FACULTY OF SOCIAL SCIENCES
M.A. (APE: 5-YIPGP) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
MACRO ECONOMICS - I

PAPER – III

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. Flow variables.
2. Gross Domestic Product.
3. National income accounting.
4. Wage cut theory.
5. Investment multiplier.

<u>Section – B</u> (5x10=50)

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

6. a) Distinguish between micro and macro economics and explain their interdependency.
   (OR)
   b) What is macro economics? Explain in detail macro economic variables.

7. a) Define national income. Explain its importance and limitations of national income estimates.
   (OR)
   b) Critically explain the methods of estimation of national income in India.

8. a) What is circular flow? Explain four sector model of circular flow of income.
   (OR)
   b) What is social accounting? Explain the components and importance of social accounting.

9. a) Discuss Keynes' criticism on classical theory of employment.
   (OR)
   b) Explain the main features of Say's law of markets.

10. a) Explain short run consumption function.
    (OR)
    b) Explain the determination of equilibrium level of investment.

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FACULTY OF ARTS
M.A. (ENGLISH) III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
POSTCOLONIAL LITERATURES
PAPER – III

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. Decolonization.
2. Theme of "Death Lay in Ambush".
3. Character of Ikemefuna.
4. Character of Segi.
5. Naipaul's style of writing.

<u>Section – B</u>   (5x10=50)

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

6. a) Critically examine the nature and significance of Diasporic literature with examples.

(OR)

b) How is the concept of nation and nationalism manifested in post colonial literature?

7. a) Discuss the thematic concerns in Braithwaite's poetry.

(OR)

b) Discuss Judith Wright as a feminist with reference to the poems you have studied.

8. a) Evaluate the rise and fall of Okonkwo in *Things Fall Apart*.

(OR)

b) How does Atwood re-appropriate the body to articulate women's anxieties over her oppressive cultural experiences and oppression in *The Edible Woman*?

9. a) Enumerate the African elements in *Dream on Monkey Mountain*.

(OR)

b) Discuss Soyinka's Kongi's *Harvest* as a political satire.

10. a) Present the arguments of Ngugi in his essay on *"The Language of the African Literature"*?

(OR)

b) What are the observations of Naipaul in his essay on *"Indian Autobiographies"*?

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FACULTY OF ARTS
M.A. (HINDI) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
BHARATIYA KAVYA SHASTRA
PAPER – III

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. काव्य में 'रस' के महत्व पर प्रकाश डालिए
2. 'काव्य के प्रयोजन' की विशद व्याख्या कीजिए ।
3. काव्य हेतु किसे कहते है?
4. महाकाव्य के लक्षण लिखिए ।
5. काव्य के प्रमुख भेदों का उल्लेख कीजिए ।

Section – B

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

6. a) रस निष्पत्ति में साधारणीकरण की भूमिक को स्पष्ट कीजिए ।
   (OR)
   b) काव्य में अलंकारों के महत्व पर प्रकाश डालिए ।

7. a) भारतीय काव्य शास्त्र के विकास की परंपरा पर प्रकाश डलिए ।
   (OR)
   b) ध्वनि सिद्धान्त के अंतर्गत ध्वनि के स्वरुप को स्पष्ट कीजिए ।

8. a) वक्रोति की अवधारणा को स्पष्ट कीजिए और उसके भेदों पर विचार कीजिए ।
   (OR)
   b) औचित्य सिद्धान्त के महत्व को स्पष्ट कीजिए ।

9. a) रीति सिद्धान्त का विवेचन कीजिए ।
   (OR)
   b) महाकाव्य एवं खंड काव्य के लक्षणों को विस्तारपूर्वक प्रस्तुत कीजिए ।

10. a) रीति में 'रीति एवं शैली' के प्रयोजन पर प्रकश डालिए ।
    (OR)
    b) काव्य की आत्मा को निरुपित करने के लिए स्थापित विभिन्न संप्रदायों का परिचय दीजिए ।

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FACULTYOF SOCIAL SCIENCES

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

INFORMATION AND COMMUNICATION TECHNOLOGIES AND NEW MEDIA

PAPER – III

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. ICT
2. Information revolution.
3. Social media
4. Online shopping
5. Cyber crimes

Section – B   (5x10=50)

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

6. a) Growth and development of internet in India and its impact on development.

(OR)

   b) What are information and communication technologies (ICTs) and write about their role in modern world.

7. a) Write an essay on information revolution and on the concept of information society.

(OR)

   b) Democratization of information and its impact on development.

8. a) What is social media and write about its impact on electronic media and print media.

(OR)

   b) Role of New Media in social and cultural movements in the World.

9. a) Write a critical analysis about New Media as an alternative source of information.

(OR)

   b) Explain about the impact of New Media on mass communication.

10. a) What is internet security and explain the need for net neutrality.

(OR)

   b) Write an essay about the cyber crimes and the need for cyber laws.

