FACULTY OF SCIENCE AND SOCIAL SCIENCES
M.A. (APE), M.Sc. (PCH) & IMBA III – SEMESTER REGULAR EXAMINATION, DEC- 2017
ENGLISH LANGUAGE - III
PAPER – I

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A and Section – B
<u>Section – A</u>   (5x4=20)

Answer any *five* questions from the following.
1. a) She is _____the committee.
    b) The criminal is sentenced_____death.
    Write synonyms of the words given below.
    c) shrewd
    d) jutka
2. Supply suitable conjunctions.
    a) Do not eat____I come.
    b) He has won the pride_____he deserved it.
    Write synonyms of the words given below.
    c) outcast
    d) tussle
3. Change the voice.
    a) She had brought a basket.
    b) They can lift it.
    Write antonyms to the following.
    c) dead
    d) bride
4. Change into Reported speech.
    a) He said "I am unwell".
    b) She says "I like Sweets".
    Write antonyms to the following.
    c) drab.
    d) spiteful.
5. Supply suitable adjectives.
    a) She is the _____ of the two. (tallest/tall/taller)
    b) He is _____ than I. (strong/strongest/stronger)
    Answer the following.
    c) She speaks Tamil_____Urdu. (beside/besides)
    d) He is a member in _____. (council/counsel)
6. Supply suitable adjectives.
    a) It is the _____. (more interesting/ Interesting/most interesting)
    b) It is the _____idea. (worse/worst/bad)

P.T.O

Answer the following.

   c) This is an _____ condition (adverse/averse)

7. Write phonetic transcription for the following past tense form of verbs

   a) watched

   b) kings

Answer the following.

   c) She is a_____woman. (weak/week)

   d) I have bought a _____ (sight/site/cite)

8. Identify and write number of syllables for the following.

   a) pack

   b) elephant

Punctuate the following.

   c) He merely said let me have a dollar will you and I said is a dollar enough I believe in fact I know

   d) Where does she go mother said to me I said I do not know

<div align="center">Section – B   (5x10=50)</div>

Questions from 9 to13 will have internal choice. Students can answer either a (or) b.

9. a)1) How did the astrologer convince Guru Nayak about his future?

   2) Read the passage carefully and answer the questions that follow.

   Telangana is home to many architectural marvels of national importance. It owes a lot to the Chalukyas and the Kakatiyas for the development of art and architecture in the region. It has monuments such as the Thousand Pillars Temple, Alampur Temples, Ramappa Temple and many others. Hyderabad, the capital of Telangana, has many monuments that reflect our culture and historic background of the city.

   Answer the following questions

   1. What does the passage speak about?

   2. What are the two dynasties that talked about?

   3. What is meant by the word, 'monument'?

   4. Write antonym of the word, 'important'?

   5. What is the adjective form of 'development'?

   6. What part of speech is the word, 'region'?

<div align="center">(OR)</div>

b)1. Annotate the following.

   The clothes after the Bombay cut that I was wearing were, I thought, unsuitable for English society, and I got new ones at the Army and Navy Stores.

   2. Read the passage carefully and answer the questions that follow.

   M.S Swaminathan (born 7 August 1925) is an Indian geneticist and international administrator, renowned for his leading role in India's Green Revolution, a program under which high-yield varieties of wheat and rice seedlings were planted in the fields of poor farmers. Swaminathan is known as "Indian Father of Green Revolution" for his leadership and success in introducing and further developing high-yielding varieties of wheat in India.

   1. Who is talked about in the passage?

<div align="right">P.T.O</div>

   2. What is he known as?
   3. What did he introduce?
   4. What is Green Revolution?
   5. What is meant by the word, 'revolution'?
   6. What part of speech is the word, 'renowned'?
10. a) 1) Describe the political background and significance of the poem, 'In the Bazzars of Hyderabad'.

   2. Read the passage carefully and answer the questions that follow.

Food is the component of every culture. The traditional food of Telangana is rooted deeply in its culture. Being a semi-arid state, the staple food in Telangana is not rice but millet. As a result, the population consumes various kinds of millets. They are used to make wholesome and rustic flat breads such as Jonna rotte and Sajja rotte, which are usually accompanied by spicy curries.

   1. What does the passage speak about?
   2. How many flat types of bread are talked about?
   3. What is meant by the word, 'staple'?
   4. Write part of speech of the word, 'traditional'.
   5. Write the adjective form of 'culture'.

(OR)

   b) 1) Annotate the following.

   Mirrors with panels of amber, daggers with handles of jade.

   2. Read the passage carefully and answer the questions that follow.

 Mulk Raj Anand (born December 12th , 1905-2004) is a prominent Indian author of novels, short stories and critical essays in English known for his realistic and sympathetic portrayal of the poor in India. He is considered a founder of the English - Language Indian novel. A prolific writer, Anand gained wide recognition for his novels. His creative career spanning a period of more than 75 years has been inextricably intertwined with the search for just, equitable and forward-looking India.

