amino oxidase and DOPA decarboxylase in CNS disorders.

8 a) Explain about various sodium and potassium channels and their role in cardio vascular functions.

(OR)

   b) Write a note on
      i) Rynodyne receptors   ii) Calcium channels.

9 a) Explain briefly about proton pump and its significance.

(OR)

   b) Describe briefly about drug action by various physic chemical mechanism with examples?

10 a) Explain how multi targeting strategy is useful in Alzheimer's disease and cancer.

(OR)

   b) Write a note on the following;
      i) Nucleic acids as drug targets.
      ii) Ribosomes as drug targets.

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FACULTY OF SCIENCES
MCA V – SEMESTER REGULAR EXAMINATIONS, DEC -2017
ELECTRONIC - COMMERCE

PAPER – IV (a)

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. Write about E-Commerce Consumer Applications.
2. What are the types of Electronic Payment Systems?
3. What is Electronic Data Interchange?
4. What are the types of Digital Documents?
5. What is Information Filtering?

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) Explain the E-Commerce Framework.

(OR)

   b) Explain Mercantile Models from the Consumer's Perspective and Mercantile
       Models from the Merchant's Perspective.

7. a) Explain Digital Token Based Electronic Payment Systems.

(OR)

   b) Explain Credit Card Based Electronic Payment Systems.

8. a) Explain the legal, security and privacy issues in Electronic Data Interchange.

(OR)

   b) Write about Work Flow Automation and Co-ordination.

9. a) Discuss the issues behind Document Infra Structure.

(OR)

   b) Explain Information based marketing.

10. a) Discuss various emerging tools in consumer Data Interface.

(OR)

   b) Explain Desktop Video Processing and Desktop Video Conferencing.

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FACULTY OF SCIENCES
MCA V – SEMESTER REGULAR EXAMINATIONS, DEC -2017
SOFTWARE REUSE TECHNIQUES

PAPER – IV (b)

Time: 3 hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

Section – A

Answer the following questions in not more than **ONE** page each: (5x4=20)

1. What are object components? Give an example.
2. Write briefly about Builder Prototype.
3. Write short notes on 'Façade' Structural Pattern.
4. Write short notes on 'Master-Slave' Design Pattern.
5. Explain briefly about 'broker' architectural pattern.

Section – B

Answer the following questions in not more than **FOUR** pages each: (5x10=50)

6. a) List the basic principles to be followed to achieve systematic software reuse.
   (OR)
   b) Write elaborately about the significance of elements of software reuse.
   c) What are use case components? Explain about their importance in SE.

7. a) Distinguish between Factory method pattern and Abstract Factory. Write also about the implementation issues of Factory method pattern.
   (OR)
   b) Write in detail about Creational Pattern with examples.
   c) Discuss about Singleton.

8. a) Discuss in detail about Composite and Decorator structural patterns.
   (OR)
   b) Write elaborately about any two behavioral patterns.

9. a) Discuss about the essential features of mediator behavioral pattern.
   (OR)
   b) Distinguish between template pattern and visitor pattern from the view point of motivation and applicability.

10. a) Write about importance of Architectural Patterns. List all the types and elaborate any two of them.
    (OR)
    b) List and briefly explain the advantages and disadvantages in Pipes and Filters.
    c) Discuss the process of implementing a blackboard pattern.

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FACULTYOF BUSINESS MANAGEMENT
IMBA V – SEMESTER REGULAR EXAMINATIOS, DEC- 2017
BUSINESS ETHICS AND VALUES
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Section – A   (5x3=15)

Answer any five of the following question in not more than **ONE** page each

1. a. Discipline.
    b. Business Ethics.
    c. Agency Theory.
    d. Value System.
    e. Ethical Behaviour.
    f. Social Responsibility.
    g. Role of Auditors.
    h. Indian Ethos.

Section – B   (5x8=40)

Answer the following questions in not more than **FOUR** pages each:

2. a) 'Ethics as a Management Discipline'. Discuss in detail.

    (OR)

    b) Write about the principles of modern ethical programme in business.

3. a) Write about the concept of Social Responsibility of Business and discuss the Responsibilities towards Customers.

    (OR)

    b) Discuss the arguments for and against Social Responsibilities of Business.

4. a) Discuss the Stewardship theory in detail.

    (OR)

    b) Write about the Role of directors and non executive directors towards Corporate Governance.