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FACULTY OF ARTS
M.A.(TSD) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
LITERATURE OF DALIT AND ADIVASI
PAPER – III

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. దళిత సాహిత్యం – అధ్యయన ఆవశ్యకత.
2. దళిత సాహిత్యం – తాత్విక భావనలు.
3. దళిత సంస్కృతి.
4. ఆదివాసీ సాహిత్యం – లక్షణాలు.
5. ఆదివాసీ తెగలు.

Section – B

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

6. a) దళిత సాహిత్యం–ఆరంభ వికాసాలను వివరించండి.

          (లేదా)

    b) దళిత సాహిత్యాన్ని నిర్వచించి, దాని ప్రత్యేకతను తెల్పండి

7. a) "ఎదురు చూపులు" కథల్లో కనిపించే దళిత సంస్కృతి?

          (లేదా)

    b) కక్క నవలలో ప్రతిఫలించిన తెలంగాణ దళిత జీవితం?

8. a) తెలుగులో వచ్చిన దళిత నవలను పరిచయం చేయండి.

          (లేదా)

    b) దళిత సాహిత్యంలో వచ్చిన ప్రక్రియా వైవిధ్యాన్ని వివరించండి.

9. a) ఆదివాసీ సాహిత్యం ఆరంభ, వికాసాలను పేర్కోనండి.

          (లేదా)

    b) ఆదివాసీలు ప్రయోగించే పొడుపు కథలు, సామెతలను వివరించండి.

10.   a) కొమురంభీము నవలలో గల గిరిజన సోపానాలు.

          (లేదా)

    b) ఆదివాసీ సంస్కృతిని గుర్తించే కొన్ని పండుగలను వివరించండి.

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FACULTY OF ARTS
M.A. (URDU) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
MASS MEDIA & COMPUTER-I
PAPER – III

Time: 3 hours]   [Max. Marks: 70

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

(حصہ'الف')

$(5 \times 4 = 20)$

I :۔ تمام سوالات کے جواب مطلوب ہیں ۔ ہر جواب ایک صفحہ سے زائد نہ ہو ۔

١ ۔ اردو "ڈی ٹی پی" پر مختصر نوٹ لکھیے ۔

٢ ۔ ٹیلی ویژن اور ریڈیو پر نشر ہونے والی خبروں کو اپنے الفاظ میں بیان کیجیے ۔

٣ ۔ انٹرنیٹ کا تعارف پیش کیجیے ۔

٤ ۔ ریڈیو کے مختلف تفریحی پروگراموں کا تعارف پیش کیجیے ۔

٥ ۔ ڈاکیومنٹری فلم پر نوٹ لکھیے ۔

(حصہ'ب')

$(5 \times 10 = 50)$

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

٦ ۔ ریڈیو کے آغاز و ارتقاء پر روشنی ڈالتے ہوئے اس کی اہمیت پر نوٹ لکھیے ۔

یا

کمپیوٹر کی اہمیت کو واضح کرتے ہوئے ہارڈ ویر اور سافٹ ویر پر نوٹ لکھیے ۔

٧ ۔ ماس میڈیا کے آغاز و ارتقا پر نوٹ لکھتے ہوئے اس کے اقسام پر روشنی ڈالیے ۔

یا

اردو ان پیج پر نوٹ لکھتے ہوئے نوری نستعلیق فونٹ پر روشنی ڈالیے ۔

٨ ۔ ٹیلی ویژن کے آغاز و ارتقا کا تفصیلی خاکہ پیش کیجیے ۔

یا

ٹیلی ویژن کے سیاسی، سماجی، مذہبی اور معلوماتی پروگراموں کا احاطہ کیجیے ۔

P.T.O.

۹- کمپیوٹر کی تعریف کرتے ہوئے اس کی تاریخ اور نسلیں واضح کیجیے ۔

یا

سوشیل میڈیا' فیس بک" "یوٹیوب' اور "ای میل' ترسیل کے میدان میں کس حد تک کامیاب ہے روشنی ڈالیے ۔

۱۰- فلم کے آغاز و ارتقا' کے متعلق اپنی معلومات رقم کیجیے ۔

یا

کمرشیل فلم' فیچر فلم اور نیوز ریل پر تفصیلی نوٹ لکھیے ۔

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

Time: 3 hours]   [Max. Marks: 70

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

<u>Section – A</u>

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

1. Foreign Trade
2. Indian Work Fource
3. Regional Planning
4. Banking
5. Economic Reforms

<u>Section – B</u>

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

6.   a) Discuss the Commercialization of Indian Agriculture.

(OR)

   b) Elucidate Trends in National income during the Reforms Period.

7.   a) Explain the change in Growth and Structure of Indian Economy.

(OR)

   b) Discuss the Problems of Inequalities in Indian Economy.

8.   a) Write the note on Over-View of the Indian Economy.

(OR)

   b) Discuss the role of Public Sector in Indian Economic Development.

9.   a) Analyse the Price behavior in India.

(OR)

   b) Explain the Credit Policies of Reserve Bank of India (RBI).

10. a) Discuss the importance of Private Sector role in Indian Economy.