   1. Who does the passage speak about?
   2. What is he known for?
   3. What is meant by the word, 'prominent'?
   4. Write the adjective form of 'realistic'.
   5. Write antonym of the word, 'just'.
   6. What part of speech is the word, 'prolific'?
11. a) 1) What kind of a picture evolves about the family background of the Rowlands?
   2) Write six words, each with two consonant clusters in the beginning of a syllable.

(OR)

   b) 1) Annotate the following.

   There I know you'd cut yourself. It'll be a lesson to you.

   2) Write six words, each with two consonant clusters at the end of a syllable.

12. a) 1)What is Newton's contribution to the world of science?

2) Mark 'Stress' for the following.

1. station   2. operation   3. refugee

4. capacity   5.saloon   6. coffee

(OR)

b) 1) Annotate the following.

The neighbors looked with vast admiration at the things which Isaac manufactured.

2) Write a meaningful dialogue between two friends who met after a long time.

13. a) 1)Write an Argumentative essay on 'Is there a necessity for dress code in college'?

2) You have left your city to take admission in a college in another city. When you reach there you learn that you have left some crucial documents. How will you solve the problem?

(From 'problem solving')

(OR)

b) 1) Write an expository essay on 'Fast Food and Lifestyle' diseases.

2) Early bird catches the worm.

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FACULTYOF ARTS
M.A. (ENGLISH) III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
AMERICAN LITERATURE - I
PAPER – I

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. Brief note on the rise of the American Puritanism.
2. Sketch the character of Yank.
3. Concept of betrayal in *The Death of a Salesman*.
4. Discuss the theme in *"On Being Brought from Africa to America"*.
5. How according to Emerson, does the mind of the past influence the spirit of the scholar?

Section – B   (5x10=50)

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

6. a) Discuss the American Renaissance.
   (OR)
   b) Write an essay on American Transcendentalism.

7. a) Discuss the Theme of Death and Religion in Emily Dickenson's works.
   (OR)
   b) Critically appreciate the style, structure and the diction used by Walt Whitman in his poems.

8. a) Portray the character of Hester Prynne in *The Scarlet Letter*.
   (OR)
   b) Comment on Huckleberry Finn as the protagonist of the novel *The Adventures of Huckleberry Finn*?

9. a) Bring out the O'Neill's *The Hairy Ape*.
   (OR)
   b) How are the characters influenced by the social milieu in Miller's *The Death of a Sales Man*?

10. a) What are the main duties of the *The American Scholar* that Emerson mentions in the speech?
    (OR)
    b) Discuss Thoreau's view "That government is best which governs least".

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FACULTY OF ARTS
M.A. (HINDI) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
BHASHA VIGYAN
PAPER – I

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. भाषा परिवर्तन के बाह्य कारण कौन–कौन से हैं?
2. भाषा विज्ञान की पांच पारिभाषाऐं दीजिए ।
3. ध्वनि–यंत्र की चित्र बनाते हुए उसके विभिन्न अंगों के कार्यो का वर्णन कीजिए ।
4. शब्द व पद का परिभाषा देते हुए इन दोनों का अंतर स्पष्ट कीजिए ।
5. वाक्य की परिभाषा व प्रकारों का वर्णन कीजिए ।

Section – B

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

6. a) भाषा पारिवर्तन के आंतारिक कारणों की चर्चा कीजिए ।
   (OR)
   b) भाषा के आकृतिमूलक वर्गीकरण कीजिए ।

7. a) भाषा विज्ञान के भारतीय–इतिहास के स्पष्ट कीजिए ।
   (OR)
   b) भाषा– विज्ञान का अन्य विज्ञानों से संबंध स्पष्ट कीजिए ।

8. a) स्वर व व्यंजन का वर्गीकरण कीजिए ।
   (OR)
   b) ध्वनि परिवर्तन के कारणों की चर्चा कीजिए ।

9. a) रूप परिवर्तन के कारणों को सोदाहरण बताइए ।
   (OR)
   b) संरुप क्या है? उसके नियमों की चर्चा कीजिए ।

10. a) अर्थ परिवर्तन की दिशाओं की चर्चा कीजिए ।
    (OR)
    b) अर्थ परिवर्तन के कारणों पर सोदाहरण लेख लिखिए ।

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FACULTYOF SOCIAL SCIENCES
M.A (Mass Communication) III– SEMESTER REGULAR EXAMINATIONS, DEC-2017
COMMUNICATION THEORY AND INTERNATIONAL COMMUNICATION
PAPER – I

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. Need for communication.
2. Mass communication and culture
3. Advertising
4. Globalization
5. Satellites

Section – B   (5x10=50)

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

6. a) Explain about the need for communication theories.
                              (OR)
    b) Write about the concept of mass society.