5. a) What do you understand by Human Values? Discuss about self introspection & Self Esteem.

    (OR)

    b) Explain Values in Business Management and Managerial Excellence through values.

6. a) Write in detail about the Professional Values and its impact on Business.

    (OR)

    b) Write about the Business Law and Ethical Behaviour.

Section – C (Compulsory)   (1x15=15)

Amit Suri was asked to represent his department at the Benefits Committee meeting. The purpose of the meeting was to announce changes in the company's home loan schemes. Amit and the others meeting his department were unanimous in their support of the OTP (One-time-payment) scheme. But he knew that there were some in the other departments who favored the MIP (Monthly-installment-payment) scheme. He walked into the room, hoping the OTP scheme would be adopted.

The head of the committee entered the room, walked up to the podium, put his papers in front, an began to speak.

"I know you are all here to learn about our new home loan scheme, and I won't keep you suspense. We have decided that the MIP scheme will be our primary scheme.

As he continued to talk, Amit fumed. As soon as the meeting ended, he rushed back to department with the news. Everyone was upset.

What do you think happened in this case? Amit was present throughout the meeting yet, he didn't really hear what the speaker was saying. Why?

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FACULTY OF SOCIAL SCIENCES
M.A. (APE: 5-YIPGP) VII – SEMESTER REGULAR EXAMINATIONS, DEC-2017
PUBLIC ECONOMICS -I
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Public finance.

2. Public choice.

3. Stabilisation policy.

4. Cost benefits analysis.

5. Ability to pay approach.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6.   a) Discuss the role of state in a mixed economy.
                    (OR)
        b) Distinguish between public and private sector.

7.   a) Discuss the economic theory of democracy.
                    (OR)
        b) Distinguish between preference revelation and aggregation of preferences..

8.   a) Discuss Public Policy. How allocation of reasons for public goods.
                    (OR)
        b) Explain demand revealing schemes for public goods.

9.   a) Analyse the principle of maximum social advantage.
                    (OR)
        b) Examine the effects of public expenditure.

10.   a) Explain the impact of VAT in India.
                    (OR)
        b) Discuss the importance of elasticity and Buoryancy of taxation.

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FACULTY OF SCIENCE
M.Sc. (PCH-5YIPGP) VII-SEMESTER REGULAR EXAMINATIONS, DEC-2017
SPECTROSCOPIC TECHNIQUES
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all the following questions from Section-A and Section-B

Section – A   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Sketch the proton undecoupled ^{13}C-NMR Spectrum of $^{13}CH_2Br$-$^{12}CHCl_2$.
2. Write the principle involved in DEPT.
3. Sketch the contour or stacked 2D NMR spectrum of C_2H_5Cl.
4. State and explain Koopmans's theorem.
5. Explain how $\Pi \rightarrow \Pi^*$ and $n \rightarrow \Pi^*$ transitions can be identified from uv-visible spectrum.

Section – B   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6   a) i) What are the factors that influence the magnitude of ^{13}C chemical shift? Give examples.
       ii) Explain how ATP experiment distinguishes CH, CH_2, CH_3 and quaternary carbons.
                                        (OR)
    b) i) Sketch the off-resonance decoupled ^{13}C NMR spectrum of 1-propanol dissolved in $CDCl_3$, and explain the splitting pattern.
       ii) Describe the PFT technique and write its advantages.

7   a) i) Sketch the 2D COSY and 2D hetero COSY of ethanol and explain the relationship between diagonal and off-diagonal peaks.
       ii) Describe the ESR spectrum of t-butyl redical and naphthalene radical. Explain the splitting pattern.
                                        (OR)
    b) i) What is the principle involved in NOESY?
       ii) What additional information can be obtained from NOESY compared to COSY. Describe the NOESY of acetanilide and confirm its conformation.

8   a) i) Describe the PE spectrum of a simple molecule such as N_2.
       ii) Show that for bcc lattice the intensity from (100) planes is zero.
                                        (OR)
    b) i) Write the wierl equation and explain the terms present in it.
       ii) What are overtones and combination bands? What is the relationship between overtones and fundamental bands?

9   a) i) Describe the mass spectral fragmentation of $Re_2Cl_2(CO)_8$.
       ii) What are the applications of GC-FT-IR?
                                        (OR)

                                                              P.T.O

b) i) What is axial halo ketone rule? What is its application?
   ii) Explain how uv spectroscopy is useful for quantitative analysis of a compound.