(OR)

   b) Discuss the issues in Import and Export Policy of India.

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FACULTY OF SOCIAL SCIENCES
M.A. (Political Science) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017

INDIA'S FOREIGN POLICY
PAPER – III

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. Racial discrimination
2. Non-alignment
3. Thehreek-e-Taliban
4. India-Bangladesh land boundary agreement
5. Pushpa Kamal Dahal

Section – B   (5x10=50)

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

6. a) Define Foreign Policy, and discuss the goals and objectives of Foreign Policy.

   (OR)

   b) Discuss the relevance of Non-alignment movement in the changing international order.

7. a) Examine the role of Cabinet in the making of India's Foreign Policy.

   (OR)

   b) Elucidate the origin, evolution and contours of India's Foreign Policy.

8. a) Discuss India's Internal Security Concerns.

   (OR)

   b) Write a note on India's Nuclear Policy.

9. a) Discuss India's relations with Afghanistan in the last decade.

   (OR)

   b) Examine India's relations with Pakistan in the light of the recent surgical strike by India.

10. a) China Continuous to violate bi-lateral relations by its ingressive incursions into India's borders. Discuss.

    (OR)

    b) Write a note on Indo-US relations.

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FACULTY OF SOCIAL SCIENCES
M.A. (Public Administration) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017

GOVERNANCE
PAPER – III

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. Scope of Governance
2. Meaning of Democracy
3. Human Rights
4. Social Audit
5. Information Technology

<u>Section – B</u>   (5x10=50)

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

6. a) Write an essay on 'Re-inventing' Government.
                (OR)
    b) High light the characteristics of Good Governance.

7. a) Define 'Governance' Comment its Characteristics.
                (OR)
    b) Write an Essay on Democratic Administration.

8. a) Describe the nature, Signification and Development of Rule of Law.
                (OR)
    b) Write an Essay on 'Ethics' in administration.

9. a) Write a critical essay on 'Openness' in Administration.

                (OR)
    b) Citizen's Charters had limited success in developing countries-Discuss.

10. a) Discuss the concept of 'Market Oriented Government'. Comment its characteristics.
                (OR)
    b) Write a critical note on ICT in Administration.

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FACULTY OF SOCIAL SCIENCES
M.S.W. III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
RURAL COMMUNITY DEVELOPMENT
PAPER – III (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. Class patterns of rural community.
2. Functions of Grama Sabha.
3. Local governments.
4. Rural unemployment.
5. Rural resources.

Section – B   (5x10=50)

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

6. a) Define rural sociology and discuss its scope.

(OR)

b) Write an essay about the kinship patterns in rural communities.

7. a) Briefly explain the Panchayti Raj Structure.

(OR)

b) Present the Panchayati Raj System in Andhra Pradesh.

8. a) Describe the functions of co-operatives.

(OR)

b) Explain the Co-operatives performance in rural development.

9. a) Critically examine the rural sanitation in India.

(OR)

b) Discuss about the rural industries in India.

10. a) What are the indicators of rural development.

(OR)

b) Discuss the role of community based organizations in rural community development.

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FACULTY OF SOCIAL SCIENCES
M.S.W. III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
WOMEN EMPOWERMENT AND DEVELOPMENT
PAPER – III (b)

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. Women development in Pre-India.
2. Early marriages in India.
3. Mental health problems of women.
4. Marriage law-India.
5. Gender equality.

<u>Section – B</u>   (5x10=50)

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

6. a) What are the programmes for women development in India? Explain.
   (OR)
   b) Discuss the religion status of women in Indian society.

7. a) Write about the sex determination situations in India.
   (OR)
   b) Briefly explain the malnutrition situation of girl child in India.

8. a) Examine the sexual harassment of women in Indian Society.
   (OR)
   b) Critically analyse the physical health problems of Indian Women.

9. a) What are the rights generated under Indian Constitution for women? Describe.
   (OR)
   b) Explain the role of NGOs in women empowerment.

10. a) Write an essay on reform movements of women in India.
    (OR)
    b) Discuss the gender equality issues of Indian Women.

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FACULTY OF SOCIAL SCIENCES
M.S.W. III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
PSYCHIATRIC SOCIAL WORK - I
PAPER – III (c)

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. Meaning of Psychiatric Social Work.
2. Behaviour assessment.
3. Explain about Specific Phobias.
4. Classification of mental sub normality.
5. Mood disorders.

Section – B   (5x10=50)

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

6. a) Discuss the role of Social worker in mental health setting.

(OR)

   b) Trace out the historical development of Psychiatric Social Work in USA.

7. a) Explain ICD- Classification of mental disorders.

(OR)

   b) Discuss about clinical assessment of psychological disorders.

8. a) Describe the causes and treatment of anxiety disorders.

(OR)

   b) Discuss the causes and treatment of obsessive compulsive disorder.

9. a) Discuss about types of psychosomatic disorders.

(OR)

   b) Elaborate on the role of psychiatric social work in treatment of mentally ill.