7. a) Write about the mass communication and culture and different perspectives.
                              (OR)
    b) Explain about the gender issues and mass media.

8. a) Why there are communication imbalances and the domination of developed countries.
                              (OR)
    b) Third World Countries/developing countries demand for right share in international
       communication: Comment.

9. a) What is the concept of globalization and its impact on communication.
                              (OR)
    b) What is international communication and write about international news agencies.

10. a) Write about the role of satellites in the promotion of international communication.
                              (OR)
    b) Explain about the information exchange and write about South Asian Association for
       Regional Cooperation (SAARC).

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FACULTY OF ARTS
M.A.(TSD) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
MODERN POETRY
PAPER – I

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. ఆధునిక కవిత్వంపై పాశ్చాత్య ప్రభావం.

2. భావ కవిత్వంలో అభ్యుదయ చైతన్యం.

3. అరసం.

4. నిబద్ధత – నిమగ్నత.

5. దిగంబర కవులు – పరిచయం.

Section – B

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

6. a) ఆధునిక తెలుగు కవిత్వ యుగకర్త ఎవరు? చర్చించండి.
    (లేదా)
    b) ఆధునిక కవిత్వ ఆవిర్భావం, హేతువులను వివరించండి.

7. a) భావ కవిత్వ నేపథ్యం, లక్షణాలను తెలుపండి.
    (లేదా)
    b) భావ కవితా వికాసం, పరిసమాప్తికి గల కారణాలను విశదీకరించండి.

8. a) అభ్యుదయ కవిత్వ ఆవిర్భావ నేపథ్యం, లక్షణాలను వివరించండి.
    (లేదా)
    b) అభ్యుదయ కవిత్వ వికాసాన్ని, ప్రభావాన్ని వివరించండి.

9. a) దిగంబర కవిత్వ నేపథ్యం, ప్రయోజనాలను తెలుపండి.
    (లేదా)
    b) తెలుగు సాహిత్యంపై విప్లవ కవిత ప్రాధాన్యం, ప్రభావాలను చర్చించండి.

10. a) ఆధునిక కవిత్వంలో స్త్రీవాద కవిత్వ ప్రాధాన్యత ప్రభావాలను విశ్లేషించండి.
    (లేదా)
    b) బహుజన వాద కవిత్వంలోని దృక్పథాలను పరిశీలించండి.

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FACULTY OF ARTS
M.A. (URDU) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
TANQEED WO TAHQEEQ
PAPER – I

Time: 3 hours]

[Max. Marks: 70

نوٹ:۔ حصہ 'الف' اور حصہ 'ب' کے تمام سوالات کے جواب مطلوب ہیں۔

(5×4=20)   [حصہ 'الف']

نوٹ:۔ تمام سوالات کے جواب مطلوب ہیں۔ جواب ایک صفحے سے زائد نہ ہو۔

1 ۔ تنقید کی تعریف کرتے ہوئے معنیٰ و مفہوم واضح کیجیے۔

2 ۔ تدوینِ متن کسے کہا جاتا ہے۔ اظہارِ خیال کیجیے۔

3 ۔ حالیاتی تنقید پر مختصر نوٹ لکھیے۔

4 ۔ تحقیق کے لیے مواد کی فراہمی کے مختلف ذرائع بیان کیجیے۔

5 ۔ افلاطون کے تنقیدی نظریات پیش کیجیے۔

[5×10=50]   [حصہ 'ب']

نوٹ:۔ تمام سوالات کے جواب مطلوب ہیں۔ ہر سوال چار صفحات سے زائد نہ ہو۔

6 ۔ تحقیق و تنقید کا رشتہ بتاتے ہوئے ادب پارے میں ان کی اہمیت اجاگر کیجیے۔

۔ یا ۔

"مارکسی تنقید" کسے کہا جاتا ہے دلیلوں سے واضح کیجیے۔

7 ۔ "اسلوبیاتی تنقید" سے کیا مراد ہے۔ اظہارِ خیال کیجیے۔

۔ یا ۔

تنقید کے جدید رجحانات و تصورات سے متعلق اپنے خیالات کا اظہار کیجیے۔

P. T. O.

۸- حالی اور شبلی کی تنقید نگاری کا تقابلی جائزہ پیش کیجیے ۔ !