10 a) i) Explain with an example how ^{13}C NMR Spectroscopy is useful in the determination of reaction mechanism.
   ii) What is the principle involved in ENDOR?

(OR)

b) i) Sketch the vibration-rotation spectrum of a diatomic molecule showing P, Q, R branches.
   ii) Explain how ORD is useful in the study of conformation of organic molecules.

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FACULTYOF BUSINESS MANAGEMENT
IMBA VII – SEMESTER REGULAR EXAMINATIONS, DEC 2017
BUSINESS COMMUNICATION
PAPER – IV

Time: 3 Hours]   [Max. Marks: 50

Note: Answer all questions from Section – A & B

<u>Section – A</u>   (5x2=10)

Answer the following questions in not more than **ONE** page each:

1. Communication Process.
2. Written Communication benefits.
3. Skimming.
4. Interview.
5. Personality.

<u>Section – B</u>   (5x8=40)

Answer the following questions in not more than **FOUR** pages each:

6. a) Explain about communication, its importance and objectives.

(OR)

   b) Discuss the barriers of effective communication and techniques of effective communication.

7. a) Write about Oral Communication. Write the barriers and principles of effective oral communication.

(OR)

   b) Brief Non-Verbal Communication. Write in detail various types of non verbal communication.

8. a) What do you understand by Business Letter. Explain any two types of Business Letters.

(OR)

   b) What is a Case? Write how to overcome the difficulties of case methods.

9. a) Write about your CV in detail.

(OR)

   b) Discuss about the types and preparation process of Interviews.

10. a) What do you understand by Personality Development. Discuss in detail the various factors affecting personality development.

(OR)

   b) What is meant by Stress? Write in detail the various stress management techniques.

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FACULTY OF SOCIAL SCIENCES
M.A. (APE: 5-YIPGP) IX – SEMESTER REGULAR EXAMINATIONS, DEC-2017
AGRICULTURE ECONOMICS
PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Modernization of agriculture.

2. Labour absorption.

3. Marketable surplus.

4. Sustainable agriculture.

5. Agricultural exports.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6.   a) Explain the nature and scope of agricultural economics.
                        (OR)
      b) "Rural credit policy an important role in agriculture development". Discuss.

7.   a) What is the relationship between resource use and efficiency on productivity in
          Agriculture?
                        (OR)
      b) Examine the significance and advantages of mechanization of Indian agriculture.

8.   a) Discuss the role of regulated markets in marketing agriculture produces.
                        (OR)
      b) What are the problems of agriculture marketing in India?

9.   a) Describe the regional variations in the growth of agricultural output and productivity
          in India.
                        (OR)
      b) Discuss the impact of reduction of agricultural subsidies and public
          investments on agriculture growth.

10. a) Discuss the impact of WTO on Indian agriculture.
                        (OR)
      b) What are the problems of Indian agriculture in the era of globalization?

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FACULTY OF SCIENCE

M.Sc. (PCH-5YIPGP) IX-SEMESTER REGULAR EXAMINATIONS, DEC-2017

NATURAL PRODUCTS AND PHOTO CHEMISTRY

PAPER – IV

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all the following questions from Section-A and Section-B

<u>Section – A</u>   (5x4=20)

Answer the following questions in not more than **ONE** page each:

1. Write general methods in the structure determination of Terpenes.

2. Write the importance and concept of Bile acids.

3. Explain general methods of structure elucidation of carotenoids.

4. Write a short note on Cis-Trans isomerisation with examples.

5. Explain photo oxygenation reaction with example.

<u>Section – B</u>   (5x10=50)

Answer the following questions in not more than **FOUR** pages each:

6 a) Write the structure determination and synthesis of camphor.

(OR)

   b) Write the structure determination and synthesis of Quinine.

7 a) Write the structure elucidation of Ergosterol.

(OR)

   b) Write the structure elucidation of Arbutin.

8 a) Write the structure elucidation of Vit-A.

(OR)

   b) Write the structure elucidation of caffeine.

9 a) i) Explain the Joblonski diagram in photo chemistry.
       ii) Explain the Paterno-Buchi reaction.

(OR)

   b) i) Explain the Di-π-methane rearrangement with example.
       ii) Explain the Ene-reaction with example.

10 a) Explain Barton reaction with example.

(OR)

   b) Write the structure elucidation and chemistry of Ephedrine.

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