10. a) Discuss in detail about cognitive disorders.

(OR)

   b) Explain the causes and treatment of bipolar disorders.

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

Time: 3 Hours]   [Max. Marks: 70

Note: Answer all questions from Section – A, B & C

Section – A   (5x3=15)

Answer the following questions in not more than **ONE** page each:
1. Phases of OR
2. Degeneracy
3. Unbalanced T.P
4. Simulation
5. Waiting Line

Section – B   (5x8=40)

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

6. a) What is OR? Explain the techniques of OR.

(OR)

b) Formulate the following problem as an LPP.
A firm engaged in producing 2 models X_1, X_2 performs 3 Operations-Painting, Assembly and Testing. The relevant data are as follows:

Model	Unit Sale Price	Hours required for each unit		
		Assembly	Painting	Testing
X_1	Rs. 50	1.0	0.2	0.0
X_2	Rs.80	1.5	0.2	0.1

Total no. of hrs. Available are for Assembly 600, for Painting 100; for Testing 30
Determine weekly production schedule to maximize revenue

7. a) What is the concept of Duality? Explain the Big M method Procedure.

(OR)

b) Solve the following LPP. Using simplex method.

Maxmise $Z = 23x_1 + 32x_2$
Subject to $10 x_1 + 6x_2 \le 2500$
$5x_1 + 10 x_2 \le 2000$
$x_1 + x_2 \le 500$
and $x_1, x_2 \ge 0.$

8. a) What is T.P? State briefly the methods of IBFS and merits of T.P.

(OR)

b) Obtain IBFS to the following TP using:
i) VAM and (ii) NWCM and compare the solutions for their costs.

Dealer Factory	1	2	3	4	5	Supply (tons)
A	17	7	8	14	11	150
B	9	11	12	7	9	250
C	13	6	15	10	10	300
Demand (tons)	100	120	140	160	180	

P.T.O

9. a) What is Assignment Problem? State the Business application of A.P.

(OR)

b) A Company has a team of four salesmen and there are four districts where the Company wants to start its business. After taking into account the capabilities of salesman and the nature of districts, the company estimates that the profit per day in rupees for each salesman in each district is as below:

Salesman	District			
	1	2	3	4
A	16	10	14	11
B	14	11	15	15
C	15	15	13	12
D	13	12	14	15

Find the assignment of salesman to various districts which will yield maximum profits.

10. a) Explain the Cost associated with waiting lines and feature of Queue System in detail.

(OR)

b) If Customers arrive at the rate of one every 15 seconds. How many customers do you expect 2 hours?

Section – C (Compulsory)   (1x15=15)

Maximize $Z = 400x_1 + 300x_2 + 200x_3$

Subject to $40x_1 + 20x_2 + 30x_3 \leq 600$

$10x_1 + 20x_2 + 20x_3 \leq 400$

$30x_1 + 20x_2 + 10x_3 \leq 80$

and $x_1, x_2, x_3 \geq 0$.

--oOo--

FACULTY OF BUSINESS MANAGEMENT
IM.B.A. (5YIPGP) III – SEMESTER REGULAR EXAMINATION, DEC- 2017
E-COMMERCE APPLICATIONS
PAPER – III

Time: 3 Hours]   [Max. Marks: 50

Section – A   (5x2=10)

1. Answer any five of the following question in not more than **ONE** page each.
a) Scope of E-Commerce
b) LAN
c) Electronic Market
d) Net Banking
e) E-Cash
f) HTML
g) Meta Tags
h) Alignment of Cell Text

Section – B   (5x8=40)

Answer the following question in not more than **FOUR** pages each.

2   a) State the function of E-Commerce and its Scope.
(OR)
    b) Explain the various Categories of Networks.

3   a) What is Electronic Market? Explain the models of Electronic Market.
(OR)
    b) Write briefly about online shopping and online purchasing.

4   a) What is EDI? State the advantages of it.
(OR)
    b) Write about Electronic Payment System in detail with a suitable example.

5   a) How do you Create, View and Check WebPages? Explain.
(OR)
    b) Write about Styles, Fonts, Headings in HTML.

6   a) What do you mean by LISTS? Explain in detail.
(OR)
    b) How do you Create Frames? Explain.

--oOo--

FACULTY OF COMMERCE
M.Com (GENERAL) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
STRATEGIC MANAGEMENT
PAPER –III

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. What is Strategic Decision?

2. Write a note on SWOT analysis.

3. What are corporate level strategies?

4. Explain the concept of choice of strategy.

5. What is Strategic Audit?

<u>Section – B</u>   (5x10=50)

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

6. a) Define Strategic Management. Discuss the features of Strategic Management in detail.
    (OR)
    b) What do you mean by Strategic decision making? Explain various approaches to strategic decision making.

7. a) Explain the PESTE Analysis? Describe the relevance of PESTE analysis in strategic management?
    (OR)
    b) Describe the significance of corporate portfolio analysis in business strategic formulation.

8. a) What do you mean by Reengineering and Restructuring? Explain.
    (OR)
    b) Explain the concept of Business Level Strategies in detail.