یا

میتھو آرنالڈ کے تنقیدی تجربات کا تفصیلی جائزہ لیجیے ۔؟

۹- شمس الرحمن فاروقی کے تنقیدی افکار بیان کیجیے ۔؟

یا

ارسطو کے تنقیدی تجربات پر روشنی ڈالیے ۔؟

۱۰- احتشام حسین کی تنقید میں "مارکس" اور "اشتراکی" تنقید کے نمونے ملتے ہیں ۔ اس خیال سے آپ کس حد تک متفق ہیں ۔؟

یا

کلیم الدین احمد مغربی ادب سے متاثر رہے اور مشرقی ادب کی پرزور مخالفت کی ۔ بحث کیجیے ۔

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FACULTY OF SOCIAL SCIENCES
M.A. (ECONOMICS) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ECONOMETRICS - I
PAPER – I

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. Define the concept of "Unbiasedness".
2. Enumerate the Multiple Regression.
3. State the Bunch-Map Analysis.
4. Explain the sources for the problem of Errors in Variables.
5. State the Logit Model.

Section – B

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

6. a) "Econometrics deals with the measurement of economic relationship"- Comment.
    And explain the significance of econometrics in the present day world.
    (OR)
    b) Setup two variable linear models with usual assumptions, explain the significance
    of assumptions.

7. a) Examine the Multiple Regression Model.
    (OR)
    b) Interpret the results of the following multiple regression co-efficient and state
    which of the estimated co-efficient are individually statistically significant.
    $$\hat{y}_i = 6.421 + 0.365x_{1i} + 0.003x_{2i} + 2.501x_{3i}$$
    $$(1.109) \quad (0.060) \quad (0.050) \quad (0.621)$$
    $R^2 = 0.873; df = 14$ (Figures in Parentheses Indicate Standard Errors).

8. a) Analyse the problem of auto-correlation in this content, explain the significance of
    Durbin-Watson Test.
    (OR)
    b) Define Multicolinearity and examine the causes and consequences of multi-co
    linearity.

9. a) Examine the problem of heteroscedasticity. How do you test for it?
    (OR)
    b) Enumerate the problem of errors in variables and state how do you estimate the
    parameters of liner model in the presence of errors in variables.

10. a) Explain how you would use dummy variables for generating predictions form a
    regression model.
    (OR)
    b) Elucidate the Stability of Regression Model.

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FACULTY OF SOCIAL SCIENCES
M.A. (Political Science) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
ANCIENT AND MEDIEVAL INDIAN POLITICAL THOUGHT
PAPER – I

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. Gana
2. Mann's Classification of the Society
3. Bakti Cult
4. Significance of Medieval Indian Thought
5. Koutilya's views on Spy System

<u>Section – B</u>　　　　　　　　　　　(5x10=50)

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

6. a) Explain the general characteristics of Dharma.
　　　　　　　　　　(OR)
　 b) Describe the meaning and nature of Janapadas in Ancient India.

7. a) Write an essay on the Buddhist Political Ideas.
　　　　　　　　　　(OR)
　 b) Explain the Contribution of Charvaka to Ancient School of Indian Materialism.

8. a) Write an essay on Manu's Concept of Varnadharma.
　　　　　　　　　　(OR)
　 b) Evaluate Koutilya's Contribution to Ancient Indian Political Thought.

9. a) Assess the role of Anubhava Mantapa in the Promotion of Human Rights.
　　　　　　　　　　(OR)
　 b) Examine Ziauddin Barani's Contribution to Islamic Political Thought.

10. a) Critically Examine the impact of Sufi Movement on Indian Society.
　　　　　　　　　　(OR)
　 b) Define Bhakti and explain the consequences of Bhakti Movement.

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FACULTY OF SOCIAL SCIENCES
M.A. (Public Admn.) III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
RURAL DEVELOPMENT AND PANCHAYAT RAJ
PAPER – I

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. Decentralization
2. Gram Sabah
3. V.R.O.
4. I. T.D.A.
5. M.P.D.O.

<u>Section – B</u>   (5x10=50)

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

6. a) Explain the Democratic decentralization in India.
                        (OR)
    b) Discuss Rural Development Policies in India.

7. a) Write about Balwanth Raj Mehtha Committee Recommendations.
                        (OR)
    b) Discuss main features of 73rd Constitutional Amendment Act, 1992.

8. a) Examine the working of Co-operatives in India.
                        (OR)
    b) Discuss the Role of SHG's in Rural Development.

9. a) Write a note on IRDP and SJRY.
                        (OR)
    b) Discuss the role of stake holder committees in Village Administration.

10. a) Discuss the Implementation of Land Reforms in India.
                        (OR)
    b) Examine the Role of Class and Gender in Rural Governance.

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FACULTY OF SOCIAL SCIENCES
M.S.W. III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
COUNSELLING: THEORY & PRACTICE
PAPER – I

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 Counseling.
2. Micro Skills model.
3. Interview in Counseling.
4. Gestalt therapy.
5. HIV/AIDS.

<u>Section – B</u>   (5x10=50)

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

6. a) Explain the need and importance of Counseling.
                          (OR)
    b) What are the Skills and techniques of counseling?

7. a) Explain the Egan model of counseling.
                          (OR)
    b) What are the models of counseling? Explain them.

8. a) Explain the use of observation in counseling.
                          (OR)
    b) Explain the process of interviewing in counseling.

9. a) Explain Psychoanalytic therapy and its application in counseling.
                          (OR)
    b) Explain Rational Emotive therapy and its application in counseling.

10. a) Explain the process of counseling in case of bereavement in a family.
                          (OR)
    b) Why marital counseling is important in Indian context? Explain.

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FACULTYOF BUSINESS MANAGEMENT
MBA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
OPERATIONS MANAGEMENT
PAPER – I

Time: 3 Hours]   [Max. Marks: 70

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

<u>Section – A</u>   (5x3=15)

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

1. Process Design.
2. Reliability.
3. Quality Circles.
4. Work Measurement.
5. Inventory Control.

<u>Section – B</u>   (5x8=40)

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

6. a) Explain the how operations management influence Decision-Making of any organization.
   (OR)
   b) Discuss on the factors that influence the location.

7. a) Explain about basic functions of Production Planning.
   (OR)
   b) Discuss on Replacement Policies and Models.

8. a) Define the term Quality and explain about Standards and Specifications to be followed in Quality Management.
   (OR)
   b) Elucidate that how Statistical Quality Control can help the Business Organizations.

9. a) Describe the importance of work study in Project Management.
   (OR)
   b) Explain about various methods of Measurement of work.

10. a) Discuss about the essential steps for effective Materials Management.
    (OR)
    b) Explain about JIT in effective Materials Management.

<u>Section – C (Compulsory)</u>   (1x15=15)

Siri & Co, is a producer of Cosmetics at Hyderabad. As part of their business they by different types of material in different Quantities as follows.

Material Name	Qty (in units)	Price per unit (Rs.)
x_1	200	10.00
x_2	1000	12.50
x_3	500	2.20
x_4	6000	1.50
x_5	5000	0.75

They take the above mentioned material for every operating cycle but they are not able to produce the product 'K' that consumes the material x_1-to-x_5. It is found. that the highest cost that deviated is material cost only due to lack of proper control. Advise the organisation the best Material/Inventory Control Method that can ensure the cost minimisation.

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FACULTY OF COMMERCE
M.Com (GENERAL) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
RESEARCH METHODOLOGY AND STATISTICAL ANALYSIS
PAPER –I

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. Purpose of Research.
2. Questionnaires Vs Schedule.
3. Bias.
4. Axiomatic Approach.
5. Yates Correction.

<u>Section – B</u>   (5x10=50)

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

6. a) Explain the role of Quantitative Techniques in facilitating business decisions.

(OR)

b) What are the components of a research plan?

7. a) Write about measurement and scaling techniques.

(OR)

b) Design a model questionnaire to help a hotel in Nizamabad to evaluate is customer satisfaction.

8. a) With suitable examples write about the various statistical fallacies.

(OR)

b) With suitable examples explain the statistical fallacies.

9. a) A Company has four production sections $S_1, S_2, S_3,$ and S_4 which Contributes 30%, 20, 28%, and 22% respectively to the total put it was observed that these sections produced 1%, 2%, 3% and 4% defective units. If a units selected at random and found to be defective . What is the probability that the unit to select has come from either Section S_1 or section S_4.

(OR)

b) The first proof of 200 pages of a book contains of 560 pages revealed the following distribution of the number the following:

No. of errors in page:	0	1	2	3	4	5	Total
No. of Pages:	112	63	20	3	1	1	200

Fit a Poisson distribution corresponding to these data.

10. a) A die is thrown 120 times with the following results:

Face	1	2	3	4	5	6
Frequency	16	30	22	18	14	20

Test the hypothesis that the die is unbiased.

(OR)

b) Given N=1500, (A) =383, (B) =360, (AB) =35. Prepare 2 x 2 table. Compute Yule's coefficient of association and interpret the result.

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FACULTY OF COMMERCE
M.Com. (E-Commerce) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
QUANTITATIVE TECHNIQUES FOR MANAGERIAL DECISIONS
PAPER – I

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. Regression Analysis.
2. Type I and Type II errors.
3. R-Chart.
4. Maximin.
5. SPSS

<u>Section – B</u>   (5x10=50)

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

6. a) What do you mean by Quantitative Techniques? Explain its classification.

(OR)

b) Calculate the rank correlation coefficient for the following data.

X:	68	64	75	50	64	80	75	40	55	64
Y:	62	58	68	45	81	60	68	48	50	70

7. a) In a sample of 1000 people in Telangana, 540 are rice eaters and the rest are wheat eaters can we assume that both rice and wheat are equally popular in the state at 1% level of significance?