9. a) Discuss the steps involved in strategy implementation.
    (OR)
    b) Write a note on:
       i) Organisational culture and strategy
       ii) Leadership qualities.

10. a) What do you mean by Benchmarking? Describe qualitative and quantitative benchmarking to evaluate performance.
    (OR)
    b) Discuss the need for strategic control in an organization.

--oOo--

FACULTY OF COMMERCE

M.Com. (E-Commerce) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017

JAVA PROGRAMMING

PAPER – III

Time: 3 Hours]   [Max. Marks: 50

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. Modifiers
2. Loops
3. Boolean
4. HTML
5. JDBC

Section – B   (5x6=30)

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

6. a) Briefly explain about fundamentals of Java Programming.
            (OR)
    b) What are the different types of operators used in Java?

7. a) What do you understand by Overloading methods? Explain with example?
            (OR)
    b) Explain different types of modifiers giving suitable examples.

8. a) Explain the concept of inheritance along with the types of inheritance.
            (OR)
    b) What is an applet? Explain applet skeleton?

9. a) Write short notes on:
        i) Interface   ii) Servlet environment
            (OR)
    b) Write short note on the following:
      i) User defined package   ii) Creating and using an interface.

10. a) What are JDBC Drivers? Explain controlling transactions.
            (OR)
    b) Explain in detail mapping database types.
                        --oOo--

FACULTY OF SCIENCE
M.Sc. (Applied Statistics) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
FORECASTING MODELS
PAPER-III

Time:03 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. Describe the single exponential smoothing method.
2. Discuss the stationarity and invertability of AR (1) model.
3. Obtain initial estimates for auto regressive process.
4. State the properties of mean square error forecasts.
5. Describe the Stationary Stochastic Process and give two examples.

<u>Section–B</u>   (5x10 = 50)

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

6. a) Define sample spectrum and extract the relation between sample spectrum and
       autocorrelation function.

(OR)

  b) Define auto correlation function and state and prove its properties. How it is
     estimated?

7. a) Discuss two equivalent forms of General Linear Process and obtain auto covariance
       and spectrum function of linear process.
(OR)
  b) Explain AR(p) process. Derive ACF and PACF of AR(p).

8. a) Discuss estimation of parameters in MA(q) model using least squares method.
(OR)
  b) Explain three explicit forms of ARIMA(p,d,q).

9. a) Discuss the model diagnostic checks in detail.
(OR)
  b) Explain the calculation and updating the forecasts.

10. a) Explain Peridogram analysis in detail.
(OR)
  b) Define AR(2) model and derive its autocorrelations and power spectrum.

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FACULTY OF SCIENCES

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

IMMUNOLOGY

PAPER – III

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. Immunogenecity
2. Organization of light chain genes
3. Lymphocytes
4. Rheumatoid Arthritis
5. Humoral immune response

Section – B

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

6. a) Describe the properties of B-Cell and T-Cell epitopes?

(OR)

b) List out the organs of immune system and Explain their role in the development of immune response.

7. a) Explain the Basic and fine structure of immunoglobulin.

(OR)

b) Define the Monoclonal Antibodies and Explain their role in Diagnosis and clinical fields.

8. a) Discuss the polymorphism of MHC and their role in organ transplantation.

(OR)

b) Write essay on cellular distribution of MHC molecules.

9. a) Explain the cell mediates immune response?

(OR)

b) What is Auto-immunity and discuss the Auto-immune diseases.

10. a) Explain the factors influencing immunogenicity.

(OR)

b) Write detailed account on Immunoglobulin Classes and their applications.

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FACULTY OF SCIENCES
M.Sc. (BOTANY) III – SEMESTER REGULAR EXAMINATION, DEC- 2017
STRESS PHYSIOLOGY
PAPER – 03

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. Role of ABA in water stress
2. Frost injury
3. Negative Alleopathic Effect
4. Gene expression & UV- B defense
5. Heat Shock Proteins

Section – B

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

6. a) Write notes on the effects of drought on plant metabolism.
   (OR)
   b) Give the importance and consequences of flooding stress.

7. a) Explain the various cellular responses against high temperature.
   (OR)
   b) Explain how plant productivity is regulated by low temperature & frost injury.

8. a) What are Allelochemicals? Write about their mode of release and production.
   (OR)
   b) Explain the mechanism of metal ion toxicity tolerance.

9. a) Explain the plant response to UV-B radiation.
   (OR)
   b) Explain the mechanisms of plant Salt resistance.

10. a) Describe how plants response to high temperature.
    (OR)
    b) Write about salt elimination and succulence in plants.

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FACULTY OF SCIENCES

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

PHOTOGRAMMETRY

PAPER – III

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. Acquisition of Aerial Photography
2. Types of Stereoscopes
3. Ground Control Points
4. Polarization
5. Flying height

Section – B

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

6. a) What is Photogrametry? Explain the principles of Photogrametry.

(OR)

   b) Bring out differences between distortion and displacement. Explain their correction methods.