(OR)

b) What is Hypothesis? Explain the hypothesis testing procedure in detail.

8. a) The following figures show the distribution of digits in numbers chosen at random form a telephone directory.

Digits	0	1	2	3	4	5	6	7	8	9	Total
Frequency	1026	1107	997	966	1075	933	1107	972	964	853	1000

Test whether the digits may be taken to occur equally frequently in the directory.

(OR)

b) What do you mean by Statistical Quality Control? Explain the importance of SQC.

9. a) Following is the payoff matrix for player X.

Player Y

		I	II		III	IV	V
	I	2	4		3	8	4
Player X	II	5	6		3	7	8
	III	6	7		9	8	7
	IV	4	2		8	4	3

Using dominance property, obtain the optimal strategies for both the players and determines for both the players and determine the value of the game.

P.T.O

(OR)

b) Given is the following payoff matrix.

State of Nature	Probability	Course of Action		
		Don't Expand	Expand 200 Units	Expand 400 Units
High Demand	0.4	2500	3500	5000
Medium Demand	0.4	2500	3500	2500
Low Demand	0.2	2500	1500	1000

What should be the decision if we use

i) EMV Criterion

ii) The Minimax Criterion

iii) The Maximax Criterion

iv) Maximax regret Criterion.

10. a) Explain how SPSS is useful in research.

(OR)

b) Explain how analysis of variance can be done by using MS-Excel with imaginary figures.

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FACULTY OF SCIENCE

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

OPERATIONS RESEARCH - I

PAPER – I

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. Explain different phases of operations research.
2. Explain Characteristics of queuing models.
3. Define PERT.
4. Define Stochastic Programming Problem.
5. Define Sensitivity analysis.

<u>Section – B</u>   (5x10=50)

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

6. a) Solve by dual simplex method to

           Minimize $Z = 2x_1 + 2x_2 + 4x_3$

           Subject to $2x_1 + 3x_2 + 5x_3 \geq 2$

                        $3x_1 + x_2 + 7x_3 \leq 3$

                        $x_1 + 4x_2 + 6x_3 \leq 5$, and $x_1, x_2 \geq 0$.

(OR)

    b) Solve the problem,

           Maximize $Z = 4x_1 + 6x_2 + 2x_3$

           Subject to $x_1 + x_2 + x_3 \leq 3$,

                        $x_1 + 4x_2 + 7x_3 \leq 9$,

                      and $x_1, x_2 \geq 0$.

    Find the effect of changing the objective function to $Z = 2x_1 + 8x_2 + 4x_3$ on the current optimal production mix.

7. a) Discuss

     i) M|M|1:N|FIFO Model

     ii) M|M|L:∞|FIFO Model

(OR)

    b) There are seven jobs, each of which has to go through the machines A and B in the order AB, processing times in hours are given as.

Job:	1	2	3	4	5	6	7
Machine A:	3	12	15	6	10	11	9
Machine B:	8	10	10	6	12	1	3

    Determine a sequence of these jobs that will maximize the total elapsed time T.

8. a) Explain:

     (i) Multi-items inventory model.

     (ii) ABC analysis

(OR)

b) A Small Project is composed of 7 activities whose time estimate are listed in the table below:

Activity (i-j)	Optimistic Time (t_0)	Most Likely Time (t_m)	Pessimistic Time (t_p)
1-2	1	1	7
1-3	1	4	7
1-4	2	2	8
2-5	1	1	1
3-5	2	5	14
4-6	2	5	8
5-6	3	6	15

i) Draw the project network and identify the path.
ii) Find the expected duration and variance of each activity.
iii) What is the expected project length?

9. a) Explain all Integer Programming algorithms.

(OR)

b) Solve by Branch and Bound method.
   Maximize $Z=2x_1+3x_2$,
   Subject to, $6x_1+5x_2 \leq 25$, $x_1+3x_2 \leq 10$,
                 $x_1, x_2 \geq 0$.and integers.

10. a) Explain Parametric Programme Problem in detail.

(OR)

b) Discuss in detail the inventory costs which are to be considered for determination of economic order quantity.

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FACULTY OF SCIENCES
M.Sc. (Biotechnology) III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
r-DNA Technology
PAPER – I

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. Methylases
2. Chromosome Walking
3. Southern Blotting
4. Factors affecting cloned gene expression
5. PUC18

Section – B

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

6.   a) Write about the restriction endonucleases and their importance in molecular
        cloning.

(OR)

   b) Write on
     i) Phosphatases   ii) Shuttle Vectors

7.   a) Give an account of construction of c-DNA libraries?

(OR)

   b) Write on:
     i) DNA Cloning   ii) Jumping and linking libraries.

8.   a) Explain about the labeling of nuclic acid and proteins.