7. a) Explain Overlapping in process of Photo Mosaics and bring out the importance of Photographic reproduction of aerial Photography.

(OR)

   b) Explain in detail the geometric aspects of Aerial Photograph.

8. a) Bring out various elements or keys of Aerial Photo interpretation.

(OR)

   b) What is meant by depth perception? How it is obtained from Aerial Photographs.

9. a) Differentiate the Analog and Digital Photogrametry.

(OR)

   b) Explain the role of Aerial Photography in Land Use / Land Cover Mapping.

10. a) Differentiate between Aerial Photograph and Maps.

(OR)

   b) What are the main elements for flight planning and bring out the importance of Photographic Scale in Flight Planning.

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FACULTY OF SCIENCE

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

ORGANIC SPECTROSCOPY AND PERICYCLIC REACTIONS

PAPER – 03 (a)

(*Organic Chemistry Specialization*)

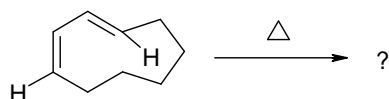Time: 3 Hours]   [Max. Marks: 70

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

Section – A   (5x4=20)

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

1. How is ^{13}C NMR is useful to differentiate isomers?
2. Write note on cotton effect.
3. Explain the criteria for aromaticity.
4. Give the product with its stereochemistry of following reaction.

5. Draw the HETEROCOSY Spectrum for 2-Butanone.

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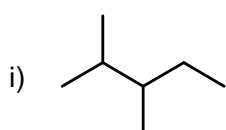
Answer all the following questions in not more than **FOUR** pages each:

6   a)   i) Explain the INEPT Spectrum with suitable examples.
         ii) Write note on proton decoupled (BBD) spectrum.
                                   (OR)
     b)   Calculate the ^{13}C Chemical shifts for the following molecules:
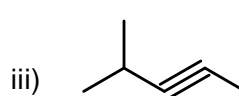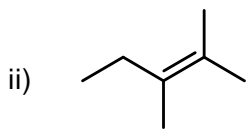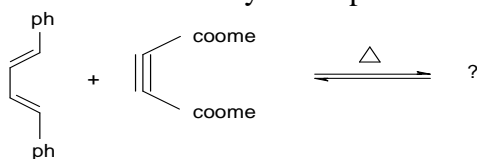

7 a)   i) Write the applications of 2D-INADEQUATE experiment.
         ii) Discuss about heteronuclear 2DJ-resolved spectrum with suitable example.
                                   (OR)
     b)   Explain the octant rule with appropriate examples.

8   a)   i) Give the stereo chemistry of the product of the given reaction by PMO method.

         ii) Explain Huckel's rule and its limitations.
   (OR)
     b)   Explain, how to apply PMO approach to justify concerted nature of COPE rearrangement under
          thermal and photochemical conditions.

9   a)   i) Write Woodward Hoffmann selection rules for electro cyclic reactions.
         ii) Construct OCD for the DIS rotatory inter conversions of 1,3-butadiene and cyclobutene.
                                   (OR)
     b)   i) Discuss the photochemical 1,3- sigma tropic reactions based on FMO approach.
          ii) Explain, why the following conversion is not possible?
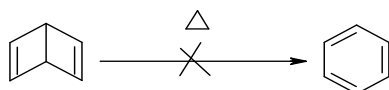
10   a) i) Explain DEPT experiment with suitable example.
         ii) Write note on HOMOCOSY Spectrum.
                                   (OR)
     b) Explain the Diels-Alder reaction using Orbital Correlation Diagram method.

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FACULTY OF SCIENCE

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

NMR SPECTROSCOPY, PERICYCLIC REACTIONS, SYNTHETIC STRATEGIES AND HETEROCYCLIC COMPOUNDS

PAPER – 03 (b)

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. Draw the HETEROCOSY Spectrum of ethyl benzoate?
2. Explain the main characteristics of pericyclic reactions?
3. Explain convergent synthesis with suitable example?
4. Write any two synthetic preparations of oxazole?
5. Explain chemoselectivity with suitable example?

<u>Section – B</u>   (5x10=50)

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

6 a) Calculate the ^{13}C Chemical shifts for the following molecules:

   i)   ii)   iii)
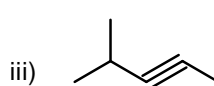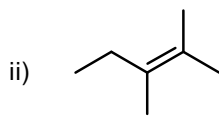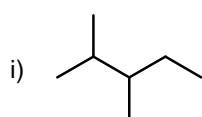
(OR)

   b) Explain the Homonuclear and hetero nuclear 2DJ-resolved spectroscopy with examples?

7 a) Derive the Woodward-Hofmann selection rules for electorcyclic reactions by ATS approach.

(OR)

   b) i) Draw the correlation diagram for Dis rotatory electrocyclic ring opening reaction of cyclobutene to 1,3-butadiene.
       ii) Diels-Alder Reaction is thermally allowed. Explain it by using correlation diagram.