(OR)

   b) Write on:
     i) Colony hybridization   ii) Sanger's method of DNA sequencing.

9.   a) Give an account of site director mutagenesis?

(OR)

   b) Write on:
     i) Insertional inactivation   ii) PCR

10. a) Explain about plasmids and their role in cloning?

(OR)

   b) Write on:
     i) Restriction mapping of cloned fragments   ii) Nucleases

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FACULTY OF SCIENCES
M.Sc. (BOTANY) III – SEMESTER REGULAR EXAMINATION, DEC- 2017

CELL BIOLOGY, GENETICS, ECOLOGY AND PHYTOGEOGRAPHY

PAPER – 01

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. Introns and Exons
2. Protooncogenes and Oncogenes
3. Biomass and Biosphere
4. Endemism
5. Raunkier's biological spectra

Section – B

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

6. a) Explain the Basic principles of Light and Electron microscope?

(OR)

b) Describe the gene regulation in prokaryotes with *Lac*-operon?

7. a) Give a detailed overview of Medelian inheritance?

(OR)

b) Write an account of Gene mutations?

8. a) Describe the energy dynamics of Ecosystem?

(OR)

b) Define the bio-geochemical cycles? Explain the N_2 cycle?

9. a) Write an account of Koppen and Thornthwaite's climate classification?

(OR)

b) What are the Greenhouse gases? Explain their role in climate change?

10. a) Discuss the role of cyclins and cyclin dependant kinases in cell cycle regulation?

(OR)

b) Explain the sources of soil pollution and its effect on ecosystem?

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FACULTY OF SCIENCES

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

RESEARCH METHODOLOGY & SPATRIAL ANAYSIS

PAPER – I

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. Review of Literature
2. Research Objectives
3. Sample
4. Questionnaire
5. Chapterisation

Section – B

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

6. a) Give a detailed account of Research design.

(OR)

b) Explain various types of Research Methods.

7. a) Describe Sampling and their types.

(OR)

b) Explain merits and demerits of Primary Data.

8. a) Differentiate measures of central tendency and dispersion.

(OR)

b) Explain about the Elements of Research Report.

9. a) Explain various themes of Spatial Analysis.

(OR)

b) Differentiate Qualitative and Quantitative Research.

10. a) Explain about the Process of Spatial Hydrological Analysis.

(OR)

b) Write about the Significance of Research Hypothesis.

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FACULTY OF SCIENCE

M.Sc. (CHEM-OC/PCH-2YPGP) III – SEMESTER REGUALAR EXAMINATIONS, DEC- 2017

CONFORMATIONAL ANALYSIS, ASYMETRIC SYNTHESIS AND BIOMOLECULES

PAPER – 01

(*Common paper*)

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

1. Discuss is the Stereo Chemistry of bicyclo [3,3,0] octanes.
2. Define Prochirality and Stereoselectivity, explain with suitable examples.
3. Draw the suitable conformations of "Cis" and "Trans" 4-ter butyl cyclohexane.
4. What are the phospho glyceridins and sphingo lipids? Give each one example.
5. Explain about the "Replication".

<u>Section – B</u>   (5x10=50)

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

6   a) What are the conformational effects on the stability and reactivity of diastereomers in cyclic molecules. Give any three-suitable examples.

(OR)

   b) Explain the stereochemistry of addition to the carbonyl group of a rigid cyclohexanone ring.

7   a) What is Cram's Rule? Discuss its application in Asymmetric Synthesis.

(OR)

   b) Discuss the α-alkylation reactions of chiral enolates and with suitable examples.

8   a) An equatorial hydroxyl in cyclo hexane is readily esterified when compared to axial hydroxyl? Explain.

(OR)

   b) Write the conformational structures of Cis and trans decahydroquinolines and point out the more stable conformations and justify your answer.

9   a) Write a note on Protein Biosynthesis.

(OR)

   b) What are Immobalised enzymes? Describe enzyme selectivity using the three point attachment rule.

10 a) Explain the mechanism and scope of Sharpless epoxidation.

(OR)

   b) i) What is the 2-alkyle ketone effect? Discuss with suitable example.
      ii) Write a brief note on key and Induce Fit mechanism.

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FACULTY OF SCIENCE

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

SOLID STATE PHYSICS - II

PAPER – I

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. Define phonon and give its properties.
2. Distinguish between external electric field and local field in dielectrics.
3. Write a short note on Bloch wall.
4. Give some applications of super conductors.
5. Write a note on Weiss molecular field theory.

<u>Section – B</u>   (5x10=50)

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

6 a) Derive dispersion relation in case of diatomic linear lattice and comment on its significance.

(OR)

   b) What is the origin of thermal expansion-Derive Gruneisen relation?

7 a) Obtain an expression for electronic and ionic polarizability.