8 a) Explain the following with suitable examples:
       i) Synthons   ii) Regio selectivity

(OR)

   b) i) Show the appropriate disconnections and formulate the synthesis of:
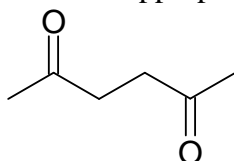
       ii) Illustrate functional group inter-conversion and functional group addition with suitable example.

9 a) Which is the reactive centre for electrophilic substitution of Thiazole and oxazole? Explain.

(OR)

   b) Write any two synthetic preparations of the following heterocycles.
       i) 1,2,4-oxadiazole   ii) 1,2,3-triazole

10 a) How do you plan for synthesis of Aspirin and paracetyl amino phenol by retrosynthetic procedure?

(OR)

   b) i) How are 1,3-dicarbonyl used for the synthesis of oxazoles and pyrazoles.
       ii) Discuss the Reactivity of Azepines.

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FACULTY OF SCIENCE

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

SOLUTIONS, ELECTROCHEMISTRY& FUNCTIONAL GROUP ORGANIC CHEMISTRY

PAPER – III

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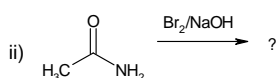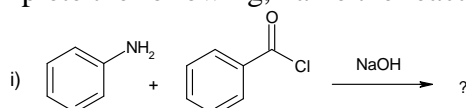
Note: Answer all the following questions from Section-A and Section-B

Section – A   (5x4=20)

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

1. Define and give an example each of the following :
    i) Eutectic point   ii) incongruent melting point.
2. Discuss Ostwald's dilution law, its uses and limitations.
3. Complete the following, name the reaction and explain:

4. Give a brief note on Edmann degradation for primary structure analysis of peptides.
5. Describe the structures of maltose and lactose.

Section – B

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

6. a) Describe the principle and process of fractional distillation of solutions.
    b) What is consolute temperature? Discuss its variation with temperature in Nicotine-Water System.
                                (OR)
    c) State phase rule and explain the various terms involved. Sketch the phase diagram of water system and explain the phase equilibria.

7. a) Define: i) Specific Conductance and ii) Equivalent conductance
    b) What is Kohlrausch's law? Applying Kohlarusch's law, if the 'λ_∞' of HCl, CH_3COONa and NaCl are 426, 91 and 126 mho Cm^2 eq^{-1}, then calculate the 'λ_∞' of acetic acid.
                                (OR)
    c) Explain Debye-Huckel-Onsager theory of strong electrolytes.
    d) Give a note on: i) Gas electrode and ii) Metal-metal ion electrodes.

8. a) How do you prepare the following:
        i) Acid Chlorides   ii) Esters
    b) Describe the Hinsberg's method for separation of mixture of amines.
                                (OR)
    c) Give one reaction to distinguish the following:
        i) Formic acid and acetic acid ii) Aniline and Benzylamine
    d) Explain the Gabriel's Pthalimide Synthesis of amines.

9. a) Explain about: i) Zwitter ion and ii) Electrophoresis
    b) Elucidate the structure of a protein in detail.
                                (OR)
    c) Describe the synthesis of phenylalanine by any two methods.
    d) Give a note on the significance of Complexation of amino acids with Cu^{2+}.

10. a) i) Write a note on Tautomerism of nitroalkanes.
        ii) Write a note on Michael Addition.
                                (OR)
    b) i) Explain any two methods for preparation of nitrobenzene.
        ii) Explain Nef reaction.

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FACULTY OF SCIENCE
M.Sc. (PHYSICS/PE) III – SEMESTER REGULAR EXAMINATIONS, DEC-2017
DIGITAL LOGIC CIRCUITS
PAPER – III

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. Convert $(296)_{10}$ to ( )$_2$ and add $(1C3B)_{16}+(1A2B)_{16}$.
2. Draw the logic diagram of RS flip flop and explain it with truth table.
3. Explain the working of bilateral switch.
4. Explain the Architecture of ROM.
5. What are the signed and unsigned numbers and explain their importance.

<u>Section – B</u>   (5x10=50)

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

6 a) Discuss in detail four variables K-Map taking an example.

(OR)

  b) Discuss the design of four bit full adder with the block diagram.

7 a) What are the locked signals and explain clocked master-slave JK FF writing its truth table and timing diagram.

(OR)

  b) Draw the circuit diagram of up/down counters and explain it with truth table.

8 a) What are the TTL characteristics and draw the circuit of open collector TTL gate. Explain.

(OR)

  b) Draw the circuits of Encoder and Multiplexer and explain their importance.

9 a) What are the various semiconductor memories and explain them with necessary diagrams.

(OR)

  b) Write about PROM and PAL in detail.

10 a) Draw the block diagram of left and right shift register and explain its operation.

(OR)

  b) Discuss code converters and data busing in detail.