(OR)

   b) Explain ferroelectricity in $BaTiO_3$. What are the applications of ferroelectricity.

8 a) Give a detailed theory of Neel's theory of anti ferromagnetism.

(OR)

   b) Discuss the comparison between classical and quantum theories of diamagnetism.

9 a) What is quantum mechanical tunneling. Distinguish between Giaver and Josephson tunnelings.

(OR)

   b) Explain Superconductivity using BCS Theory.

10 a) While giving the origin of permanent magnetic moment, discuss the theory of paramagnetism.

(OR)

   b) Compare and contrast the low temperature and high temperature super conductivity and briefly mention the theories involved in them.

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FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
COMPLEX ANALYSIS
PAPER – I

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. Prove that an analytic function is independent of $\bar{z}$ and a function of z alone.
2. Expand $\frac{2z+3}{z+1}$ in powers of z-1, what is the radius of convergence.
3. If $T_1(z) = \frac{z+2}{z+3}$, $T_2(z) = \frac{z}{z+1}$ find $(T_1 T_2)(z)$, $(T_2 - T_1)(z)$ and $(T_1^{-1} T_2)(z)$.
4. State and prove the Weierstrass theorem on essential isolated singularity.
5. State and prove Liouville's theorem.

<u>Section – B</u>   (5x10=50)

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

6. a) i) State and prove Luca's theorem.
   ii) Find the radius of convergence of the series: $\sum \frac{ni}{n^n} z^n$ $\quad and \quad \sum \frac{(z-i)^n}{n^2}$
   (OR)
   b) State and prove the necessary and sufficient conditions for analytic functions.

7. a) i) Define cross ratio. Prove that the cross ratio (z_1, z_2, z_3, z_4) is real if and only if the four points lie on a circle or on a straight line.
   ii) Show that a linear transformation carries circles into circles.
   (OR)
   b) Define Symmetry. State and prove symmetry principle.

8. a) i) Show that the line integral $\int_{\gamma} pdx + qdy$ defined in Ω depends only on the ends of γ if and only if there exists a function $\cup(x, y)$ in Ω with the partial derivatives, $\frac{\partial u}{\partial x} = p, \frac{\delta u}{\delta y} = q$
   ii) Evaluate $\int_{\gamma} (x^2 - iy^2) dz$ along the parabola $y = 2x^2$ from (1, 2) to (2, 8).
   (OR)
   b) State and prove Cauchy's theorem for a rectangle.

9. a) State and prove general statement of Cauchy's theorem.
   (OR)
   b) Define singularity. What are different types of singularities? Explain with examples.

10. a) i) Find the radius of convergence of the series $\sum n! \, z^2$ and $\sum z^{n!}$
    ii) Show that a limit function of uniformly convergent sequnece of continuous functions is it self continuous.
    (OR)
    b) State and prove Cauchy's integral formula and hence compute $\int_{|z|=2} \frac{dz}{z^2+1}$.

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FACULTYOF SCIENCES
M.Sc.,-(ZOO) III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
FISH BIOLOGY
PAPER – I

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. Ostracoderms
2. Food of fishes
3. Splanchanocranium
4. Pituitary gland
5. The lateral line system

Section – B   (5x10=50)

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

6. a) Give a detailed account on fins and scales.

(OR)

   b) Write about the general charterers and classification of Placoderms and Dipnoi.

7. a) Explain in detail about Osmoregulation and ion balance in freshwater fishes.

(OR)

   b) Describe the types of migration in fishes and write about factors influencing and controlling migration.

8. a) Describe the respiratory Organ-thegill and mechanism of respiration.

(OR)

   b) Describe the Digestive Tract of a Fish?

9. a) Explain the female reproductive system of a fish.

(OR)

   b) Explain about early embryonic development in fishes.

10. a) Describe the circulatory system of fishes.

(OR)

   b) Give an account on dynamic lift in fishes.

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FACULTY OF SCIENCE
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
SOFTWARE ENGINEERING

PAPER – I

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 is Software Process?
2. Define a Software requirement specification.
3. Differentiate between Cohesion and Coupling.
4. Write about Quality Planning.
5. Differentiate between a Software measure and a Software metric.

Section – B

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

6. a) What are Software Process Models? Distinguish between waterfall model and spiral model.

(OR)

b) Write about Project Management Process.

7. a) Explain the process of functional specifications with use cases.

(OR)

b) Discuss Component and Connector view of Software Architecture.

8. a) What is Effort Estimation? Explain its methods.

(OR)

b) Explain the differences between functions oriented design and object oriented design?

9. a) Differentiate between black-box and white-box testing? Explain its metrics.

(OR)

b) What is Unit testing? List out the metrics.

10. a) What is different between re-engineering and reverse engineering? Explain different steps of re-engineering.

(OR)

b) Discuss various SPI Frame Works.

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