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FACULTY OF SCIENCE
M.Sc. (MATHEMATICS) III-SEMESTER REGULAR EXAMINATIONS, DEC-2017
OPERATIONS RESEARCH
PAPER – III

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. Discuss general formulation of Linear Programming Problem (LPP).
2. Define the dual of a linear programming problem.
3. Discuss North – West Corner rule in the transportation problem.
4. State and explain Bellman's principle of optimality in dynamic programming.
5. Discuss the degeneracy in LPP.

<u>Section – B</u>   (5x10=50)

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

6 a) Solve the following LPP graphically:

Max: $Z = 8000 x_1 + 7000 x_2$

Subject to $3x_1 + x_2 \le 66$

$x_1 + x_2 \le 45$

$x_1 \le 20, x_2 \le 44$

and $x_1, x_2 \ge 0$

(OR)

b) Solve the following LP problem by simplex method:

Max: $Z = 5x_1 + 3x_2$

Subject to $3x_1 + 5x_2 \le 15$

$5x_1 + 2x_2 \le 10$

and $x_1, x_2, \ge 0$

7 a) Use duality to obtain an optimum solution to the following LPP:

Max: $Z = 2x_1 + 3x_2$

Subject to $-x_1 + 2x_2 \le 4$

$x_1 + x_2 \le 6$

$x_1 + 3x_2 \le 9$

and $x_1, x_2, > 0$

(OR)

b) Determine the optimal solution to the following LPP.

Max: $Z = 15x_1 + 10x_2$

Subject to $5x_1 + 3x_2 \le 200$

$2x_1 + 2x_2 \le 100$

and $x_1, x_2 \ge 0$

Find the range for the discrete changes in the first component of the requirement vector so as to maintain the optimality of the current optimal solution.

8 a) Determine an initial basic feasible solution to the following Vogel's approximation method.

P.T.O

		Destination				Supply
		D_1	D_2	D_3	D_4	
Origin	O_1	1	2	1	4	30
	O_2	3	3	2	1	50
	O_3	4	2	5	9	20
Demand		20	40	30	10	100

(OR)

b) Describe any method for solving an assignment problem.

9 a) Use Bellman's principle of optimality to minimize $Z = y_1 + y_2 + y_3 \ldots\ldots + y_n$ subject to the constraints: $y_1 y_2 y_3 \ldots\ldots y_n = d$, $y_j \geq 0$ for $j = 1, 2, 3, \ldots\ldots, n$.

(OR)

b) Use dynamic programming technique to solve the following problem:

Max: $Z = x_1 x_2 x_3 x_4$, subject to the constraints:

$x_1 + x_2 + x_3 + x_4 = 12$, $x_1, x_2, x_3, x_4 \geq 0$.

10 a) State and prove the complementary slackedness theorem for primal and dual system.

(OR)

b) Solve the following assignment problem:

		Persons			
		1	**2**	**3**	**4**
	A	10	12	19	11
Tasks	**B**	5	10	7	8
	C	12	14	13	11
	D	8	15	11	9

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FACULTYOF SCIENCES

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

FISHERIES-I

PAPER – III

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. Write briefly about the classification of fisheries.

2. Write about the physico-chemical characteristics of freshwater.

3. Mention in short the criteria used for the selection of fish species for culture?

4. Define transgenic fish. Give examples.

5. How is eutrophication in aquatic water bodies caused? Give one example.

<u>Section – B</u>   (5x10=50)

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

6. a) Give the general account of systematic classification of fishes.
(OR)
   b) Discuss briefly about the fisheries resources and management.

7. a) Explain about the aquatic pollution with suitable example and its impact on fisheries.
(OR)
   b) Describe the ecology of the lentic and the lotic ecosystems.

8. a) Write about the biology of the Indian and exotic major carps.
(OR)
   b) Define the culture systems of prawns and crabs in detail.

9. a) Describe the various fishing crafts and gears.
(OR)
   b) Write about the fish processing and preservation methods.

10.a) Write about the various by-products and value added products of fish.
(OR)
   b) Explain about the dynamics of fish population.

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FACULTY OF SCIENCES
MCA III – SEMESTER REGULAR EXAMINATIONS, DEC- 2017
DESIGN AND ANALYSIS OF ALGORITHMS

PAPER – III

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 do you mean by best case, average case and worst case time complexity of an algorithm.
2. Explain divide and conquer concept?
3. Explain Dynamic Programming?
4. Explain back tracking method?
5. What is Cook's Theorem?

Section – B

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

6.   a) What is an Algorithm? Explain various notations related to Algorithm Performance analysis.

(OR)

   b) Explain various Elementary Data Structures.

7.   a) Explain the Single Source Shortest Paths Problems.

(OR)

   b) Explain the Optimal Merge Patterns.

8.   a) Explain All-Pairs Shortest Paths Problems.

(OR)

   b) Write a Pseudo code to determine Bi connected components and explain.

9.   a) Explain the Graph Coloring Scheme?

(OR)

   b) Explain 0/1 Knapsack Problem in Branch and Bound Technique.

10. a) Explain classes NP-Hard and NP-Complete.

(OR)

   b) Explain AND/OR graph decision problem.

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